





FinancialHub Debuts in Oregon

In 2018, Columbia introduced the NeighborHub branch concept to our metropolitan markets. The new locations feature new technology, a strong connection to the surrounding community and new roles that combine traditional retail deposit and loan sales and support functions. The concept was designed to support vibrant and walkable metropolitan neighborhoods in cities like Seattle, Portland and Boise. Since launching the first NeighborHub, we have worked on adapting the concept to operate in any rural, metro or suburban market.

On Monday July 12, 2021, we relocated our Tigard, Oregon branch and established our first FinancialHub. FinancialHubs feature the same technology and roles as our NeighborHubs as well as features and resources that appeal to small businesses and community organizations. Each location is designed to provide a unique banking experience while helping clients achieve their comprehensive financial goals, including investments, trust services and other financial considerations.



To Our Shareholders:

While 2021 presented challenges with the continued pressures of the global pandemic, your company leveraged opportunities for tremendous growth. As a result, we emerged from this past year as one of the largest and most economically robust banks on the West Coast with more than \$20 billion in total assets and over 150 branches throughout Washington, Oregon, Idaho and northern California.



We announced the acquisition of Bank of Commerce Holdings, the holding company for Merchants Bank of Commerce, in late June.

The transaction provided an entrance into the desirable northern California market through a respected brand with a common relationship-focused style of banking. The deal was completed in a matter of months and teams from both banks underwent a successful systems conversion in March of 2022.

In the days following the successful close of the Bank of Commerce Holdings acquisition we announced a combination with Umpqua Holdings which will create a financial institution that profoundly alters the landscape of banking throughout the West. Once the merger is completed, our combined organization will become the leading Western franchise with more than \$50 billion in assets.

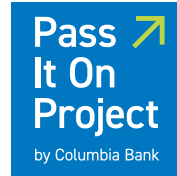
Through it all, your company and its employees simultaneously and successfully managed multiple company-wide initiatives while achieving record loan growth and record annual net income. Supporting our clients and remaining open throughout the difficulties of the pandemic continues to build momentum for your company.

Expanding Our Reach

Growing from one branch in Tacoma, Washington in 1993 to 150 locations throughout the Northwest, Columbia has always demonstrated the ability to take advantage of acquisition opportunities with an inclusive approach. Our proven track record of partnership allowed us to expand beyond the Northwest region and enter the dynamic California market.

By bringing Merchants Bank of Commerce into the Columbia Bank family, we entered into a natural expansion of the company's existing footprint and strengthened our position as a leading regional bank. Even more importantly, we were able to welcome Merchants' family of clients, associates, and shareholders to our company. As a combined entity, our teams continue to capitalize on our relationship-based style of banking and commitment to the communities we serve. We demonstrated that commitment on the first day of combined operations by donating \$50,000 to the Community

Foundation of the North State, based in Redding, California, to help neighbors and businesses impacted by the 2021 wildfires in northern California. Further, our company committed to spending \$500,000 in 2022 to support small businesses throughout northern California as part of our Pass It On Project. The project began in the summer of 2020 to help businesses working to recover from pandemic-related disruptions while providing additional support for communities.



\$500,000

Launching a New Era in Banking

The combination of Columbia Bank and Umpqua Bank will create a historic partnership that will enhance what both banks are able to do for clients, associates and communities while driving significant value for our shareholders.



UMPQUA BANK

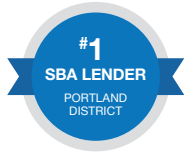
In terms of that value and impact, the merger will create a Western banking franchise unlike any other. The combined company will be the West's leading regional bank with \$43 billion in deposits, including \$16 billion in Oregon, \$15 billion in Washington, \$10 billion in California, and \$2 billion collectively in Idaho and Nevada. Through this partnership, Columbia and Umpqua will build on each company's strong commercial and retail foundations to create an enhanced and even more competitive financial institution.

Just as important, both companies' longstanding commitments to serve their communities will remain central to the combined organization's DNA. Upon close of the merger, we will collectively contribute \$20 million to the charitable foundation of the newly-combined company.

Leading the Way for Small Business

Our growth and community impact rely on our continued emphasis on supporting and increasing wealth for small business clients. This past year, we surpassed a milestone that underscores this key goal. For the first time ever, Columbia became the largest Small Business Administration (SBA) lender for both the Portland and Seattle regions. Ranking in the top spot in these two important markets,

especially during this difficult year, was a significant



accomplishment and testament to the work and partnerships our teams created with each other and our clients. Additionally, we entered the top 20 national ranking for SBA lenders. As a community bank focused on serving the small businesses that fuel our local communities, these rankings demonstrate the work that our bankers are doing every day to help small business clients thrive.

Supporting Those Who Need It Most

2021 marked the seventh year of our signature community outreach program – the Warm Hearts Winter Drive. With support from our employees and clients in four states, we raised a new record of more than \$350,000 to provide warmth and shelter to community members experiencing



\$350,000

RAISED FOR 68 SHELTERS

homelessness. Since 2015, your company has raised more than \$1.8 million for this cause. In addition, your company contributed \$75,000 toward our Warm Homes grant program. Through the program, which helps fund long-term solutions to end homelessness in the Northwest and Northern California, we have donated more than \$350,000 to organizations focused on transitional and permanent housing.

This past year was unlike any other, and your company responded with unwavering support for our clients, employees, communities, and shareholders and executed

a bold vision for unprecedented growth. Throughout the challenges and opportunities of 2021, our bankers redoubled their efforts to build wealth, enhance our communities, and deliver unparalleled customer service. Our people are the greatest asset of Columbia, and their efforts – today and into the future – will continue to build shareholder value while increasing prosperity in the communities we serve.

Sincerely,

A handwritten signature in black ink that reads "Craig D. Eerkes".

Craig D. Eerkes

Chairman of the Board

A handwritten signature in black ink that reads "Clint E. Stein".

Clint E. Stein

President and Chief Executive Officer
Columbia Banking System, Inc. and Columbia Bank

2021
Annual Report



BOARD OF DIRECTORS



Craig D. Eerkes
Chairman of the Board



Laura
Alvarez Schrag



Ford Elsaesser



Mark A.
Finkelstein



Eric Forrest



Thomas M.
Hulbert



Michelle M.
Lantow



Randy Lund



Tracy
Mack-Askew



Mae Fujita
Numata



Elizabeth Seaton



Janine Terrano

EXECUTIVE OFFICERS



Clint E. Stein
President &
Chief Executive Officer



Kumi Y. Baruffi
Executive Vice President &
General Counsel



Aaron Deer
Executive Vice President &
Chief Financial Officer



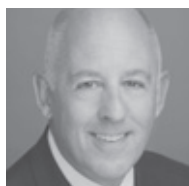
Lisa Dow
Executive Vice President &
Chief Risk Officer



Eric Eid
Executive Vice President &
Chief Innovation and
Technology Officer



Dave C. Lawson
Executive Vice President &
Chief Human Resources Officer



Andy McDonald
Executive Vice President &
Chief Credit Officer



Chris Merrywell
Executive Vice President &
Chief Operating Officer

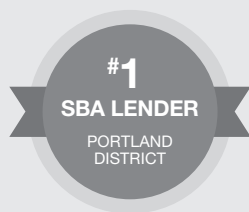


David Moore Devine
Executive Vice President &
Chief Marketing and
Experience Officer

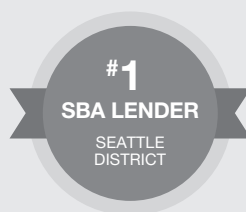
AWARDS RECEIVED



Forbes Magazine
2021 Best Bank in America



Portland District
Small Business Administration
2021 Top SBA Lender



Seattle District
Small Business Administration
2021 Top SBA Lender

**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, 2021

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

Commission File Number 000-20288

COLUMBIA BANKING SYSTEM, INC.

(Exact name of registrant as specified in its charter)

Washington
(State or other jurisdiction of
incorporation or organization)

91-1422237
(I.R.S. Employer
Identification Number)

**1301 A Street
Tacoma, Washington 98402-2156**
(Address of principal executive offices and zip code)

(253) 305-1900
(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

Common Stock, No Par Value
(Title of each class)

COLB
(Trading symbol)

The Nasdaq Stock Market LLC
(Name of each exchange on which registered)

Securities Registered Pursuant to Section 12(g) of the Act: None

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

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

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

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

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

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☐

Emerging growth company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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

The aggregate market value of Common Stock held by non-affiliates of the registrant at June 30, 2021 was \$2,749,660,927 based on the closing sale price of the Common Stock on that date.

The number of shares of registrant's Common Stock outstanding at January 31, 2022 was 78,538,191.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Registrant's definitive 2022 Annual Meeting Proxy Statement.

Part III

COLUMBIA BANKING SYSTEM, INC.
FORM 10-K ANNUAL REPORT
DECEMBER 31, 2021

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Glossary of Acronyms, Abbreviations and Terms

The acronyms, abbreviations and terms listed below are used in various sections of the Form 10-K, including “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Item 8. Financial Statements and Supplementary Data.”

401(k) Plan	401(k) and Profit Sharing Plan	FINRA/SIPC	Financial Industry Regulatory Authority/ Securities Investor Protection Corporation
ACH	Automated Clearing House	FRB	Federal Reserve Bank
ACL	Allowance for Credit Losses	GAAP	Generally Accepted Accounting Principles
AFS	Available for Sale	GDP	Gross Domestic Product
ALLL	Allowance for Loan and Lease Losses	HTM	Held to maturity
ASC	Accounting Standards Codification	IDI	Insured Depository Institutions
ASU	Accounting Standards Update	Intermountain	Intermountain Community Bancorp
ATM	Automated Teller Machine	Interstate Act	Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994
Bank of Commerce	Bank of Commerce Holdings	IRA	Individual Retirement Account
B&O	Business and Occupation	IRS	Internal Revenue Service
Basel III	A comprehensive capital framework and rules for U.S. banking organizations approved by the FRB and the FDIC in 2013	KBW	Keefe, Bruyette & Woods
Basel Committee	Basel Committee on Banking Supervision	LGBTQIA+	Lesbian, gay, bisexual, transgender, queer, intersex, asexual, plus
BHCA	Bank Holding Company Act of 1956	LIBOR	London Interbank Offering Rate
BOLI	Bank Owned Life Insurance	LLC	Limited Liability Company
BSA	Bank Secrecy Act	N/A	Not applicable
Capital Rules	Risk-based capital standards currently applicable to the Company and the Bank	NASDAQ	National Association of Securities Dealers Automated Quotations
CARES Act	Coronavirus Aid, Relief, and Economic Security Act	N/M	Not Meaningful
CCPA	California Consumer Protection Act of 2018	NOL	Net Operating Loss
CPRA	California Privacy Rights Act	OCC	Office of the Comptroller of the Currency
CDI	Core Deposit Intangible	OPPO	Other Personal Property Owned
CECL	Current Expected Credit Loss	OREO	Other Real Estate Owned
CEO	Chief Executive Officer	Pacific Continental	Pacific Continental Corporation
CET1	Common Equity Tier 1	Patriot Act	Includes 2006 amendments to the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 which was intended to combat terrorism.
CFO	Chief Financial Officer	PCD	Purchased Credit Deteriorated
CFPB	Consumer Financial Protection Bureau	PPP	Paycheck Protection Program
COSO	Committee of Sponsoring Organizations of the Treadway Commission	PPPLF	Paycheck Protection Program Liquidity Facility
COVID-19	Novel Coronavirus	RSA	Restricted Stock Award
CRA	Community Reinvestment Act of 1977	RSU	Restricted Stock Unit
DIF	Deposit Insurance Fund	SBA	Small Business Administration
DCF	Discounted Cash Flow	SEC	Securities and Exchange Commission
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act	SERP	Supplemental Executive Retirement Plan
EPS	Earnings Per Share	SOFR	Secured Overnight Financing Rate
ESP Plan	Employee Stock Purchase Plan	SOX	Sarbanes-Oxley Act of 2002
FASB	Financial Accounting Standards Board	Umpqua	Umpqua Holdings Corporation
FDIA	Federal Deposit Insurance Act	Unit Plans	Supplemental compensation arrangements
FDIC	Federal Deposit Insurance Corporation	TDRs	Troubled Debt Restructurings
Federal Reserve	Board of Governors of the Federal Reserve System	West Coast	West Coast Bancorp
FHLB	Federal Home Loan Bank of Des Moines		

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This annual report on Form 10-K may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, but are not limited to, statements about our plans, objectives, expectations and intentions that are not historical facts, and statements identified by words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “should,” “projects,” “seeks,” “estimates” or the negative version of those words or other comparable words or phrases of a future or forward-looking nature, as well as the continuing effects of the COVID-19 pandemic on the Company’s business, operations, financial performance and prospects. Forward-looking statements are based on current beliefs and expectations of management and are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control. In addition, forward-looking statements are subject to assumptions with respect to future business strategies and decisions that are subject to change. In addition to the factors set forth in the sections titled “Risk Factors,” “Business” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this Form 10-K, the following factors, among others, could cause actual results to differ materially from the anticipated results expressed or implied by forward-looking statements:

- national and global economic conditions could be less favorable than expected or could have a more direct and pronounced effect on us than expected and adversely affect our ability to continue internal growth and maintain the quality of our earning assets;
- the markets where we operate and make loans could face challenges;
- the risks presented by the economy, which could adversely affect credit quality, collateral values, including real estate collateral, investment values, liquidity and loan originations and loan portfolio delinquency rates;
- continued increases in inflation, and the risk that information may differ, possibly materially, from expectations, and actions taken by the Federal Reserve in response to inflation and their potential impact on economic conditions;
- risks related to the proposed merger with Umpqua including, among others, (i) failure to complete the merger with Umpqua or unexpected delays related to the merger or either party’s inability to obtain regulatory approvals or satisfy other closing conditions required to complete the merger, (ii) regulatory approvals resulting in the imposition of conditions that could adversely affect the combined company or the expected benefits of the transaction, (iii) certain restrictions during the pendency of the proposed transaction with Umpqua that may impact the parties’ ability to pursue certain business opportunities or strategic transactions, (iv) diversion of management’s attention from ongoing business operations and opportunities, (v) cost savings and any revenue synergies from the merger may not be fully realized or may take longer than anticipated to be realized, (vi) the integration of each party’s management, personnel and operations will not be successfully achieved or may be materially delayed or will be more costly or difficult than expected, (vii) deposit attrition, customer or employee loss and/or revenue loss as a result of the announcement of the proposed merger, (viii) expenses related to the proposed merger being greater than expected, and (ix) shareholder litigation that could prevent or delay the closing of the proposed merger or otherwise negatively impact the Company’s business and operations;
- the efficiencies and enhanced financial and operating performance we expect to realize from investments in personnel, acquisitions (including the recent acquisition of Bank of Commerce) and infrastructure may not be realized;
- the ability to successfully integrate Bank of Commerce, or to integrate future acquired entities;
- interest rate changes could significantly reduce net interest income and negatively affect asset yields and funding sources;
- the effect of the discontinuation or replacement of LIBOR;
- results of operations following strategic expansion, including the impact of acquired loans on our earnings, could differ from expectations;
- changes in the scope and cost of FDIC insurance and other coverages;
- changes in accounting policies or procedures as may be required by the FASB or other regulatory agencies could materially affect our financial statements and how we report those results, and expectations and preliminary analysis relating to how such changes will affect our financial results could prove incorrect;
- changes in laws and regulations affecting our businesses, including changes in the enforcement and interpretation of such laws and regulations by applicable governmental and regulatory agencies;
- increased competition among financial institutions and nontraditional providers of financial services;
- continued consolidation in the financial services industry resulting in the creation of larger financial institutions that have greater resources could change the competitive landscape;
- the goodwill we have recorded in connection with acquisitions could become impaired, which may have an adverse impact on our earnings and capital;
- our ability to identify and address cyber-security risks, including security breaches, “denial of service attacks,” “hacking” and identity theft;
- any material failure or interruption of our information and communications systems;
- inability to keep pace with technological changes;

- our ability to effectively manage credit risk, interest rate risk, market risk, operational risk, legal risk, liquidity risk and regulatory and compliance risk;
- failure to maintain effective internal control over financial reporting or disclosure controls and procedures;
- the effect of geopolitical instability, including wars, conflicts and terrorist attacks;
- our profitability measures could be adversely affected if we are unable to effectively manage our capital;
- the risks from climate change and its potential to disrupt our business and adversely impact the operations and creditworthiness of our customers;
- natural disasters, including earthquakes, tsunamis, flooding, fires and other unexpected events;
- the effect of COVID-19 and other infectious illness outbreaks that may arise in the future, which has created significant impacts and uncertainties in U.S. and global markets;
- changes in governmental policy and regulation, including measures taken in response to economic, business, political and social conditions, including with regard to COVID-19; and
- the effects of any damage to our reputation resulting from developments related to any of the items identified above.

You should take into account that forward-looking statements speak only as of the date of this report. Given the described uncertainties and risks, we cannot guarantee our future performance or results of operations and you should not place undue reliance on forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required under federal securities laws.

PART I

ITEM 1. BUSINESS

General

Columbia Banking System, Inc. (referred to in this report as “we,” “our,” “the Company” and “Columbia”) is a registered bank holding company whose wholly owned banking subsidiary is Columbia State Bank (“Columbia Bank” or “the Bank”). Established in 1993 in Tacoma, Washington, we provide a full range of banking services to small and medium-sized businesses, professionals and individuals throughout Washington, Oregon, Idaho and California. The Company’s subsidiary Columbia Trust Company (“Columbia Trust”) is an Oregon trust company that provides agency, fiduciary and other related trust services with offices in Washington, Oregon and Idaho.

The vast majority of Columbia Bank’s loans and deposits are within its service areas in Washington, Oregon, Idaho and California. Columbia Bank is a Washington state-chartered commercial bank, the deposits of which are insured in whole or in part by the FDIC. Columbia Bank is subject to regulation by the FDIC, the Washington State Department of Financial Institutions Division of Banks, the Oregon Department of Consumer and Business Services Division of Financial Regulation, the Idaho Department of Finance and the California Department of Financial Protection and Innovation. Although Columbia Bank is not a member of the Federal Reserve System, the Federal Reserve has certain supervisory authority over the Company, which can also affect Columbia Bank.

Business Overview

Having celebrated our 28th anniversary in 2021, our goal is to be a leading West Coast regional community banking company while consistently increasing shareholder value. We continue to build on our reputation for exceptional customer satisfaction in order to be recognized as the bank of choice for individual and business customers in all markets we serve.

We have established a network of 153 branches in Washington, Oregon, Idaho and California as of December 31, 2021, from which we intend to grow market share. We operate 68 branches in 21 counties in the state of Washington, 59 branches in 16 counties in Oregon, 15 branches in 10 counties in Idaho and 11 branches in seven counties in California.

Our branch system funds our lending activities and allows us to better serve both retail and business depositors. We believe this approach enables us to expand lending activities while attracting a stable deposit base and enhancing utilization of our full range of products and services. To support our strategy of market penetration and increased profitability, while continuing our personalized banking approach, we have invested in experienced banking and administrative personnel and have incurred related costs in the creation of our branch network. Our branch system and other delivery channels are continually evaluated as an important component of ongoing efforts to improve efficiencies without compromising customer service. We have continued to enhance our digital services by offering a seamless digital experience. Our suite of digital products allows clients to easily manage their finances across all devices, enabling them to bank when, how and where they choose.

Business Strategy

Our business strategy is to provide our customers with the financial sophistication and product depth of a regional banking company while retaining the appeal and service level of a community bank. We continually evaluate our existing business processes while focusing on maintaining asset quality and a diversified loan and deposit portfolio. We continue to build our strong deposit base, expanding total revenue and controlling expenses in an effort to gain operational efficiencies and increase our return on average tangible equity. As a result of our strong commitment to highly personalized, relationship-oriented customer service, our diverse products, our strategic branch locations and the long-standing community presence of our managers and staff, we believe we are well positioned to attract and retain new customers and to increase our market share of loans, deposits, investments and other financial services. We are dedicated to increasing market share in the communities we serve by continuing to leverage our existing branch network and considering business combinations that are consistent with our expansion strategy up and down the West Coast. We have grown our franchise over the past decade through a combination of acquisitions and organic growth.

Consistent with that strategy, on October 12, 2021, we announced a definitive agreement to combine with Umpqua Holdings Corporation, the parent company of Umpqua Bank headquartered in Portland, Oregon, with \$30.64 billion in assets as of December 31, 2021. The combined company will have over 300 banking offices throughout Washington, Oregon, Idaho, California and Nevada. Under the terms of the agreement, Umpqua shareholders will receive 0.5958 of a share of Columbia stock for each Umpqua share. The combined company will operate under the Columbia Banking System name and will trade under Columbia Banking’s ticker symbol “COLB.” Regulatory applications have been filed and shareholders of both companies overwhelmingly approved the combination at special shareholder meetings on January 26, 2022. We expect the transaction to close in mid-2022.

In addition, on October 1, 2021 the Company completed its acquisition of Bank of Commerce. The Company acquired approximately \$2.04 billion in assets, including \$1.08 billion in loans measured at fair value, and approximately \$1.74 billion in deposits. See Note 2 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report for further information regarding this acquisition.

Products & Services

We place the highest priority on customer service and assist our clients in making informed decisions when selecting from the products and services we offer. We continually review our product and service offerings to ensure that we provide our customers with the tools to meet their financial needs. A more complete listing of all the services and products available to our customers can be found on our website: www.columbiabank.com (information contained on our website is not incorporated by reference into this report). Some of the core products and services we offer include:

Personal Banking	Business Banking	Wealth Management
• Checking and Savings Accounts • Debit and Credit Cards • Digital Banking • Personal Loans • Home Loans • Foreign Currency	• Checking and Savings Accounts • Debit and Credit Cards • Business Loans • Professional Banking • Treasury Management • Merchant Card Services • International Banking • Digital Banking	• Financial Services • Private Banking • Trust and Investment Services

Personal Banking: We offer our personal banking customers an assortment of account products including noninterest and interest-bearing checking, savings, money market and certificate of deposit accounts. Overdraft protection is also available with direct links to the customer’s checking account. Personal banking customers may also choose from a variety of loan products including home mortgages for purchases and refinances, home equity loans and lines of credit, and other personal loans. Eligible personal banking customers with checking accounts are provided a Visa® Debit Card. Further, a variety of Visa® Credit Cards are available to eligible personal banking customers.

In addition, Columbia Connect, our personal digital banking platform, allows our personal banking customers to safely and securely conduct their banking business 24 hours a day, 7 days a week across all of their devices. Columbia Connect has simple navigation and provides access to frequently used features including depositing checks, paying bills, transferring funds, or locating the nearest Columbia Bank branch or ATM.

Business Banking: A variety of checking, savings, interest-bearing money market and certificate of deposit accounts are offered to business banking customers to satisfy all their banking needs. In addition to these core banking products, we provide a breadth of services to support the complete financial needs of small and middle market businesses including Business Debit and Credit Cards, Business Loans, Professional Banking, Treasury Management, Merchant Card Services, and International Banking. We offer several online and mobile banking options to our business customers, allowing them the flexibility to manage business finances from a wide range of locations.

Business Debit and Credit Cards

Our business banking customers are offered a selection of Visa® Cards including the Business Debit Card that works like a check wherever Visa® is accepted. We also partner with Elan Financial Services to offer a variety of Visa® Credit Cards that come with important business features including expense management tools, free employee cards and added security benefits. A specialty community card for nonprofit organizations and municipalities is also available.

Business Loans

We offer a variety of loan products tailored to meet the diverse needs of business banking customers. Business loan products include agricultural loans, asset-based loans, builder and other commercial real estate loans, and loans guaranteed by the SBA. In addition, we offer a suite of Business Edge loans designed for small businesses looking to expand, purchase equipment, or in need of working capital.

Professional Banking

Columbia Professional Bankers are uniquely qualified to help dentists, physicians and veterinarians acquire, build and grow their practice. We offer tailored banking solutions delivered by experienced bankers with the industry knowledge necessary to meet their business's unique needs.

Treasury Management

Columbia Bank's diversified Treasury Management Programs are tailored to meet specific banking needs of each individual business. We combine technology with integrated operations and local expertise for safe, powerful, flexible solutions. Columbia's clients, of all sizes, choose from a full range of transaction and Treasury Management tools to gain more control over their money. Treasury Management solutions include Business Online and Mobile Banking, Business Bill Pay, ACH collections and payments, Remote Deposit Capture and a variety of tools to protect against fraud and manage excess funds.

Merchant Card Services

We partner with Worldpay to provide businesses with a broad range of payment acceptance solutions to meet their customer's needs. Our Merchant Card Services provides businesses with sophisticated technology, competitive pricing and best-in-class service for their merchant needs.

International Banking

Columbia's International Banking Department offers a range of financial services to help our business customers explore global markets and conduct international trade smoothly and expediently. We are proud to provide small and mid-size businesses with the same caliber of expertise and personalized service that national banks usually limit to large businesses. Our experience with foreign currency exchange, letters of credit, foreign collections and trade finance services can help companies open the door to new markets and suppliers.

Wealth Management: We offer tailored solutions to individuals, families and professional businesses in the areas of financial services and private banking, as well as trust and investment services.

CB Financial Services

CB Financial Services⁽¹⁾ offers a comprehensive array of financial solutions that focuses on wealth management by delivering personalized service and experience through dedicated financial advisors serving various geographical areas.

Financial Services solutions include:

- **Financial Planning:** Asset Allocation, Net Worth Analysis, Estate Planning & Preservation⁽²⁾, Education Funding and Wealth Transfer.
- **Wealth Management:** Professional Asset Management, Tailored Investment Strategies and Professional Money Managers.
- **Insurance Solutions:** Long-Term Care and Life and Disability Insurance.
- **Individual Retirement Solutions:** Retirement Planning, Retirement Income Strategies and Traditional and Roth IRAs.
- **Business Solutions:** Business Retirement Plans, Key Person Insurance, Business Succession Planning and Deferred Compensation Plans.

(1) Securities and insurance products are offered through Cetera Investment Services LLC (doing insurance business in California as CFGIS Insurance Agency), member FINRA/SIPC. Advisory services are offered through Cetera Investment Advisers LLC. Neither firm is affiliated with the financial institution where investment services are offered.

* Investment products are not FDIC insured * No bank guarantee * Not a deposit * Not insured by any federal government agency * May lose value.

(2) For a comprehensive review of your personal situation, always consult a tax or legal advisor. Neither Cetera, nor any of its representatives may give legal or tax advice.

Private Banking

Columbia offers affluent clientele and their businesses complex financial solutions, such as deposit and treasury management services, credit services and wealth management strategies. Each private banker coordinates a relationship team of experienced financial professionals to meet the unique needs of each discerning customer.

Trust and Investment Services: Through our Columbia Trust Company subsidiary, we offer a wide range of high quality fiduciary, investment and administrative trust services, coupled with local, personalized attention to the unique requirements of each trust. Services include Personal Trusts, Special Needs (Supplemental) Trusts, Estate Settlement Services, Investment Agency and Charitable Management Services. A more complete listing of all the services and products available to our customers can be found on Columbia Trust's website: www.columbiatrustcompany.com (information contained on Columbia Trust's website is not incorporated by reference into this report).

Competition

Our industry is highly competitive. Several other financial institutions with greater resources compete for banking business in our market areas. These competitors have the ability to make larger loans, finance extensive advertising and promotional campaigns, access international financial markets and allocate their investment assets to regions of highest yield and demand. In addition to competition from other banking institutions, we continue to compete with non-banking companies such as credit unions, brokerage houses, financial technology companies and other financial services companies. We compete for deposits, loans and other financial services by offering our customers similar breadth of products as our larger competitors while delivering a more personalized service level.

Human Capital

At Columbia Bank, we strive to recruit high-performing talent by providing competitive compensation packages. We emphasize a culture of kindness and positivity, encouraging behaviors consistent with our Do RIGHT¹ values and promoting strong personal relationships. We seek to create a workplace where employees care about the person next to them, where they root for the client down the street and where they do not just want the best for their community – they also participate in making it happen.

Effective January 1, 2020, we added a Chief Marketing & Experience Officer to the Company's executive team whose focus is to assist and enhance the overall employee experience – from recruitment through retirement. We strongly believe that our success depends on employees understanding how their work contributes to our overall strategy. Open and direct communication is encouraged through a variety of channels including quarterly all-company CEO update calls, frequent email communications, our internal intranet and employee engagement surveys. In 2021, we added a Labor and Human Rights Principles statement further emphasizing our expectations including non-discrimination practices, mental health management, work-life balance, employment security, training and education and human rights.

Our continued commitment to employees is demonstrated by Columbia Bank's being honored as a Best Place to Work across our footprint. Columbia Bank has been named one of Washington's Best Places to Work by *Puget Sound Business Journal* 13 times. In addition, Columbia has been named a Top Place to Work in Oregon and SW Washington by *The Oregonian* and one of the Best Places to Work in Idaho according to *Populus Marketing Research*.

Demographics: As of December 31, 2021 the company employed 2,260 full and part-time employees. None of these employees is represented by a collective bargaining agreement. During fiscal year 2021, we hired 565 employees. Our voluntary annual turnover rate was 28.8% in 2021, which compares to 18.3% in 2020.

Diversity, Equity and Inclusion: Columbia Bank promotes diversity and equity and fosters an inclusive work environment that supports our workforce and the communities we serve. Our goal is to recruit the best qualified employees regardless of gender, ethnicity or other protected traits and it is our policy to comply with all laws applicable to discrimination in the workplace. We continue to enhance our diversity, equity and inclusion practices, which are guided by our executive leadership team and overseen by the Board of Director's Governance and Nominating Committee. We have partnerships with Circa, Bankwork\$ and Hiring our Heroes to engage and attract underrepresented talent populations.

¹ The Do RIGHT values consist of:

R: Build enduring RELATIONSHIPS with clients and each other

I: Drive INNOVATION that simplifies life and work

G: Seek continuous GROWTH in your personal and professional development

H: Commit with HEART to serve others

T: Extend TRUST in order to receive it

Since 2019, we have engaged with third party consulting firms to expand our diversity, equity and inclusion practices throughout the bank, which have included training for our board, executive teams, senior management teams and all managers. We have also held multiple executive management listening sessions with employees who identify as people of color, women, members of the LGBTQIA+ community and employees with disabilities. We are committed to further expansion and deepening of our diversity, equity and inclusion program and practices in 2022.

Compensation and Benefits: We value our employees and pride ourselves on providing a professional work environment accompanied by comprehensive pay and benefit programs. We are committed to providing flexible and value-added benefits to our employees through a “Total Compensation Philosophy” which includes salary, bonus and equity award opportunities, profit sharing and 401k match funding. We provide a complete benefit suite including a variety of medical and dental plans, health savings plans, flexible spending accounts, life insurance and an employee stock purchase plan that allows all employees the opportunity to purchase company stock at a discount. We respect our employee’s personal time needs offering paid time-off for vacation, illness and life events. If desired, employees also have the option to purchase up to an extra week of vacation each year. In addition, to empower and encourage employees to make a personal difference in the communities where they live and work, Columbia Bank offers up to 40 hours a year of paid volunteer time.

Professional Development & Learning: We strongly encourage and support continuous learning and development, and we invest in all our employees by providing educational opportunities through internal and external sources. These include, but are not limited to, job-specific training, compliance updates, anti-corruption training for all staff including management, safety and security protocols, and information on new product and service offerings. Additionally, we have a robust leadership development and succession-planning program that includes leadership excellence programs through action learning, on-the-job training, and focused individual development plans. We are an industry leader in offering an internal coaching program, provided by our internal International Coaching Federation Professional certified coaches. In response to the impact of COVID-19 that began in 2020, we have continued to leverage virtual training offering robust training both internally and through industry and professional associations.

Workplace Safety & Wellness: Columbia Bank has detailed policies and plans in place to respond to physical threats and related risks in the workplace. While COVID-19 amplified the focus on safety and wellness, Columbia Bank was able to leverage existing policies and resources to support both physical and mental health for all employees. This included an employee assistance program and different channels for speaking with medical professionals such as *98point6*, *Doctor on Demand*, *Talkspace*, *Care Chat* and enhanced access to E-visits, video visits and access to consulting nurses.

With regard to COVID-19, we had a phased, detailed and well-tested pandemic plan in place and began executing the first phase in the first quarter of 2020. This included moving employees capable of working from home to remote work and implementing social distancing and cleaning protocols that adhere to Center for Disease Control recommendations in all of our facilities, as well as complying with individual state restrictions. We have continued to follow that plan throughout 2021 as new variants have emerged, escalating our response at predetermined trigger points.

Available Information

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, periodic reports on Form 8-K, proxy statements and other information with the United States SEC. The public may obtain copies of these reports and any amendments at the SEC’s website: www.sec.gov.

Additionally, reports filed with the SEC can be obtained free of charge through our website at www.columbiabank.com. These reports are made available through our website as soon as reasonably practicable after they are filed electronically with the SEC. We also make available on that website our Code of Ethics for Senior Financial Officers, our Corporate Governance Policy, and the charters for certain committees of our Board of Directors. Any changes to or waiver of our Code of Ethics for Senior Financial Officers, will be posted on that website. Information contained on our website is not incorporated by reference into this report.

Supervision and Regulation

The following discussion provides an overview of certain elements of the extensive regulatory framework applicable to the Company and Columbia State Bank, which operates under the name Columbia Bank in Washington, Oregon, Idaho and California. This regulatory framework is primarily designed for the protection of depositors, customers, federal deposit insurance funds and the banking system as a whole, rather than specifically for the protection of shareholders or non-depository creditors. Due to the breadth and growth of this regulatory framework, our costs of compliance continue to increase in order to monitor and satisfy these requirements.

To the extent that this section describes statutory and regulatory provisions, it is qualified by reference to those provisions. These statutes and regulations, as well as related policies, are subject to change by Congress, state legislatures and federal and state regulators. Changes in statutes, regulations or regulatory policies applicable to us, including the interpretation or implementation thereof, cannot be predicted, but may have a material effect on our business, financial condition, or results of operations. Our continued efforts to monitor and comply with new regulatory requirements and developments add to the complexity and cost of our business.

Federal and State Bank Holding Company Regulation

General. The Company is a bank holding company as defined in the BHCA, and is therefore subject to regulation, supervision and examination by the Federal Reserve. In general, the BHCA limits the business of bank holding companies to owning or controlling banks and engaging in other activities closely related to banking. The Company must file reports with and provide the Federal Reserve such additional information as it may require. Under the Financial Services Modernization Act of 1999, a bank holding company may apply to the Federal Reserve to become a financial holding company, and thereby engage (directly or through a subsidiary) in certain expanded activities deemed financial in nature, such as securities and insurance underwriting. As of the date of this report, we have not elected to be treated as a financial holding company, but we intend to elect such status in connection with our proposed merger with Umpqua.

Holding Company Bank Ownership. The BHCA requires every bank holding company to obtain the prior approval of the Federal Reserve before (i) acquiring, directly or indirectly, ownership or control of any voting shares of another bank or bank holding company if, after such acquisition, it would own or control more than 5% of such shares; (ii) acquiring all or substantially all of the assets of another bank or bank holding company; or (iii) merging or consolidating with another bank holding company. In addition, under the Bank Merger Act of 1960, as amended, the prior approval of the FDIC is required for the Bank to merge with another bank or purchase all or substantially all of the assets or assume any of the deposits of another FDIC-insured depository institution. In reviewing applications seeking approval of merger and acquisition transactions, bank regulators consider, among other things, the competitive effect and public benefits of the transactions, the capital position and managerial resources of the combined organization, the risks to the stability of the U.S. banking or financial system, the applicant's performance record under the CRA, the applicant's compliance with other laws, including fair housing and consumer protection laws, and the effectiveness of all organizations involved in combating money laundering activities. In addition, failure to implement or maintain adequate compliance programs could cause bank regulators not to approve an acquisition where regulatory approval is required or to prohibit an acquisition even if approval is not required.

In July 2021, the Biden administration issued an executive order on competition, which included provisions relating to bank mergers. These provisions "encourage" the Department of Justice and the federal banking regulators to update guidelines on banking mergers and to provide more scrutiny of bank mergers. A number of large bank deals that were pending at the time of the executive order have not yet obtained approval, despite their being filed earlier in 2021. We are unable to predict what impact the executive order will have on the timing of or ability to obtain regulatory approvals of mergers, including our pending merger with Umpqua.

Holding Company Control of Nonbanks. With some exceptions, the BHCA also prohibits a bank holding company from acquiring or retaining direct or indirect ownership or control of more than 5% of the voting shares of any company which is not a bank or bank holding company, or from engaging directly or indirectly in activities other than those of banking, managing or controlling banks, or providing services for its subsidiaries. The principal exceptions to these prohibitions involve certain non-bank activities that, by statute or by Federal Reserve regulation or order, have been identified as activities so closely related to the business of banking as to be a proper incident thereto, such as Columbia Trust.

Tying Arrangements. We are prohibited from engaging in certain tie-in arrangements in connection with any extension of credit, sale or lease of property or furnishing of services. For example, with certain exceptions, neither the Company nor its subsidiaries may condition an extension of credit to a customer on either (i) a requirement that the customer obtain additional services provided by us; or (ii) an agreement by the customer to refrain from obtaining other services from a competitor.

Support of Subsidiary Banks. Under Federal Reserve policy and federal law, the Company is required to act as a source of financial and managerial strength to Columbia Bank, including at times when we may not be in a financial position to provide such resources, and it may not be in our, or our shareholders', best interests to do so. This means that the Company is required to commit resources, as necessary, to support Columbia Bank. Any capital loans a bank holding company makes to its subsidiary banks are subordinate to deposits and to certain other indebtedness of those subsidiary banks.

State Law Restrictions. As a Washington corporation, the Company is subject to certain limitations and restrictions under applicable Washington corporate law. For example, state law restrictions in Washington include limitations and restrictions relating to indemnification of directors, distributions to shareholders, transactions involving directors, officers or interested shareholders, maintenance of books, records and minutes, and observance of certain corporate formalities.

Federal and State Regulation of Columbia Bank

General. The deposits of Columbia Bank, a Washington chartered commercial bank with branches in Washington, Oregon, Idaho and California, are insured by the FDIC. As a result, Columbia Bank is subject to supervision and regulation by the Washington Department of Financial Institutions' Division of Banks and the FDIC. In connection with our proposed merger with Umpqua, it is proposed that the Bank will merge with and into Umpqua Bank, following which our bank subsidiary will be subject to supervision and regulation by the Oregon Department of Consumer and Business Services Division of Financial Regulation. These agencies have the authority to prohibit banks from engaging in what they believe constitute unsafe or unsound banking practices. Furthermore, under the FDIA, insurance of deposits may be terminated by the FDIC if the FDIC finds that the insured depository institution has engaged in unsafe and unsound practices, is in an unsafe or unsound condition to continue operations or has violated any applicable law, regulation, rule, order or condition imposed by the FDIC. With respect to branches of Columbia Bank in Oregon, Idaho and California, the Bank is also subject to certain laws and regulations governing its activities in those states.

Consumer Protection. The Bank is subject to a variety of federal and state consumer protection laws and regulations that govern its relationship with consumers, including laws and regulations that impose certain disclosure requirements and regulate the manner in which we take deposits, make and collect loans, and provide other services. Failure to comply with these laws and regulations may subject the Bank to various penalties, including but not limited to, enforcement actions, injunctions, fines, civil monetary penalties, criminal penalties, punitive damages, and the loss of certain contractual rights. As an insured depository institution with assets of \$10 billion or more, the CFPB has primary enforcement and exclusive supervision authority for federal consumer financial laws over the Bank. This includes the right to obtain information about the Bank's activities and compliance systems and procedures and to detect and assess risks to consumers and markets. The CFPB engages in several activities, including (i) investigating consumer complaints about credit cards and mortgages, (ii) launching supervisory programs, (iii) conducting research for and developing mandatory financial product disclosures, and (iv) engaging in consumer financial protection rulemaking. Columbia Bank has established a compliance management system designed to ensure consumer protection.

Community Reinvestment. The CRA requires that, in connection with examinations of financial institutions within their jurisdiction, the Federal Reserve, OCC or the FDIC evaluate the record of the financial institution in meeting the credit needs of its local communities, including low- and moderate-income neighborhoods, consistent with the safe and sound operation of the institution. A bank's community reinvestment record is also considered by the applicable banking agencies in evaluating mergers, acquisitions and applications to open a branch or facility. The Bank's failure to comply with the CRA could, among other things, result in the denial or delay of such transactions. The Bank received a rating of "outstanding" in its most recently completed CRA examination (for the period of April 1, 2017 through May 4, 2020). In May 2020, the OCC issued a final CRA rule (the "2020 CRA Rule"), which became effective October 1, 2020, which created a new CRA framework. In December 2021, the OCC issued a new final CRA rule (the "2021 CRA Rule") to rescind the 2020 CRA Rule and replace it with rules based on the 1995 CRA rules, as revised, that were issued jointly by the OCC, Federal Reserve and FDIC. Due to the fact that many aspects of the 2020 CRA Rule had not yet been implemented and because of certain transition provisions in the 2021 CRA Rule, the Company does not expect the 2021 CRA Rule to have a significant effect on the Bank. Management will continue to evaluate any changes to CRA regulations.

Anti-Money Laundering and Anti-Terrorism. The BSA requires all financial institutions, including banks to, among other things, establish a risk-based system of internal controls reasonably designed to prevent money laundering and the financing of terrorism. It includes a variety of recordkeeping and reporting requirements (such as cash and suspicious activity reporting) as well as due diligence/know-your-customer documentation requirements.

The Patriot Act further augments and strengthens the requirements set forth in the BSA. The Patriot Act, in relevant part, (i) prohibits banks from providing correspondent accounts directly to foreign shell banks; (ii) imposes due diligence requirements on banks opening or holding accounts for foreign financial institutions or wealthy foreign individuals; (iii) requires financial institutions to establish an anti-money-laundering compliance program; and (iv) eliminates civil liability for persons who file suspicious activity reports. The Patriot Act also includes provisions providing the government with power to investigate terrorism, including expanded government access to bank account records. An institution that fails to meet these standards may be subject to regulatory sanctions, including limitations on growth. Columbia Bank has established compliance programs designed to comply with the BSA and the Patriot Act.

Transactions with Affiliates; Insider Credit Transactions. Transactions between the Bank and its subsidiaries, on the one hand, and the Company or any other subsidiary, on the other hand, are regulated under federal banking law. The Federal Reserve Act imposes quantitative and qualitative requirements and collateral requirements on covered transactions by the Bank with, or for the benefit of, its affiliates. In addition, subsidiary banks of a bank holding company are subject to restrictions on extensions of credit to the holding company or its subsidiaries, on investments in securities of the holding company or its subsidiaries and on the use of their securities as collateral for loans to any borrower. These regulations and restrictions may limit the Company's ability to obtain funds from Columbia Bank for its cash needs, including funds for payment of dividends, interest and operational expenses.

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 interests of such persons. Extensions of credit (i) must be made on substantially the same terms, including interest rates and collateral, and follow credit underwriting procedures that are at least as stringent as those prevailing at the time for comparable transactions with persons not related to the lending bank; and (ii) 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 insiders. A violation of these restrictions may result in the assessment of substantial civil monetary penalties, regulatory enforcement actions, and other regulatory sanctions. The Columbia Bank board has established controls to ensure compliance with regulatory expectations around affiliated transactions.

Regulation of Management. Federal law (i) sets forth circumstances under which officers or directors of a bank may be removed by the institution's federal supervisory agency; (ii) places constraints on lending by a bank to its executive officers, directors, principal shareholders, and their related interests; and (iii) generally prohibits management personnel of a bank from serving as directors or in other management positions of another financial institution whose assets exceed a specified amount or which has an office within a specified geographic area.

Safety and Soundness Standards. Certain non-capital safety and soundness standards are also imposed upon banks. These standards cover internal controls, information systems and internal audit systems, loan documentation, credit underwriting, interest rate exposure, asset growth, compensation, fees and benefits, such other operational and managerial standards as the agency determines to be appropriate, and standards for asset quality, earnings and stock valuation. An institution that fails to meet these standards may be subject to regulatory sanctions, including limitations on growth. Columbia Bank has established policies and risk management activities designed to ensure the safety and soundness of the Bank.

Interstate Banking and Branching

The Interstate Act together with the Dodd-Frank Act relaxed prior interstate branching restrictions under federal law by permitting, subject to regulatory approval, state and federally chartered commercial banks to establish branches in states where the laws permit banks chartered in such states to establish branches. The Interstate Act requires regulators to consult with community organizations before permitting an interstate institution to close a branch in a low-income area. Federal banking agency regulations prohibit banks from using their interstate branches primarily for deposit production and the federal banking agencies have implemented a loan-to-deposit ratio screen to ensure compliance with this prohibition.

Dividends

Columbia is a legal entity separate and distinct from the Bank and its other subsidiaries. As a bank holding company, Columbia is subject to certain restrictions on its ability to pay dividends under applicable banking laws and regulations. Federal bank regulators are authorized to determine under certain circumstances relating to the financial condition of a bank holding company or a bank that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof. In particular, federal bank regulators have stated that paying dividends that deplete a banking organization's capital base to an inadequate level would be an unsafe and unsound banking practice and that banking organizations should generally pay dividends only out of current operating earnings. In addition, in the current financial and economic environment, the Federal Reserve has indicated that bank holding companies should carefully review their dividend policy and has discouraged payment ratios that are at maximum allowable levels unless both asset quality and capital are very strong. Federal Reserve policy also provides that a bank holding company should inform the Federal Reserve reasonably in advance of declaring or paying a dividend that exceeds earnings for the period for which the dividend is being paid or that could result in a material adverse change to the bank holding company's capital structure. A significant portion of our income comes from dividends from the Bank, which is also the primary source of our liquidity. In addition to the restrictions discussed above, the Bank is subject to limitations under Washington law regarding the level of dividends that it may pay to the Company (if the proposed merger with Umpqua is completed, the Bank following its merger into Umpqua Bank will be subject to Oregon limitations instead). Washington law limits a bank's ability to pay dividends that are greater than the bank's retained earnings without approval of the applicable banking agency (under Oregon law, a bank may not pay dividends greater than the bank's unreserved retained earnings, deducting therefrom, to the extent not already charged against earnings or reflected in a reserve, 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; 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 institution).

Regulatory Capital Requirements

The Federal Reserve monitors the capital adequacy of the Company on a consolidated basis, and the FDIC and the Washington Department of Financial Institutions' Division of Banks monitor, and if the proposed merger with Umpqua is completed, the Oregon Department of Consumer and Business Services Division of Financial Regulation will monitor the capital adequacy of the Bank. The Capital Rules are based on the December 2010 final capital framework for strengthening international capital standards, known as Basel III, of the Basel Committee. As of December 31, 2021, we and the Bank met all capital adequacy requirements under the Capital Rules, as described below.

The Capital Rules, among other things (i) include a capital measure called CET1, (ii) specify that Tier 1 capital consists of CET1 and "Additional Tier 1 capital" instruments meeting specified requirements and (iii) define CET1 narrowly by requiring that most deductions/adjustments to regulatory capital measures be made to CET1 and not to the other components of capital.

Under the Capital Rules, the minimum capital ratios are (i) 4.5% CET1 to risk-weighted assets, (ii) 6% Tier 1 capital (that is, CET1 plus Additional Tier 1 capital) to risk-weighted assets and (iii) 8% total capital (that is, Tier 1 capital plus Tier 2 capital) to risk-weighted assets.

The Capital Rules also require an institution to establish a capital conservation buffer of CET1 in an amount above the minimum risk-based capital requirements for "adequately capitalized" institutions equal to 2.5% of total risk-weighted assets. Banking institutions with a ratio of CET1 to risk-weighted assets above the minimum but below the capital conservation buffer will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall and the institution's "eligible retained income" (that is, the greater of (i) net income for the preceding four quarters, net of distributions and associated tax effects not reflected in net income and (ii) average net income over the preceding four quarters).

The Capital Rules provide for a number of deductions from and adjustments to CET1. These include, for example, the requirement that mortgage servicing rights, certain deferred tax assets and significant investments in non-consolidated financial entities be deducted from CET1 to the extent that any one such category exceeds 10% of CET1 or all such categories in the aggregate exceed 15% of CET1. The Capital Rules also generally preclude certain hybrid securities, such as trust preferred securities, from being counted as Tier 1 capital for most bank holding companies.

In addition, the Company and the Bank are subject to the final rule adopted by the Federal Reserve, OCC and FDIC in July 2019 relating to simplifications of the capital rules applicable to non-advanced approaches banking organizations. These rules became effective for the Company on April 1, 2020 and provide for simplified capital requirements relating to the threshold deductions for mortgage servicing assets, deferred tax assets arising from temporary differences that a banking organization could not realize through net operating loss carry backs, and investments in the capital of unconsolidated financial institutions, as well as the inclusion of minority interests in regulatory capital.

In December 2017, the Basel Committee published standards that it described as the finalization of the Basel III post-crisis regulatory reforms. The standards are commonly referred to as “Basel IV.” Among other things, these standards revise the Basel Committee’s standardized approach for credit risk (including by recalibrating risk weights and introducing new capital requirements for certain “unconditionally cancellable commitments,” such as home equity lines of credit) and provides a new standardized approach for operational risk capital. Under the Basel framework, these standards will generally be effective on January 1, 2023, with an aggregate output floor phasing in through January 1, 2028. In July 2020, the Basel Committee finalized further revisions to the framework for credit valuation adjustment risk, which are intended to align that framework with the market risk framework. Under the current U.S. capital rules, operational risk capital requirements and a capital floor apply only to advanced approach institutions. The impact of Basel IV on the Company and the Bank will depend on the manner in which it is implemented by the federal bank regulators.

The Bank is also subject to the prompt corrective action regulations pursuant to Section 38 of the FDIA. See “Prompt Corrective Action Framework.”

Prompt Corrective Action Framework

The FDIA requires the federal bank regulators to take prompt corrective action in respect of depository institutions that fail to meet specified capital requirements. The FDIA establishes five capital categories (“well-capitalized,” “adequately capitalized,” “undercapitalized,” “significantly undercapitalized” and “critically undercapitalized”), and the federal bank regulators are required to take certain mandatory supervisory actions, and are authorized to take other discretionary actions, with respect to institutions that are undercapitalized, significantly undercapitalized or critically undercapitalized. The severity of these mandatory and discretionary supervisory actions depends upon the capital category in which the institution is placed. Generally, subject to a narrow exception, the FDIA requires the regulator to appoint a receiver or conservator for an institution that is critically undercapitalized.

Under the rules currently in effect, the following table presents the requirements for an insured depository institution to be classified as well-capitalized or adequately capitalized:

“Well-capitalized”	“Adequately capitalized”
Total capital ratio of at least 10%,	Total capital ratio of at least 8%,
Tier 1 capital ratio of at least 8%,	Tier 1 capital ratio of at least 6%
CET1 ratio of at least 6.5%	CET1 ratio of at least 4.5%, and
Tier 1 leverage ratio of at least 5%, and	Tier 1 leverage ratio of at least 4%.
Not subject to any order or written directive requiring a specific capital level.	

An institution may be downgraded to, or deemed to be in, a capital category that is lower than indicated by its capital ratios if it is determined to be in an unsafe or unsound condition or if it receives an unsatisfactory examination rating with respect to certain matters. A bank’s capital category is determined solely for the purpose of applying prompt corrective action regulations, and the capital category may not constitute an accurate representation of the bank’s overall financial condition or prospects for other purposes.

As of December 31, 2021, we and the Bank met the capital requirements to be well-capitalized with CET1 capital ratios of 13.01% and 13.06%, respectively, Tier 1 capital ratios of 13.01% and 13.06%, respectively, total capital ratios of 14.21% and 14.18%, respectively, and Tier 1 leverage ratios of 8.55% and 8.60%, respectively.

An institution that is categorized as undercapitalized, significantly undercapitalized or critically undercapitalized is required to submit an acceptable capital restoration plan to its appropriate federal bank regulator. Under the FDIA, in order for the capital restoration plan to be accepted by the appropriate federal banking agency, a bank holding company must guarantee that a subsidiary depository institution will comply with its capital restoration plan, subject to certain limitations. The bank holding company must also provide appropriate assurances of performance. The obligation of a controlling bank holding company under the FDIA to fund a capital restoration plan is limited to the lesser of 5% of an undercapitalized subsidiary's assets or the amount required to meet regulatory capital requirements. An undercapitalized institution is also generally prohibited from increasing its average total assets, making acquisitions and capital distributions, establishing any branches or engaging in any new line of business, except in accordance with an accepted capital restoration plan or with the approval of the FDIC. Institutions that are undercapitalized or significantly undercapitalized and either fail to submit an acceptable capital restoration plan or fail to implement an approved capital restoration plan may be subject to a number of requirements and restrictions, including orders to sell sufficient voting stock to become adequately capitalized, requirements to reduce total assets and cessation of receipt of deposits from correspondent banks. Critically undercapitalized depository institutions failing to submit or implement an acceptable capital restoration plan are subject to appointment of a receiver or conservator.

Brokered Deposits

The FDIA prohibits an insured depository institution from accepting brokered deposits or offering interest rates on any deposits significantly higher than the prevailing rate in the bank's normal market area or nationally (depending upon where the deposits are solicited), unless it is well-capitalized or is adequately capitalized and receives a waiver from the FDIC. A depository institution that is adequately capitalized and accepts brokered deposits under a waiver from the FDIC may not pay an interest rate on any deposit in excess of 75 basis points over certain prevailing market rates.

On December 15, 2020, the FDIC issued a final rule intended to modernize its brokered deposit regulations in light of modern deposit-taking methods. The final rule establishes a new framework for certain provisions of the "deposit broker" definition and amends the FDIC's interest rate methodology for calculating the national rate, the national rate cap, and the local market rate cap. The final rule became effective on April 1, 2021 with an extended compliance date of January 1, 2022.

Regulatory Oversight and Examination

The Federal Reserve conducts periodic inspections of bank holding companies. The supervisory objectives of the inspection program are to ascertain whether the financial strength of the bank holding company is being maintained on an ongoing basis and to determine the effects or consequences of transactions between a holding company or its non-banking subsidiaries and its subsidiary banks.

Banks are subject to periodic examinations by their primary regulators. Bank examinations have evolved from reliance on transaction testing in assessing a bank's condition to a risk-focused approach. These examinations are extensive and cover the entire breadth of operations of the bank. Generally, FDIC safety and soundness examinations for a bank of our size are completed on an annual basis through the execution of a quarterly focal review process. The FDIC and state bank regulatory agencies complete these examinations on a combined schedule.

The CFPB has primary examination and enforcement authority over institutions with assets of \$10 billion or more, including the Bank, with respect to various federal consumer protection laws, and we are subject to continued examination by the FDIC on certain consumer regulations. State authorities are also responsible for monitoring our compliance with all state consumer laws.

The frequency of consumer compliance and CRA examinations is linked to the size of the institution and its compliance and CRA ratings at its most recent examinations. However, the examination authority of the Federal Reserve and the FDIC allows them to examine supervised banks as frequently as deemed necessary based on the condition of the bank or as a result of certain triggering events.

Financial Privacy

Under the Gramm-Leach-Bliley Act of 1999, as amended, a financial institution may not disclose non-public personal information about a consumer to unaffiliated third-parties unless the institution satisfies various disclosure requirements and the consumer has not elected to opt out of the information sharing. The financial institution must provide its customers with a notice of its privacy policies and practices. The Federal Reserve, the FDIC, and other financial regulatory agencies issued regulations implementing notice requirements and restrictions on a financial institution's ability to disclose non-public personal information about consumers to unaffiliated third-parties.

In addition, privacy and data protection are areas of increasing state legislative focus, and several states have recently enacted consumer privacy laws that impose significant compliance obligations with respect to personal information. For example, the Company is subject to the CCPA and its implementing regulations. The CCPA gives consumers the right to request disclosure of information collected about them, and whether that information has been sold or shared with others, the right to request deletion of personal information (subject to certain exceptions), the right to opt out of the sale of the consumer's personal information, and the right not to be discriminated against for exercising these rights. The CCPA contains several exemptions, including an exemption applicable to information that is collected, processed, sold or disclosed pursuant to the Gramm-Leach-Bliley Act of 1999, as amended. In November 2020, voters in the CPRA, a ballot measure that amends and supplements the CCPA by, among other things, expanding certain rights relating to personal information and its use, collection, and disclosure by covered businesses. The key provisions of the CPRA will become effective on January 1, 2023. Similar laws may in the future be adopted by other states where the Company does business. The Company has made and will make operational adjustments in accordance with the requirements of the CCPA and other state privacy laws. Furthermore, privacy and data protection areas are expected to receive further attention at the federal level. The potential effects of state or federal privacy and data protection laws on the Company's business cannot be determined at this time, and will depend both on whether such laws are adopted by states in which the Company does business and/or at the federal level and the requirements imposed by any such laws.

Cybersecurity

The federal banking agencies have established certain expectations with respect to an institution's information security and cybersecurity programs, with an increasing focus on risk management, processes related to information technology and operational resiliency, and the use of third-parties in the provision of financial services. In October 2016, the federal banking agencies jointly issued an advance notice of proposed rulemaking on enhanced cybersecurity risk-management and resilience standards that would address five categories of cyber standards which include (i) cyber risk governance, (ii) cyber risk management, (iii) internal dependency management, (iv) external dependency management, and (v) incident response, cyber resilience, and situational awareness. As proposed, these enhanced standards would apply only to depository institutions and depository institution holding companies with total consolidated assets of \$50 billion or more; however, it is possible that if these enhanced standards are implemented, even if the \$50 billion threshold is increased, the Federal Reserve will consider them in connection with the examination and supervision of banks below the \$50 billion threshold. The federal banking agencies have not yet taken further action on these proposed standards. If we complete the pending merger with Umpqua, we will likely have greater than \$50 billion in total consolidated assets.

State regulators have also been increasingly active in implementing privacy and cybersecurity standards and regulations. Recently, several states have adopted regulations requiring certain financial institutions to implement cybersecurity programs and providing detailed requirements with respect to these programs, including data encryption requirements. Many states have also recently implemented or modified their data breach notification and data privacy requirements. We expect this trend of state-level activity in those areas to continue, and are continually monitoring developments in the states in which the Company operates.

In February 2018, the SEC published interpretive guidance to assist public companies in preparing disclosures about cybersecurity risks and incidents. These SEC guidelines, and any other regulatory guidance, are in addition to notification and disclosure requirements under state and federal banking law and regulations.

In November 2021, the U.S. federal bank regulatory agencies adopted a rule regarding notification requirements for banking organizations related to significant computer security incidents. Under the final rule, a bank holding company, such as the Company, and an FDIC-supervised insured depository institution, such as the Bank, are required to notify the Federal Reserve or FDIC, respectively, within 36 hours of incidents that have materially disrupted or degraded, or are reasonably likely to materially disrupt or degrade, the banking organization's ability to deliver services to a material portion of its customer base, jeopardize the viability of key operations of the banking organization, or impact the stability of the financial sector.

Corporate Governance and Accounting

SOX addresses, among other things, corporate governance, auditing and accounting, enhanced and timely disclosure of corporate information, and penalties for non-compliance. Generally, SOX (i) requires CEOs and CFOs to certify the accuracy of periodic reports filed with the SEC; (ii) imposes specific and enhanced corporate disclosure requirements; (iii) accelerates the time frame for reporting of insider transactions and periodic disclosures by public companies; (iv) requires companies to adopt and disclose information about corporate governance practices, including whether or not they have adopted a code of ethics for senior financial officers and whether the audit committee includes at least one "audit committee financial expert;" and (v) requires the SEC, based on certain enumerated factors, to regularly and systematically review corporate filings.

Deposit Insurance

The Bank's deposits are insured under the FDIA, up to the maximum applicable limits and are subject to deposit insurance assessments designed to tie what banks pay for deposit insurance to the risks they pose. Under the FDIC's assessment system for determining payments to the DIF, large IDIs with more than \$10 billion in assets are assessed under a complex "scorecard" methodology that seeks to capture both the probability that an individual large IDI will fail and the magnitude of the impact on the DIF if such a failure occurs. The assessment base of a large IDI is its total assets less tangible equity.

The Volcker Rule

The Dodd-Frank Act prohibits banks and their affiliates from engaging in proprietary trading and investing in and sponsoring hedge funds and private equity funds. The statutory provision is commonly called the "Volcker Rule." The Volcker Rule does not significantly impact the operations of the Company and the Bank, as we do not have any significant engagement in the businesses prohibited by the Volcker Rule.

Interchange Fees

The Company is subject to rules governing interchange fees establishing standards for assessing whether the interchange fees that may be charged with respect to certain electronic debit transactions are "reasonable and proportional" to the costs incurred by issuers for processing such transactions.

Interchange fees, or "swipe" fees, are charges that merchants pay to us and other card-issuing banks for processing electronic payment transactions. Under applicable rules, the maximum permissible interchange fee is equal to no more than 21 cents plus 5 basis points of the transaction value for many types of debit interchange transactions. The Federal Reserve also adopted a rule to allow a debit card issuer to recover one cent per transaction for fraud prevention purposes if the issuer complies with certain fraud-related requirements required by the Federal Reserve. The Federal Reserve also has rules governing routing and exclusivity that require issuers to offer two unaffiliated networks for routing transactions on each debit or prepaid product.

Incentive Compensation

The Dodd-Frank Act requires the federal bank regulators and the SEC to establish joint regulations or guidelines prohibiting incentive-based payment arrangements at specified regulated entities, including us and the Bank, having at least \$1 billion in total assets that encourage inappropriate risks by providing an executive officer, employee, director or principal stockholder with excessive compensation, fees, or benefits or that could lead to material financial loss to the entity. In addition, these regulators must establish regulations or guidelines requiring enhanced disclosure to regulators of incentive-based compensation arrangements.

In June 2010, the Federal Reserve and FDIC issued comprehensive final guidance on incentive compensation policies intended to ensure that the incentive compensation policies of banking organizations do not undermine the safety and soundness of such organizations by encouraging excessive risk-taking. The guidance, which covers all employees that have the ability to materially affect the risk profile of an organization, either individually or as part of a group, is based upon the key principles that a banking organization's incentive compensation arrangements should (i) provide incentives that appropriately balance risk and financial results in a manner that does not encourage employees to expose their organizations to imprudent risk, (ii) be compatible with effective internal controls and risk management and (iii) be supported by strong corporate governance, including active and effective oversight by the organization's board of directors.

During the second quarter of 2016, the U.S. financial regulators, including the Federal Reserve and the SEC, proposed revised rules on incentive-based payment arrangements at specified regulated entities having at least \$1 billion in total assets, but these proposed rules have not been finalized.

The Federal Reserve will review, as part of the regular, risk-focused examination process, the incentive compensation arrangements of banking organizations, such as us, that are not "large, complex banking organizations." These reviews will be tailored to each organization based on the scope and complexity of the organization's activities and the prevalence of incentive compensation arrangements. The findings of the supervisory initiatives will be included in reports of examination. Deficiencies will be incorporated into the organization's supervisory ratings, which can affect the organization's ability to make acquisitions and take other actions. Enforcement actions may be taken against a banking organization if its incentive compensation arrangements, or related risk management control or governance processes, pose a risk to the organization's safety and soundness and the organization is not taking prompt and effective measures to correct the deficiencies.

Proposed Legislation

Proposed legislation relating to the banking industry is introduced in almost every legislative session. Certain of such legislation could dramatically affect the regulation of the banking industry. We cannot predict if any such legislation will be adopted or if it is adopted how it would affect the business of Columbia Bank or the Company. Recent history has demonstrated that new legislation or changes to existing laws or regulations usually results in a greater compliance burden and therefore generally increases the cost of doing business.

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, but 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, influence the 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.

ITEM 1A. RISK FACTORS

The following is a discussion of what we currently believe are the most significant risks and uncertainties that may affect our business, financial condition and future results.

Risks Relating to our Operations

Our business, financial condition, liquidity and results of operations have been, and may in the future be, adversely affected by the COVID-19 pandemic.

The COVID-19 pandemic has created economic and financial disruptions that have adversely affected, and may in the future adversely affect, our business, financial condition, liquidity and results of operations. The extent to which the COVID-19 pandemic will negatively affect our business, financial condition, liquidity and results of operations will depend on future developments, including the emergence of new variances of COVID-19 and the widespread availability, use and effectiveness of vaccines over the long term and against new variants, which are highly uncertain and cannot be predicted.

While financial markets rebounded from the significant declines that occurred earlier in the pandemic and global economic conditions showed signs of improvement during the second half of 2020 and in 2021, many of the circumstances that arose or became more pronounced after the onset of the COVID-19 pandemic persisted through the beginning of 2022, including (i) muted levels of business activity across many sectors of the economy, weakened consumer confidence and disruptions to the global supply chain; (ii) elevated levels of market volatility; (iii) the federal funds rate and yields on U.S. Treasury securities near zero; (iv) the exacerbation of recent inflationary trends; (v) heightened credit risk with regard to industries that have been most severely impacted by the pandemic; and (vi) higher cyber security, information security and operational risks as a result of work-from-home arrangements. Depending on the duration and severity of the COVID-19 pandemic going forward, as well as the effects of the pandemic on consumer and corporate confidence, the conditions noted above could continue for an extended period and other adverse developments may occur or reoccur.

Governmental authorities worldwide have taken increased measures to stabilize the markets and support economic growth. The continued success of these measures is unknown and they may not be sufficient to address future market dislocations or avert severe and prolonged reductions in economic activity, and certain authorities have indicated an intention, or are under pressure to, wind down certain of these measures to counter inflationary trends. We also face an increased risk of client disputes, litigation and governmental and regulatory scrutiny as a result of the effects of the COVID-19 pandemic on economic and market conditions.

The length of the pandemic and the efficacy of the extraordinary measures that have been put in place to address it are unknown. For example, the omicron variant of COVID-19 has led to a spike in COVID-19 cases across the United States, has led to travel and other disruptions, and certain governmental authorities and other third parties have re-imposed restrictions in order to respond to the rise in cases attributable to the omicron variant of COVID-19. Until the pandemic subsides, we may experience draws on lines of credit, reduced revenues in our wealth management businesses and increased client defaults, including defaults in unsecured loans. Even after the pandemic subsides, the U.S. economy, as well as most other major economies, may continue to experience a recession, and we anticipate our businesses would be materially and adversely affected by a prolonged recession in the U.S. and other major markets. Further, the COVID-19 pandemic may also have the effect of heightening many of the other risks described in this “Risk Factors” section or in the “Risk Factors” section of any subsequent Quarterly Report on Form 10-Q.

A failure in or breach of our operational or security systems, or those of our third party service providers, including as a result of cyber-attacks, could disrupt our business, result in unintentional disclosure or misuse of confidential or proprietary information, damage our reputation, increase our costs and cause losses.

As a financial institution, our operations rely heavily on the secure processing, storage and transmission of confidential and other information on our computer systems and networks. Any failure, interruption or breach in security or operational integrity of these systems could result in failures or disruptions in our online banking system, customer relationship management, general ledger, deposit and loan servicing and other systems. The security and integrity of our systems could be threatened by a variety of interruptions or information security breaches, including those caused by computer hacking, cyber-attacks, electronic fraudulent activity or attempted theft of financial assets. We may not be able to anticipate, detect, or implement effective preventative measures against all threats, particularly because the techniques used by cyber criminals change frequently, often are not recognized until launched and can be initiated from a variety of sources. We cannot assure you that we will be able to adequately address all such failures, interruptions or security breaches that may have a material adverse impact on our business, financial condition, results of operations and prospects. While we have certain protective policies and

procedures in place, the nature and sophistication of the threats continue to evolve. We may be required to expend significant additional resources in the future to modify and enhance our protective measures.

Due to the complexity and interconnectedness of information technology systems, the process of enhancing our systems can itself create a risk of systems disruptions and security issues. Additionally, we face the risk of operational disruption, failure, termination or capacity constraints of any of the third parties that facilitate our business activities, including exchanges, clearing agents, clearing houses or other financial intermediaries. Such parties can also be the source of an attack on, or breach of, our operational systems. Failures, interruptions or security breaches in our information systems could damage our reputation, result in a loss of customer business, result in a violation of privacy or other laws, or expose us to civil litigation, regulatory fines or losses not covered by insurance, all of which could have a material adverse impact on our business, financial condition, results of operations and prospects.

The confidential information of our customers (including user names and passwords) can also be jeopardized from the compromise of customers' personal electronic devices or as a result of a data security breach at an unrelated company. Losses due to unauthorized account activity could harm our reputation and may have a material adverse effect on our business, financial condition, results of operations and prospects.

Acquisitions and the integration of acquired businesses subject us to various risks and may not result in all of the benefits anticipated, future acquisitions may be dilutive to current shareholders and future acquisitions may be delayed, impeded or prohibited due to regulatory issues.

We have in the past sought, and expect in the future to continue to seek, to grow our business by acquiring other businesses. As of the date of this report, our proposed combination with Umpqua is pending consummation. Risks specifically associated with this pending merger can be found below under the heading "*Risks Relating to our Pending Merger with Umpqua*." Our acquisitions, including our recently completed acquisition of Bank of Commerce, may not have the anticipated positive results, including results relating to: correctly assessing the asset quality of the assets being acquired; the total cost of integration including management attention and resources; the time required to complete the integration successfully; the amount of longer-term cost savings; being able to profitably deploy funds acquired in an acquisition; or the overall performance of the combined entity.

In addition, unexpected contingent liabilities can arise from the businesses we acquire. Integration of an acquired business can be complex and costly, sometimes including combining relevant accounting and data processing systems, financial reporting and management and internal controls, as well as managing relevant relationships with employees, clients, suppliers and other business partners. Integration efforts could divert management attention and resources, which could adversely affect these systems, processes or controls and our operations or results.

Acquisitions may also result in business disruptions that cause us to lose customers or cause customers to remove their accounts from us and move their business to competing financial institutions. It is possible that the integration process related to acquisitions could result in the disruption of our ongoing businesses or inconsistencies in standards, controls, procedures and policies that could adversely affect our ability to maintain relationships with clients, customers, depositors and employees. The loss of key employees in connection with an acquisition could adversely affect our ability to successfully conduct our business.

We may engage in additional future acquisitions involving the issuance of additional common stock and/or cash. Any such acquisitions and related issuances of stock may have a dilutive effect on EPS, book value per share or the percentage ownership of current shareholders. The use of cash as consideration in any such acquisitions could impact our capital position and may require us to raise additional capital.

Furthermore, notwithstanding our prior acquisitions, we cannot provide any assurance as to the extent to which we can continue to grow through acquisitions as this will depend on the availability of prospective target opportunities at valuations we find attractive and other factors. Among other things, acquisitions by financial institutions are subject to approval by a variety of federal and state regulatory agencies. Regulatory approvals could be delayed, impeded, restrictively conditioned or denied due to existing or new regulatory issues we have, or may have, with regulatory agencies. In addition, the Northwest is experiencing intensified consolidation and we face significant competition from numerous other financial services institutions for attractive acquisition candidates, and many of these competitors have greater financial resources than we do.

Risks Relating to our Pending Merger with Umpqua

Regulatory approvals may not be received, may take longer than expected, or may impose conditions that are not presently anticipated or that could have an adverse effect on the combined company following the proposed merger with Umpqua.

Before the merger with Umpqua and the subsequent merger of Columbia State Bank and Umpqua Bank (the “bank merger”) may be completed, various approvals, consents and non-objections must be obtained from the FRB and the FDIC and other regulatory authorities in the United States. In determining whether to grant these approvals, such regulatory authorities consider a variety of factors, including the regulatory standing of each party. These approvals could be delayed or not obtained at all, including due to an adverse development in either party’s regulatory standing or in any other factors considered by regulators when granting such approvals; governmental, political or community group inquiries, investigations or opposition; or changes in legislation or the political environment generally.

The approvals that are granted may impose terms and conditions, limitations, obligations or costs, or place restrictions on the conduct of the combined company’s business or require changes to the terms of the transactions contemplated by the merger agreement. There can be no assurance that regulators will not impose any such conditions, limitations, obligations or restrictions and that such conditions, limitations, obligations or restrictions will not have the effect of delaying the completion of any of the transactions contemplated by the merger agreement, imposing additional material costs on or materially limiting the revenues of the combined company following the merger or otherwise reducing the anticipated benefits of the merger if the merger were consummated successfully within the expected timeframe. In addition, there can be no assurance that any such conditions, terms, obligations or restrictions will not result in the delay or abandonment of the merger. Additionally, the completion of the merger is conditioned on the absence of certain orders, injunctions or decrees by any court or regulatory agency of competent jurisdiction that would prohibit or make illegal the completion of any of the transactions contemplated by the merger agreement.

In addition, despite the parties’ commitments to using their reasonable best efforts to comply with conditions imposed by regulators, under the terms of the merger agreement, neither Columbia nor Umpqua, nor any of their respective subsidiaries, is permitted (without the written consent of the other party), to take any action, or commit to take any action, or agree to any condition or restriction, in connection with obtaining the required permits, consents, approvals and authorizations of governmental entities that would reasonably be expected to have a material adverse effect on the combined company and its subsidiaries, taken as a whole, after giving effect to the merger and the bank merger.

Failure to complete the proposed merger with Umpqua could negatively impact Columbia.

If the merger is not completed for any reason, including as a result of Columbia shareholders or Umpqua shareholders failing to approve certain matters in connection with the merger at each company’s respective special meeting, there may be various adverse consequences and Columbia may experience negative reactions from the financial markets and from its customers and employees. For example, Columbia’s business may have been impacted adversely by the failure to pursue other beneficial opportunities due to the focus of management on the merger, without realizing any of the anticipated benefits of completing the merger. Additionally, if the merger agreement is terminated, the market price of Columbia’s common stock could decline to the extent that current market prices reflect a market assumption that the merger will be beneficial and will be completed. Columbia also could be subject to litigation related to any failure to complete the merger or to proceedings commenced against Columbia to perform its obligations under the merger agreement. If the merger agreement is terminated under certain circumstances, Columbia may be required to pay a termination fee of \$145 million to Umpqua.

Additionally, Columbia has incurred and will incur substantial expenses in connection with the negotiation and completion of the transactions contemplated by the merger agreement, as well as the costs and expenses of preparing, filing, printing and mailing of a joint proxy statement/prospectus in connection with the merger, and all filing and other fees paid in connection with the merger. If the merger is not completed, Columbia would have to pay these expenses without realizing the expected benefits of the merger.

Combining Columbia and Umpqua may be more difficult, costly or time-consuming than expected, and Columbia may fail to realize the anticipated benefits of the merger.

The success of the merger will depend, in part, on the ability to realize the anticipated cost savings from combining the businesses of Columbia and Umpqua. To realize the anticipated benefits and cost savings from the merger, Columbia and Umpqua must successfully integrate and combine their businesses in a manner that permits those cost savings to be realized without adversely affecting current revenues and future growth. If Columbia and Umpqua are not able to successfully achieve these objectives, the anticipated benefits of the merger may not be realized fully or at all or may take longer to realize than expected. In addition, the actual cost savings of the merger could be less than anticipated, and integration may result in additional and unforeseen expenses.

An inability to realize the full extent of the anticipated benefits of the merger and the other transactions contemplated by the merger agreement, as well as any delays encountered in the integration process, could have an adverse effect upon the revenues, levels of expenses and operating results of the combined company following the completion of the merger, which may adversely affect the value of the common stock of the combined company following the completion of the merger.

Columbia and Umpqua have operated and, until the completion of the merger, must continue to operate, independently. It is possible that the integration process could result in the loss of key employees, the disruption of each company's ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect the companies' ability to maintain relationships with clients, customers, depositors and employees or to achieve the anticipated benefits and cost savings of the merger. Integration efforts between the companies may also divert management attention and resources. These integration matters could have an adverse effect on Columbia during this transition period and for an undetermined period after completion of the merger on the combined company.

Furthermore, the board of directors and executive leadership of the combined company will consist of former directors and executive officers from each of Columbia and Umpqua. Combining the boards of directors and management teams of each company into a single board and a single management team could require the reconciliation of differing priorities and philosophies.

The combined company may be unable to retain Columbia and/or Umpqua personnel successfully after the merger is completed.

The success of the merger will depend in part on the combined company's ability to retain the talent and dedication of key employees currently employed by Columbia and Umpqua. It is possible that these employees may decide not to remain with Columbia or Umpqua, as applicable, while the merger is pending or with the combined company after the merger is consummated. If Columbia and Umpqua are unable to retain key employees, including management, who are critical to the successful integration and future operations of the companies, Columbia and Umpqua could face disruptions in their operations, loss of existing customers, loss of key information, expertise or know-how and unanticipated additional recruitment costs. In addition, following the merger, if key employees terminate their employment, the combined company's business activities may be adversely affected, and management's attention may be diverted from successfully hiring suitable replacements, all of which may cause the combined company's business to suffer. Columbia and Umpqua also may not be able to locate or retain suitable replacements for any key employees who leave either company.

Columbia will be subject to business uncertainties and contractual restrictions while the merger with Umpqua is pending.

Uncertainty about the effect of the merger on employees and customers may have an adverse effect on Columbia. These uncertainties may impair Columbia's ability to attract, retain and motivate key personnel until the merger is completed, and could cause customers and others that deal with Columbia to seek to change existing business relationships with Columbia. In addition, subject to certain exceptions, Columbia has agreed to operate its business in the ordinary course in all material respects and to refrain from taking certain actions that may adversely affect its ability to consummate the transactions contemplated by the merger agreement on a timely basis without the consent of Umpqua. These restrictions may prevent Columbia from pursuing attractive business opportunities that may arise prior to the completion of the merger.

Columbia has incurred and is expected to incur substantial costs related to the merger and integration.

Columbia has incurred and expects to incur a number of non-recurring costs associated with the merger. These costs include legal, financial advisory, accounting, consulting and other advisory fees, retention, severance and employee benefit-related costs, public company filing fees and other regulatory fees, financial printing and other printing costs, closing, integration and other related costs. Some of these costs are payable by Columbia regardless of whether or not the merger is completed.

Shareholder litigation related to the merger with Umpqua could prevent or delay the completion of the merger, result in the payment of damages or otherwise negatively impact the business and operations of Columbia.

Shareholders have brought claims in connection with the proposed merger and, among other remedies, seek damages and an injunction preventing the merger from closing. If any plaintiff were successful in obtaining an injunction prohibiting Columbia or Umpqua from completing the merger or any other transactions contemplated by the merger agreement, then such injunction may delay or prevent the effectiveness of the merger and could result in costs to Columbia, including costs in connection with the defense or settlement of any shareholder lawsuits filed in connection with the merger. Further, such lawsuits and the defense or settlement of any such lawsuits may have an adverse effect on the financial condition and results of operations of Columbia.

The merger agreement between the Company and Umpqua may be terminated in accordance with its terms and the merger may not be completed.

The merger agreement is subject to a number of conditions which must be fulfilled in order to complete the merger. Those conditions include, among other things: (i) approval by each of the Columbia shareholders and the Umpqua shareholders of certain matters relating to the merger at each company's respective special meeting (which approvals were obtained on January 26, 2022); (ii) the receipt of required regulatory approvals, including the approval of the FRB and the FDIC; and (iii) the absence of any order, injunction, decree or other legal restraint preventing the completion of the merger, the bank merger or any of the other transactions contemplated by the merger agreement or making the completion of the merger, the bank merger or any of the other transactions contemplated by the merger agreement illegal. Each party's obligation to complete the merger is also subject to certain additional customary conditions, including (a) subject to applicable materiality standards, the accuracy of the representations and warranties of the other party, (b) the performance in all material respects by the other party of its obligations under the merger agreement and (c) the receipt by each party of an opinion from its counsel to the effect that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986.

These conditions to the closing may not be fulfilled in a timely manner or at all, and, accordingly, the merger may not be completed. In addition, the parties can mutually decide to terminate the merger agreement at any time, before or after the requisite shareholder approvals, or Umpqua or Columbia may elect to terminate the merger agreement in certain other circumstances.

Our assumptions regarding the fair value of assets acquired could be inaccurate, which could materially and adversely affect our business, financial condition, results of operations, and future prospects.

Management makes various assumptions and judgments about the collectability of acquired loans, including the creditworthiness of borrowers and the value of the real estate and other assets serving as collateral for the repayment of secured loans. If our assumptions are incorrect, significant earnings volatility can occur and credit loss provisions may be needed to respond to different economic conditions or adverse developments in the acquired loan portfolio. Any increase in future loan losses could have a material adverse impact on our business, financial condition, results of operations and prospects.

If the goodwill we have recorded in connection with acquisitions becomes impaired, it could have a material adverse impact on our earnings and shareholders' equity.

Accounting standards require that we account for acquisitions using the acquisition method of accounting. Under acquisition accounting, if the purchase price of an acquired company exceeds the fair value of its net assets, the excess is carried on the acquirer's balance sheet as goodwill. In accordance with GAAP, our goodwill is evaluated for impairment on an annual basis or more frequently if events or circumstances indicate that a potential impairment exists. Such evaluation may be based on a variety of factors, including the quoted price of our common stock, market prices of common stock of other banking organizations, common stock trading multiples, DCF analysis and data from comparable acquisitions. Future evaluations of goodwill may result in impairment and ensuing write-downs, which could have a material adverse impact on our earnings and shareholders' equity.

We may not be able to attract or retain key employees.

Our success depends in significant part on the skills of our management team and our ability to retain, recruit and motivate key officers and employees. We expect our future success to be driven in large part by the relationships maintained with our clients by our executives and other key employees. Leadership changes will occur from time to time, and we cannot predict whether significant resignations or other departures will occur or whether we will be able to recruit additional qualified personnel. Competition for senior executives and skilled personnel in the financial services and banking industry is intense, which means the cost of hiring, incentivizing and retaining skilled personnel may continue to increase. We need to continue to attract and retain key personnel and to recruit qualified individuals to succeed existing key personnel to ensure the continued growth and successful operation of our business. The unexpected loss of any such employees, or the inability to recruit and retain qualified personnel in the future, could have a material adverse impact on our business, financial condition, results of operations and prospects. In addition, the scope and content of U.S. banking regulators' regulations and policies on incentive compensation, as well as changes to these regulations and policies, could adversely affect our ability to hire, retain and motivate our key employees.

Our ability to sustain or improve upon existing performance is dependent upon our ability to respond to technological change, and we may have fewer resources than some of our competitors to continue to invest in technological improvements.

The financial services industry is undergoing rapid technological changes with frequent introductions of new technology-driven products and services. The effective use of technology increases efficiency and enables financial institutions to better serve customers and to reduce costs. Many of our competitors have substantially greater resources to invest in technological improvements than we do. Our future success will depend, in part, upon our ability to address the needs of our clients by using technology to provide products and services that will satisfy client demands for convenience, as well as to create additional efficiencies in our operations. We may not be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to our customers. In addition, the implementation of technological changes and upgrades to maintain current systems and integrate new ones may also cause service interruptions, transaction processing errors and system conversion delays and may cause us to fail to comply with applicable laws. There can be no assurance that we will be able to successfully manage the risks associated with our increased dependency on technology.

Significant legal or regulatory actions could subject us to substantial uninsured liabilities and reputational harm and have a material adverse effect on our business and results of operations.

We are from time to time subject to claims and proceedings related to our operations. Claims and legal actions, including supervisory or enforcement actions by our regulators, or criminal proceedings by prosecutorial authorities, could involve large monetary claims, including civil money penalties or fines imposed by government authorities and significant defense costs. To mitigate the cost of some of these claims, we maintain insurance coverage in amounts and with deductibles that we believe are appropriate for our operations. However, our insurance coverage does not cover any civil money penalties or fines imposed by government authorities and may not cover all other claims that might be brought against us or continue to be available to us at a reasonable cost. As a result, we may be exposed to substantial uninsured liabilities, which could adversely affect our business, prospects, results of operations and financial condition. Substantial legal liability or significant regulatory action against us could cause significant reputational harm to us and/or could have a material adverse impact on our business, financial condition, results of operations and prospects. Because we primarily serve individuals and businesses located in the Northwest, any negative impact resulting from reputational harm, including any impact on our ability to attract and retain customers and employees, likely would be greater than if our business were more geographically diverse.

We are subject to a variety of operational risks, including reputational risk, legal risk and compliance risk, and the risk of fraud or theft by employees or outsiders, which may adversely affect our business and results of operations.

We are exposed to many types of operational risks, including reputational risk, legal and compliance risk, the risk of fraud or theft by employees or outsiders, and unauthorized transactions by employees or operational errors, including clerical or record-keeping errors or those resulting from faulty or disabled computer or telecommunications systems. These risks have increased in light of work-from-home arrangements implemented in response to the COVID-19 pandemic.

Our reputation and businesses may be adversely affected by negative publicity or information regarding our businesses and personnel, whether or not accurate or true, that may be posted on social media or other Internet forums or published by news organizations. The speed and pervasiveness with which information can be disseminated through these channels, in particular social media, may magnify risks relating to negative publicity.

If personal, non-public, confidential or proprietary information of customers in our possession were to be mishandled or misused, we could suffer significant regulatory consequences, reputational damage and financial loss. Such mishandling or misuse could include, for example, if such information were erroneously provided to parties who are not permitted to have the information, either by fault of our systems, employees, or counterparties, or where such information is intercepted or otherwise inappropriately taken by third parties.

Because the nature of the financial services business involves a high volume of transactions, certain errors may be repeated or compounded before they are discovered and successfully rectified. Our necessary dependence upon automated systems to record and process transactions and our large transaction volume may further increase the risk that technical flaws or employee tampering or manipulation of those systems will result in losses that are difficult to detect. We are also subject to disruptions of our operating systems arising from events that are wholly or partially beyond our control (for example, computer viruses or electrical or telecommunications outages, natural disasters, disease pandemics or other damage to property or physical assets) that can give rise to disruption of service to customers and to financial loss or liability. We are further exposed to the risk that our external vendors may be unable to fulfill their contractual obligations (or will be subject to the same risk of fraud or operational errors by their respective employees as we are) and to the risk that we (or our vendors') business continuity and data security systems prove to be inadequate. The occurrence of any of these risks could result in a diminished ability of us to operate our business (for example, by requiring us to expend significant resources to correct the defect), as well as potential liability to clients, reputational damage and regulatory intervention, which could have a material adverse impact on our business, financial condition, results of operations and prospects.

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

We rely on third parties to provide services to us and our clients or otherwise act as partners in our business activities in a variety of ways, including through the provision of key components of our business infrastructure. We expect these third parties to perform services for us, fulfill their obligations to us, accurately inform us of relevant information, and conduct their activities in a manner that reflects positively on our brand and business. Although we manage exposure to such third-party risk through a variety of means, including the performance of due diligence and ongoing monitoring of vendor performance, there can be no assurance these efforts will be effective. Any failure of our business partners, service providers or other third parties to meet their commitments to us or to perform in accordance with our expectations could result in operational disruptions, increased expenditures, regulatory actions in which we may be held responsible for the actions of third parties, damage to our reputation and the loss of clients, which in turn could harm our business and operations, strategic growth objectives and financial performance. Because of the COVID-19 pandemic, many of our counterparties and third-party service providers have been, and may further be, affected by "stay-at-home" orders, market volatility and other factors that increase their risk of business disruption or that may otherwise affect their ability to perform under the terms of any agreements with us or provide essential services.

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

Failure to maintain effective internal control over financial reporting or disclosure controls and procedures may adversely affect our business and results of operations.

Management regularly reviews and updates our internal control over financial reporting, disclosure controls and procedures, and corporate governance policies and procedures. We maintain controls and procedures to mitigate risks such as processing system failures or errors and customer or employee fraud, and we maintain insurance coverage for certain of these risks. Any system of controls and procedures, however well designed and operated, is based in part on certain assumptions and provides only reasonable, not absolute, assurances that the objectives of the system are met. Events could occur which are not prevented or detected by our internal controls, are not insured against, or are in excess of our insurance limits. Any failure or circumvention of our controls and procedures, or failure to comply with regulations related to controls and procedures, could have an adverse effect on our business, financial condition, results of operations and prospects.

Interest Rate and Credit Risks

Economic conditions in the market areas we serve may adversely impact our earnings and could increase our credit risk associated with our loan portfolio, the value of our investment portfolio and the availability of deposits.

Substantially all of our loan and deposit customers are businesses and individuals in Washington, Oregon, Idaho and California, and soft economies in these market areas could have a material adverse effect on our business, financial condition, results of operations and prospects. A deterioration in the market areas we serve could result in the following consequences, any of which would have an adverse impact, which could be material, on our business, financial condition, results of operations and prospects:

- loan delinquencies may increase;
- problem assets and foreclosures may increase;
- collateral for loans made may decline in value, in turn reducing customers' borrowing power, reducing the value of assets and collateral associated with existing loans;
- certain securities within our investment portfolio could require an allowance for credit losses, requiring a write-down through earnings to fair value, thereby reducing equity;
- low-cost or noninterest-bearing deposits may decrease; and
- demand for our loan and other products and services may decrease.

Concentrations within our loan portfolio could result in increased credit risk in a challenging economy.

While our loan portfolio is diversified across business sectors, it is concentrated in commercial real estate and commercial business loans. These types of loans generally are viewed as having more risk of default than residential real estate loans or certain other types of loans or investments. In fact, the FDIC has issued pronouncements alerting banks of its concern about heavy loan concentrations. Because our loan portfolio contains commercial real estate and commercial business loans with relatively large balances, the deterioration of one or a few of these loans may cause a significant increase in our nonperforming loans. An increase in nonperforming loans could result in a loss of earnings from these loans, an increase in the provision for loan losses, or an increase in loan charge-offs, any of which would have an adverse impact, which could be material, on our business, financial condition, results of operations and prospects.

A large percentage of our loan portfolio is secured by real estate, in particular commercial real estate. Deterioration in the real estate market or other segments of our loan portfolio would lead to additional losses.

As of December 31, 2021, 63% of our total gross loans were secured by real estate. Any renewed downturn in the economies or real estate values in the markets we serve could have a material adverse effect on both borrowers' ability to repay their loans and the value of the real property securing such loans. Our ability to recover on defaulted loans would then be diminished, and we would be more likely to suffer losses on defaulted loans, any or all of which would have an adverse impact, which could be material, on our business, financial condition, results of operations and prospects.

Our allowance may not be adequate to cover future loan losses, which could adversely affect earnings.

We maintain an allowance for credit losses (for periods prior to January 1, 2020, referred to as the allowance for loan and lease losses) in an amount that we believe is adequate to provide for losses inherent in our loan portfolio. While we strive to carefully monitor credit quality and to identify loans that may become nonperforming, at any time there are loans in the portfolio that could result in losses, but that have not been identified as nonperforming or potential problem loans. We cannot be sure that we will be able to identify deteriorating loans before they become nonperforming assets, or that we will be able to limit losses on those loans that have been identified. Additionally, the process for determining the allowance requires different, subjective and complex judgments about the future impact from current economic conditions that might impair the ability of borrowers to repay their loans. As a result, future significant increases to the allowance may be necessary. Future increases to the allowance may be required based on changes in the composition of the loans comprising the portfolio, deteriorating values in underlying collateral (most of which consists of real estate) and changes in the financial condition of borrowers, such as may result from changes in economic conditions, or as a result of actual future events differing from assumptions used by management in determining the allowance.

We adopted ASU No. 2016-13, *Financial Instruments – Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments* effective January 1, 2020. This standard requires financial institutions to determine periodic estimates of lifetime expected credit losses on financial instruments and other commitments to extend credit. This standard changed the prior incurred loss model for recognizing credit losses, and adoption of the new standard required us to increase our allowance, and greatly increased the types of data we need to collect and review to determine the appropriate level of the allowance.

Additionally, banking regulators, as an integral part of their supervisory function, periodically review our allowance. These regulatory agencies may require us to increase the allowance. Any increase in the allowance would have an adverse effect, which could be material, on our financial condition and results of operations.

Nonperforming assets take significant time to resolve and could adversely affect our results of operations and financial condition.

Our nonperforming assets adversely affect our net income in various ways. We do not record interest income on nonaccrual loans, thereby adversely affecting our income. Moreover, nonaccrual loans increase our loan administration costs. Assets acquired by foreclosure or similar proceedings are recorded at fair value less estimated costs to sell. The valuation of these foreclosed assets is periodically updated and resulting losses, if any, are charged to earnings in the period in which they are identified. An increase in the level of nonperforming assets also increases our risk profile and may impact the capital levels our regulators believe is appropriate in light of such risks. We utilize various techniques such as loan sales, workouts, and restructurings to manage our problem assets. Decreases in the value of these problem assets, the underlying collateral, or in the borrowers' performance or financial condition would have an adverse impact, which could be material, on our business, financial condition, results of operations and prospects. In addition, the resolution of nonperforming assets requires significant commitments of time from management and staff, which can be detrimental to performance of their other responsibilities. We may experience increases in nonperforming loans in the future.

Fluctuating interest rates could adversely affect our business.

Significant increases in market interest rates on loans, or the perception that an increase may occur, could adversely affect both our ability to originate new loans and our ability to grow. Conversely, decreases in interest rates could result in an acceleration of loan prepayments. An increase in market interest rates could also adversely affect the ability of our floating-rate borrowers to meet their higher payment obligations. If this occurred, it could cause an increase in nonperforming assets and charge offs, which could adversely affect our business.

Further, our profitability is dependent to a large extent upon net interest income, which is the difference (or "spread") between the interest earned on loans, securities and other interest-earning assets and the interest paid on deposits, borrowings, and other interest-bearing liabilities. Because of the differences in maturities and repricing characteristics of our interest-earning assets and interest-bearing liabilities, changes in interest rates do not produce equivalent changes in interest income earned on interest-earning assets and interest paid on interest-bearing liabilities. Accordingly, fluctuations in interest rates could adversely affect our interest rate spread, and, in turn, our profitability. Although it is expected that the Federal Reserve will increase the target federal funds rate in 2022 to combat recent inflationary trends, if interest rates do not rise, or if the Federal Reserve were to lower the target federal funds rate to below 0%, these low rates could continue to constrain our interest rate spread and may adversely affect our business forecasts. On the other hand, increases in interest rates, to combat inflation or otherwise, may result in a change in the mix of noninterest and interest-bearing accounts. We are unable to predict changes in interest rates, which are affected by factors beyond our control, including inflation, deflation, recession, unemployment, money supply and other changes in financial markets.

Interest rates on certain of our outstanding financial instruments are subject to change based on regulatory developments, which could adversely affect our revenue, expenses and the value of those financial instruments.

LIBOR and certain other "benchmarks" are the subject of recent national, international and other regulatory guidance and proposals for reform. These reforms may cause such benchmarks to perform differently than in the past or have other consequences which cannot be predicted. On July 27, 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, publicly announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021. The United Kingdom's Financial Conduct Authority and the benchmark administrator for the U.S. Dollar LIBOR have announced that the publication of the most commonly used U.S. Dollar LIBOR settings will cease to be provided or cease to be representative after June 30, 2023. The U.S. federal banking agencies had also issued guidance strongly encouraging banking organizations to cease using the U.S. Dollar LIBOR as a reference rate in "new" contracts as soon as practicable and in any event by December 31, 2021. We may be adversely impacted by the changes involving LIBOR and other benchmark rates as a result of our business activities and our underlying operations, and interest rates on our loans, deposits, derivatives and other financial instruments tied to LIBOR rates, as well as the revenue and expenses associated with those financial instruments, may be adversely affected.

Regulators, industry groups and certain committees (e.g., the Alternative Reference Rates Committee) have, among other things, published recommended fallback language for LIBOR-linked financial instruments, identified recommended alternatives for certain LIBOR rates (e.g., the SOFR as the recommended alternative to U.S. Dollar LIBOR), and proposed implementations of the recommended alternatives in floating rate instruments. However, the introduction of, and adoption of, successor rates had been slow until late 2021. There continues to be substantial uncertainty as to the ultimate effects of LIBOR transition, including with respect to the acceptance and use of SOFR or other alternative benchmark rates. The characteristics of these new rates are not identical to the benchmarks they seek to replace, will not produce the exact economic equivalent as those benchmarks, and may perform differently in a variety of market conditions compared to those benchmarks. For example, during the COVID-19 pandemic period, there has been more volatility in relation to SOFR as compared to LIBOR. The SOFR markets have not yet developed into robust markets, which may present continuing risks as the June 30, 2023 cessation date approaches. At this time, it is not possible to predict whether these recommendations and proposals will be broadly accepted, whether they will continue to evolve, and what the effect of their implementation may be on the markets for floating-rate financial instruments.

Our business depends on our ability to successfully manage credit risk.

The operation of our business requires us to manage credit risk. As a lender, we are exposed to the risk that our borrowers will be unable to repay their loans according to their terms, and that the collateral securing repayment of their loans, if any, may not be sufficient to ensure repayment. In addition, there are risks inherent in making any loan, including risks with respect to the period of time over which the loan may be repaid, risks relating to proper loan underwriting, risks resulting from changes in economic and industry conditions and risks inherent in dealing with individual borrowers. In order to successfully manage credit risk, we must, among other things, maintain disciplined and prudent underwriting standards and ensure that our bankers follow those standards. The weakening of these standards for any reason, such as an attempt to attract higher yielding loans, a lack of discipline or diligence by our employees in underwriting and monitoring loans, the inability of our employees to adequately adapt policies and procedures to changes in economic or any other conditions affecting borrowers and the quality of our loan portfolio, may result in loan defaults, foreclosures and additional charge-offs and may necessitate that we increase our ACL, each of which could adversely affect our net income. As a result, our inability to successfully manage credit risk could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be required, in the future, to recognize a credit loss with respect to investment securities.

Our securities portfolio currently includes securities with unrecognized losses. As of December 31, 2021, gross unrealized losses in our securities portfolio were \$57.9 million. We may continue to observe declines in the fair market value of these securities. Securities issued by certain states and municipalities may come under scrutiny due to concerns about credit quality. Although management believes the credit quality of the Company's state and municipal securities portfolio to be good, there can be no assurance that the credit quality of these securities will not decline in the future. We evaluate the securities portfolio for any securities with an associated credit loss each reporting period, as required by GAAP in the United States. There can be no assurance, however, that future evaluations of the securities portfolio will not require us to recognize credit losses with respect to these and other holdings. For example, it is possible that government-sponsored programs to allow mortgages to be refinanced to lower rates could materially adversely impact the yield on our portfolio of mortgage-backed securities, since a significant portion of our investment portfolio is composed of such securities.

We are exposed to the risk of environmental liabilities in connection with real properties acquired.

During the ordinary course of business, we foreclose on and take title to properties securing certain loans. In doing so, there is a risk that hazardous or toxic substances could be found on these properties. If previously unknown or undisclosed hazardous or toxic substances are discovered, we may be liable for remediation costs, as well as for personal injury and property damage. Environmental laws may require us to incur substantial expenses which may materially reduce the affected property's value or limit our ability to use or sell the affected property. In addition, future laws or more stringent interpretations or enforcement policies with respect to existing laws may increase our exposure to environmental liability. Although we have policies and procedures to perform an environmental review at the time of underwriting a loan secured by real property, and also before initiating any foreclosure action on real property, these reviews may not be sufficient to detect all potential environmental hazards. The remediation costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on our financial condition and results of operations.

Funding and Liquidity Risks

Our management of capital could adversely affect profitability measures and the market price of our common stock and could dilute the holders of our outstanding common stock.

Our capital ratios are significantly higher than regulatory minimums. We may lower our capital ratios through selective acquisitions that meet our disciplined criteria, share repurchase plans, organic loan growth, investment in securities, or a combination of all four. We continually evaluate opportunities to expand our business through strategic acquisitions. There can be no assurance that we will be able to negotiate future acquisitions on terms acceptable to us.

Conversely, there may be circumstances under which it would be prudent to consider alternatives for raising capital to take advantage of significant acquisition opportunities or in response to changing economic conditions. In addition, we may need to raise additional capital in the future to have sufficient capital resources and liquidity to meet our commitments and fund our business needs and future growth, particularly if the quality of our assets or earnings were to deteriorate significantly. We may not be able to raise additional capital when needed on terms acceptable to us or at all. Our ability to raise additional capital, if needed, will depend on, among other things, conditions in the capital markets at the time, which are outside our control, and our financial performance. Further, if we need to raise capital in the future, we may have to do so when many other financial institutions are also seeking to raise capital and would then have to compete with those institutions for investors. An inability to raise additional capital on acceptable terms when needed could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, any capital raising alternatives could dilute the holders of our outstanding common stock and may adversely affect the market price of our common stock.

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

We may need or want to raise additional capital in the future to provide us with sufficient capital resources and liquidity to meet our commitments and business needs, particularly if our asset quality or earnings were to deteriorate significantly. Our ability to raise additional capital will depend on, among other things, conditions in the capital markets at that time, which are outside of our control, and our financial performance. Economic conditions and any loss of confidence in financial institutions generally may increase our cost of funding and limit access to certain customary sources of capital.

There can be no assurance that capital will be available on acceptable terms or at all. Any occurrence that may limit our access to the capital markets, such as a decline in the confidence of equity or debt purchasers, or counterparties participating in capital markets, may adversely affect our capital costs and our ability to raise capital and, potentially, our liquidity. Also, if we need to raise capital in the future, we may have to do so when many other financial institutions are also seeking to raise capital and would have to compete with those institutions for investors. An inability to raise additional capital on acceptable terms when needed could have a materially adverse effect on our business, financial condition and results of operations.

Legal, Accounting and Compliance Risks

We operate in a highly regulated environment and changes to or increases in, or supervisory enforcement of, banking or other laws and regulations or governmental fiscal or monetary policies could adversely affect us.

We are subject to extensive regulation, supervision and examination by federal and state banking authorities. In addition, as a publicly-traded company, we are subject to regulation by the SEC. Any change in applicable regulations or federal, state or local legislation or in policies or interpretations or regulatory approaches to compliance and enforcement, income tax laws and accounting principles could have a substantial impact on us and our operations. Changes in laws and regulations may also increase our expenses by imposing additional fees or taxes or restrictions on our operations. Additional legislation and regulations that could significantly affect our powers, authority and operations may be enacted or adopted in the future, which could have a material adverse effect on our business, financial condition, results of operations and prospects. Failure to appropriately comply with any such laws, regulations or principles could result in sanctions by regulatory agencies or damage to our reputation, all of which could adversely affect our business, financial condition or results of operations. For example, the Dodd-Frank Act was enacted in July 2010. Among other provisions, the legislation (i) created the CFPB with broad powers to regulate consumer financial products such as credit cards and mortgages, (ii) resulted in new capital requirements from federal banking agencies, (iii) placed new limits on electronic debit card interchange fees and (iv) required the SEC and national stock exchanges to adopt significant new corporate governance and executive compensation reforms, some of which have yet to be promulgated. The Dodd-Frank Act and regulations that have been adopted thereunder have increased the overall costs of regulatory compliance, and further regulatory developments whether related to Dodd-Frank or otherwise may lead to additional costs. In addition, the CFPB has broad rulemaking authority and is the principal federal regulatory agency responsible for the supervision and enforcement of a wide range of consumer protection laws for banks with greater than \$10 billion in assets.

If we fail to maintain appropriate levels of capital or liquidity, we could become subject to formal or informal enforcement actions that may impose restrictions on our business, including limiting our lending activities or our ability to expand, requiring us to raise additional capital (which may be dilutive to shareholders) or requiring regulatory approval to pay dividends or otherwise return capital to shareholders. We also face the risk of becoming subject to new or more stringent requirements in connection with the introduction of new regulations or modifications of existing regulations, which could require us to hold more capital or liquidity or have other adverse effects on our business or profitability.

Further, regulators have significant discretion and authority to prevent or remedy unsafe or unsound practices or violations of laws or regulations by financial institutions and holding companies in the performance of their supervisory and enforcement duties. The exercise of regulatory authority may have an adverse impact, which could be material, on our business, financial condition, results of operations and prospects. Additionally, our business is affected significantly by the fiscal and monetary policies of the U.S. federal government and its agencies, including the Federal Reserve.

We cannot accurately predict the full effects of recent legislation or the various other governmental, regulatory, monetary and fiscal initiatives which have been and may be enacted on the financial markets, on the Company and on the Bank. The terms and costs of these activities, or any worsening of current financial market and economic conditions, could materially and adversely affect our business, financial condition and results of operations, as well as the trading price of our common stock.

Changes in accounting standards could materially impact our financial statements.

From time to time, the FASB and the SEC change the financial accounting and reporting standards that govern the preparation of our financial statements. These changes can materially impact how we record and report our financial condition and results of operations.

Risks Relating to Markets and External Events

National and global economic and other conditions could adversely affect our future results of operations or market price of our stock.

Our business is directly impacted by factors such as economic, political and market conditions, broad trends in industry and finance, changes in government monetary and fiscal policies and inflation, foreign policy, and financial market volatility, all of which are beyond our control. Global economies continue to face significant challenges to achieving normalized economic growth rates and there are continuing concerns about the effects of the COVID-19 pandemic related to the level of U.S. government debt and fiscal actions that may be taken to address that debt. There can be no assurance that economic conditions will continue to improve, and these conditions could worsen. Any renewed deterioration in the economies of the nation as a whole or in our markets would have an adverse effect, which could be material, on our business, financial condition, results of operations and prospects, and could also cause the market price of our stock to decline.

Substantial competition in our market areas could adversely affect us.

Commercial banking is a highly competitive business. We compete with other commercial banks, savings and loan associations, credit unions and finance, insurance and other non-depository companies operating in our market areas. We also experience competition, especially for deposits, from Internet-based banking institutions, which have grown rapidly in recent years. We are subject to substantial competition for loans and deposits from other financial institutions. Some of our competitors are not subject to the same degree of regulation and restriction as we are and/or have greater financial resources than we do. Some of our competitors may have liquidity issues, which could impact the pricing of deposits, loans and other financial products in our markets. Our inability to effectively compete in our market areas could have a material adverse impact on our business, financial condition, results of operations and prospects.

Climate change concerns could adversely affect our business, affect client activity levels and damage our reputation.

Concerns over the long-term impacts of climate change have led and will continue to lead to governmental efforts around the world to mitigate those impacts. Consumers and businesses are also changing their behavior and business preferences as a result of these concerns. New governmental regulations or guidance relating to climate change, as well as changes in consumers' and businesses' behaviors and business preferences, may affect whether and on what terms and conditions we will engage in certain activities or offer certain products or services. The governmental and supervisory focus on climate change could also result in our becoming subject to new or heightened regulatory requirements relating to climate change, such as requirements relating to operational resiliency or stress testing for various climate stress scenarios. Any such new or heightened requirements could result in increased regulatory, compliance or other costs or higher capital requirements. In connection with the transition to a low carbon economy, legislative or public policy changes and changes in consumer sentiment could negatively impact the businesses and financial condition of our clients, which may decrease revenues from those clients and

increase the credit risk associated with loans and other credit exposures to those clients. Our business, reputation and ability to attract and retain employees may also be harmed if our response to climate change is perceived to be ineffective or insufficient.

Our business is subject to the risks of earthquakes, tsunamis, floods, fires and other natural catastrophic events.

A major catastrophe, such as an earthquake, tsunami, flood, fire or other natural disaster, including those caused or exacerbated by climate change, could result in a prolonged interruption of our business. For example, our headquarters are located in Tacoma, Washington and we have operations throughout the Northwest, a geographical region that has been or may be affected by earthquakes, wildfires, tsunamis and flooding activity, and in Northern California, a geographical region that has been and continues to be affected by earthquakes and wildfires. Because we primarily serve individuals and businesses in the Northwest and Northern California, a natural disaster likely would have a greater impact on our business, operations and financial condition than if our business were more geographically diverse. The occurrence of any of these natural disasters could negatively impact our performance by disrupting our operations or the operations of our customers, which could have a material adverse effect on our financial condition, results of operations and cash flows.

Risks Relating to Investment in our Stock

There can be no assurance as to the level of dividends we may pay on our common stock.

Holders of our common stock are only entitled to receive such dividends as our board of directors declares out of funds legally available for such payments. Although we have historically declared cash dividends on our common stock, we are not required to do so and there may be circumstances under which we would eliminate our common stock dividend in the future. This could adversely affect the market price of our common stock.

We rely on dividends and other payments from our bank for substantially all of our revenue.

We are a separate and distinct legal entity from the Bank, and we receive substantially all of our operating cash flows from dividends and other payments from the Bank. These dividends and payments are the principal source of funds to pay dividends on our capital stock and interest and principal on any debt we may have. Various federal and state laws and regulations limit the amount of dividends that the Bank may pay to us. Also, our right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to the prior claims of the subsidiary's creditors. In the event the Bank is unable to pay dividends to us, we may not be able to service debt, pay obligations or pay dividends on our common stock. The inability to receive dividends from the Bank could have a material adverse impact on our business, financial condition, results of operations and prospects.

We have various anti-takeover measures that could impede a takeover.

Our articles of incorporation include certain provisions that could make it more difficult to acquire us by means of a tender offer, a proxy contest, merger or otherwise. These provisions include certain non-monetary factors that our board of directors may consider when evaluating a takeover offer, and a requirement that any "Business Combination" be approved by the affirmative vote of no less than 66 2/3% of the total shares attributable to persons other than a "Control Person." These provisions may have the effect of lengthening the time required for a person to acquire control of us through a tender offer, proxy contest or otherwise, and may deter any potentially hostile offers or other efforts to obtain control of us. This could deprive our shareholders of opportunities to realize a premium for their Columbia common stock, even in circumstances where such action is favored by a majority of our shareholders.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The Company's principal properties include our corporate headquarters which is located at 13th & A Street, Tacoma, Washington, two operations facilities in Pierce County, Washington, one operations facility in Vancouver, Washington, one operations facility in Wilsonville, Oregon, and one operations center in Redding, California.

The Company's branch network as of December 31, 2021 is made up of 153 branches located throughout several Washington, Oregon, Idaho and California counties compared to 145 branches at December 31, 2020. The number of branches per state, as well as whether they are owned or operated under a lease agreement is detailed in the following table:

	Number of Branches	Occupancy Type	
		Owned	Leased
Washington branches	68	50	18
Oregon branches	59	32	27
Idaho branches	15	10	5
California branches	11	9	2
Total Columbia Bank branches	153	101	52

For additional information concerning our premises and equipment and lease obligations, see Notes 8 and 10 respectively, to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report.

ITEM 3. LEGAL PROCEEDINGS

For information regarding the Company's legal proceedings, please see Note 19, to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report.

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

Common Stock

The Company's common stock is traded on the Nasdaq Global Select Market of **The Nasdaq Stock Market LLC** under the symbol "COLB." At January 31, 2022, the number of shareholders of record was 3,165. This figure does not represent the actual number of beneficial owners of common stock because shares are frequently held in "street name" by securities dealers and others for the benefit of individual owners who may vote the shares.

At December 31, 2021, there were no stock options outstanding. Additional information about stock options and other equity compensation plans is included in Note 24 to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report.

Equity Compensation Plan Information

The following table provides information as of December 31, 2021, regarding securities issued and to be issued under our equity compensation plans that were in effect during 2021:

	Year Ended December 31, 2021		
	Number of Shares to be Issued Upon Exercise of Outstanding Options and Rights	Weighted Average Exercise Price of Outstanding Options and Rights	Number of Shares Remaining Available for Future Issuance Under Equity Compensation Plans (1)
Equity compensation plans approved by security holders	—	\$ —	2,142,397
Equity compensation plans not approved by security holders	—	—	—

- (1) Includes 1,982,124 shares available for future issuance under the current stock option and equity compensation plan and 160,273 shares available for purchase under the Employee Stock Purchase Plan as of December 31, 2021.

The following table provides information about repurchases of common stock by the Company during the quarter ended December 31, 2021:

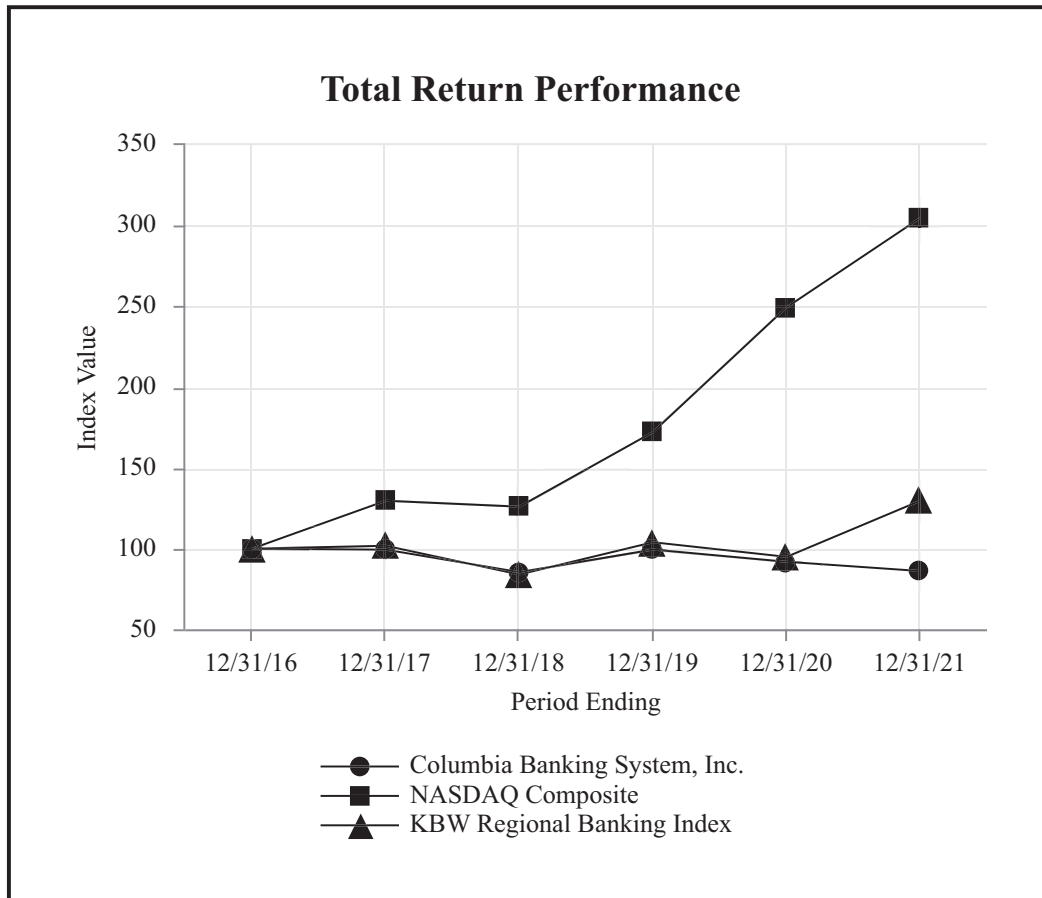
Period	Total Number of Common Shares Purchased (1)	Average Price Paid per Common Share	Total Number of Shares Purchased as Part of Publicly Announced Plan (2)	Maximum Number of Remaining Shares That May Yet Be Purchased Under the Plan (2)
10/1/2021 - 10/31/2021	—	\$ —	—	3,500,000
11/1/2021 - 11/30/2021	1,074	35.18	—	3,500,000
12/1/2021 - 12/31/2021	84	33.05	—	—
	1,158	35.03	—	

- (1) Common shares repurchased by the Company during the quarter consisted of cancellation of 1,158 shares of common stock to pay the shareholders' withholding taxes. There were no shares of common stock purchased under the Company's stock repurchase program during the quarter.
- (2) On October 28, 2020, the board of directors approved a stock repurchase program to repurchase up to 3.5 million shares of its outstanding stock, up to a maximum aggregate purchase price of \$100.0 million through December 31, 2021. The plan expired on December 31, 2021.

Five-Year Stock Performance Graph

The following graph shows a five-year comparison of the total return to shareholders of Columbia's common stock, the NASDAQ Composite Index (which is a broad nationally recognized index of stock performance by companies listed on the Nasdaq Stock Market) and the KBW Regional Banking Index (comprised of 50 banks and bank holding companies headquartered throughout the country, including Columbia).

The definition of total return includes appreciation in market value of the stock as well as the actual cash and stock dividends paid to shareholders. The graph assumes that the value of the investment in Columbia's common stock, the NASDAQ Composite and the KBW Regional Banking Index was \$100 on December 31, 2016, and that all dividends were reinvested.



Index	Period Ending					
	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021
Columbia Banking System, Inc.	100.00	99.35	85.41	99.41	91.83	86.10
NASDAQ Composite	100.00	129.64	125.96	172.18	249.51	304.85
KBW Regional Banking Index	100.00	101.75	83.95	103.94	94.89	129.65

Source: Bloomberg LP, New York City, NY

ITEM 6. RESERVED

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

This discussion should be read in conjunction with our Consolidated Financial Statements and related notes in "Item 8. Financial Statements and Supplementary Data" of this report. In the following discussion, unless otherwise noted, references to increases or decreases in average balances in items of income and expense for a particular period and balances at a particular date refer to the comparison with corresponding amounts for the period or date for the previous year.

Critical Accounting Policies and Estimates

We have established certain accounting policies in preparing our Consolidated Financial Statements that are in accordance with accounting principles generally accepted in the United States. Our significant accounting policies are presented in Note 1 to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report. Certain of these policies require the use of judgments, estimates and economic assumptions which may prove inaccurate or are subject to variation that may significantly affect our reported results of operations and financial position for the periods presented or in future periods. Management believes that the judgments, estimates and economic assumptions used in the preparation of the Consolidated Financial Statements are appropriate given the factual circumstances at the time. We consider the following policies to be most critical in understanding the judgments that are involved in preparing our Consolidated Financial Statements.

Allowance for Credit Losses

The Company's determination of its ACL is a critical accounting estimate. The allowance for credit losses under ASC 326 is an accounting estimate of expected losses over the contractual life of assets carried at amortized cost within the Company's loan portfolio at the balance sheet date. The ASU requires a financial asset (or group of financial assets) measured at amortized cost to be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset to present the net carrying value at the amount expected to be collected on the financial asset.

The quantitative allowance is calculated using a DCF approach with a probability of default methodology. The probability of default is an assumption derived from regression models which determine the relationship between historical defaults and certain economic variables. The Company determines a reasonable and supportable forecast and applies that forecast to the model to determine defaults over the forecast period. The forecast includes estimates for key economic variables. While there are several economic variables included, the ones most predominantly used in our models are unemployment rate, consumer price index, real gross domestic product and disposable personal income. Following the forecast period, the economic variables used to calculate the probability of default revert to a historical average. Other assumptions relevant to the discounted cash flow model to derive the quantitative allowance include the loss given default, which is the estimate of loss for a defaulted loan, and the discount rate applied to future cash flows. The model calculates the net present value of each loan using both the contractual and expected cash flows, respectively. The ACL is determined at the end of each quarter and is based on all relevant information and expectations at that time in accordance with GAAP and the ACL guidance. Future changes to the estimate are likely as new information becomes available regarding economic conditions, loan composition and identifiable risk factors. While quantifiable estimates are generated, management judgements regarding credit risks and the inherent imprecision with the models utilized support the overall ACL.

In addition to the quantitative portion of the allowance for credit losses, the Company also considers the effects of the following qualitative factors in its calculation of expected losses in the loan portfolio:

- Economic and business conditions;
- Concentration of credit;
- Lending management and staff;
- Lending policies and procedures;
- Loss and recovery trends;
- Nature and volume of the portfolio;
- Trends in problem loans, loan delinquencies and nonaccrual loans;
- Quality of internal loan review; and
- Other external factors such as the effect of economic stimulus and loan modification programs.

These qualitative factors are based in quantitative factors but also include a high degree of subjectivity and changes in any of the factors could have a significant impact on our calculation of the allowance.

Loans for which repayment is expected to be provided substantially through the operation or sale of collateral are considered collateral-dependent. The allowance for credit losses for collateral-dependent loans is measured on the basis of the fair value of the collateral when foreclosure is probable.

Our ACL at December 31, 2021 was \$155.6 million. Given the dynamic relationships between economic variables, it is difficult to estimate the impact of a change in any one individual variable on the ACL. To illustrate a hypothetical sensitivity, however, we performed an analysis on the unemployment rate economic variable to evaluate the impact of a change in that assumption over the reasonable and supportable forecast period. If the unemployment rate increased by 100 basis points, the ACL estimate would increase by \$3.5 million and if the unemployment rate were decreased by 100 basis points, the ACL estimate would decrease by \$4.0 million.

Our allowance policy and the judgments, estimates and economic assumptions involved are described in greater detail in the “Allowance for Credit Losses and Unfunded Commitments and Letters of Credit” section of this discussion and in Note 1 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report.

Business Combinations

The Company applies the acquisition method of accounting for business combinations. Under the acquisition method, the acquiring entity in a business combination recognizes the assets acquired and liabilities assumed at their acquisition date fair values. Management utilizes prevailing valuation techniques appropriate for the asset or liability being measured in determining these fair values. Any excess of the purchase price over amounts allocated to assets acquired, including identifiable intangible assets, and liabilities assumed is recorded as goodwill. Where amounts allocated to assets acquired and liabilities assumed is greater than the purchase price, a bargain purchase gain is recognized. Acquisition-related costs are expensed as incurred.

Valuation and Recoverability of Goodwill

Goodwill represented \$823.2 million of our \$20.95 billion in total assets as of December 31, 2021. The Company has a single reporting unit. We review goodwill for impairment annually as of July 31, and also test for impairment between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of our reporting unit below its carrying amount. Such events and circumstances may include among others: a significant adverse change in legal factors or in the general business climate; significant decline in our stock price and market capitalization; unanticipated competition; the testing for recoverability of a significant asset group within the reporting unit; and an adverse action or assessment by a regulator. Any adverse change in these factors could have a significant impact on the recoverability of goodwill and could have a material impact on our Consolidated Financial Statements.

Under the Intangibles-Goodwill and Other topic of the FASB ASC, goodwill is not amortized but rather is tested for impairment at the reporting unit level on at least an annual basis. The test for impairment requires the Company to compare the fair value of the reporting unit to its carrying value. If the fair value of the reporting unit is less than its carrying value, the difference is the amount of impairment and goodwill is written down to the fair value of the reporting unit. Prior to completing the impairment test, however, the Company may assess qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount. If such an assessment indicates the fair value of the reporting unit is more likely than not greater than its carrying value, then the impairment test need not be completed.

The accounting estimates related to our goodwill require us to make considerable assumptions about fair value. Our assumptions regarding fair value require significant judgment about economic and industry factors and the growth and earnings prospects of the Bank. Changes in these judgments, either individually or collectively, may have a significant effect on the estimated fair value.

Based on the results of the annual goodwill impairment test, we determined that no goodwill impairment charges were required as our single reporting unit’s fair value exceeded its carrying amount. As of December 31, 2021, we determined there were no events or circumstances which would more likely than not reduce the fair value of our reporting unit below its carrying amount.

Please refer to Note 9 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report for further discussion.

2021 Financial Summary

Income Statement

- Consolidated net income for 2021 was \$202.8 million, or \$2.78 per diluted common share, compared with net income of \$154.2 million, or \$2.17 per diluted common share in 2020.
 - Net interest income for 2021 increased 5% to \$527.5 million compared to \$500.1 million for 2020. Interest income was \$536.1 million in 2021, compared to \$517.8 million in 2020. The increase was primarily due to higher average securities balances partially offset by a lower rate environment. Interest expense for 2021 decreased \$9.2 million to \$8.5 million compared to \$17.7 million in 2020, due to lower rates on interest-bearing deposits and FHLB advances as well as lower average FHLB balances.
 - Provision for credit loss on loans was \$4.8 million in 2021, compared to \$77.7 million in 2020. Provision expense for the current year included \$16.2 million related to the acquired Bank of Commerce non-PCD loans. The decrease in provision expense for 2021 reflects positive economic trends during 2021 as a result of improved economic forecasts.
 - Noninterest income was \$94.1 million for 2021, a decrease from \$104.5 million for 2020. The decrease in 2021 was primarily due lower investment securities gains and loan revenue partially offset by increases in card revenue, financial services and other noninterest income.
 - Noninterest expense for 2021 increased \$25.8 million to \$360.3 million compared to \$334.5 million in 2020. The increase was due to acquisition-related expenses as well as ongoing expenses related to our Bank of Commerce acquisition, which closed in the fourth quarter of 2021.

Balance Sheet

- Total assets at December 31, 2021 were \$20.95 billion, up 26%, or \$4.36 billion from \$16.58 billion at the end of 2020 due to organic growth as well as our acquisition of Bank of Commerce.
- The Company is well-capitalized with a total risk-based capital ratio of 14.21% at December 31, 2021.
 - Cash and cash equivalents at December 31, 2021 were \$824.7 million, up 26% from \$653.8 million at December 31, 2020 due to an increase in interest-earning deposits with banks.
 - Debt securities at December 31, 2021 were \$8.06 billion, up 55% from \$5.21 billion at December 31, 2020.
 - Loans were \$10.64 billion, an increase of \$1.21 billion from \$9.43 billion at the end of 2020.
 - The ACL increased to \$155.6 million at December 31, 2021 compared to \$149.1 million at December 31, 2020 due to higher average balances. The Company's allowance was 1.46% of total loans, compared with 1.58% at the end of 2020 as a result of positive economic trends.
 - Nonperforming assets totaled \$23.4 million at December 31, 2021, down from \$35.4 million at December 31, 2020. Nonperforming assets to year end assets decreased to 0.11% at December 31, 2021 compared to 0.21% at December 31, 2020.
 - Deposits were \$18.01 billion at December 31, 2021, an increase of \$4.14 billion compared to \$13.87 billion at December 31, 2020.
 - FHLB advances did not materially change from December 31, 2020 and were \$7.4 million at December 31, 2021.

Business Combinations

On October 1, 2021, the Company completed its acquisition of Bank of Commerce. The Company acquired approximately \$2.04 billion in assets, including \$1.08 billion in loans measured at fair value and \$1.74 billion in deposits. See Note 2 to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report for further information regarding this acquisition.

COVID-19 Update

We continue to manage our response to the pandemic by adapting to the recommendations of healthcare officials in order to provide a safe environment for continued operations. Our multi-layered approach incorporates remote work arrangements where possible as well as social distancing, enhanced cleaning practices, optimized HVAC systems, face coverings and contact tracing of confirmed COVID-19 cases. Updates regarding new guidance from local and national healthcare officials, information on vaccines and information on access to free support resources available through our benefits program have been provided through regular communication with employees. The measures we have implemented have proved effective in mitigating the spread of the virus in our organization and have allowed for the continued safe operation of our branches and facilities.

Flexibility and adaptability have been key factors in supporting our employees throughout the pandemic. As cases in communities peaked and local and State governments responded with additional guidelines, we adjusted controls and flexed our workforce to remote arrangements as needed. We continue to employ the use of virtual collaboration tools, video conferencing and regular communication to facilitate work and support our Do RIGHT culture. Opportunities for professional learning and development inside our organization have also transitioned to virtual environments, providing uninterrupted access to leadership training programs and ongoing development activities for employees working remotely as well as those working on location.

When COVID-19 arrived in early 2020, we formulated a very deliberate strategy focused on continuing to build the business throughout the pandemic while at the same time ensuring the safety of our employees and clients. As the pandemic's disruption entered its second year, our employees remained laser focused on helping our clients keep pace with the changes affecting their lives and businesses. We rolled out the second phase of the PPP extending another \$563.2 million of much needed aid for businesses and communities bringing the total PPP lending to \$1.53 billion, and we helped guide our borrowers through the SBA forgiveness process. We continued to invest in our people, sales training and systems, and our bankers have responded by keeping our pipelines full and providing custom solutions to meet the needs of existing and new clients.

For additional information on the impact and potential impact of COVID-19 on our business, financial condition, liquidity, capital and results of operations, see Part I, Item 1A "Risk Factors" of this report.

RESULTS OF OPERATIONS

Summary

A summary of the Company's results of operations for each of the last three years ended December 31 follows:

	Year ended	Increase (Decrease)		Year ended	Increase (Decrease)		Year ended
	2021	Amount	% (1)	2020	Amount	% (1)	2019
	(dollars in thousands, except per share amounts)						
Interest income	\$ 536,065	\$ 18,256	4	\$ 517,809	\$ (12,143)	(2)	\$ 529,952
Interest expense	8,546	(9,152)	(52)	17,698	(18,849)	(52)	36,547
Net interest income	527,519	27,408	5	500,111	6,706	1	493,405
Provision for credit losses	4,800	(72,900)	(94)	77,700	74,207	N/M	3,493
Noninterest income	94,094	(10,406)	(10)	104,500	7,319	8	97,181
Noninterest expense:							
Compensation and employee benefits	224,034	14,312	7	209,722	(3,145)	(1)	212,867
Other expense	136,270	11,473	9	124,797	(7,818)	(6)	132,615
Total	360,304	25,785	8	334,519	(10,963)	(3)	345,482
Income before income taxes	256,509	64,117	33	192,392	(49,219)	(20)	241,611
Provision for income taxes	53,689	15,541	41	38,148	(9,012)	(19)	47,160
Net income	\$ 202,820	\$ 48,576	31	\$ 154,244	\$ (40,207)	(21)	\$ 194,451
Less: earnings allocated to participating securities	330	(382)	(54)	712	(818)	(53)	1,530
Earnings allocated to common shareholders	\$ 202,490	\$ 48,958	32	\$ 153,532	\$ (39,389)	(20)	\$ 192,921
Earnings per common share, diluted	\$ 2.78	\$ 0.61	28	\$ 2.17	\$ (0.51)	(19)	\$ 2.68

(1) Percentage changes greater than +/- 1000% are considered not meaningful and are presented as "N/M."

Net Interest Income

Net interest income is the difference between interest income and interest expense. Net interest income on a fully taxable-equivalent basis expressed as a percentage of average total interest-earning assets is referred to as the net interest margin, which represents the average net effective yield on interest-earning assets.

The following table sets forth the average balances of all major categories of interest-earning assets and interest-bearing liabilities, the total dollar amounts of interest income on interest-earning assets and interest expense on interest-bearing liabilities, the average yield earned on interest-earning assets and average cost of interest-bearing liabilities by category and in total, net interest income, net interest spread, net interest margin and the ratio of average interest-earning assets to interest-bearing liabilities:

Net Interest Income Summary

	2021			2020			2019		
	Average Balances	Interest Earned/ Paid	Average Rate	Average Balances	Interest Earned/ Paid	Average Rate	Average Balances	Interest Earned/ Paid	Average Rate
<i>(dollars in thousands)</i>									
ASSETS									
Loans, net (1)(2)	\$ 9,832,385	\$ 420,439	4.28 %	\$ 9,411,213	\$ 430,923	4.58 %	\$ 8,612,478	\$ 453,552	5.27 %
Taxable securities	5,701,810	107,594	1.89 %	3,531,357	81,578	2.31 %	2,703,423	69,864	2.58 %
Tax exempt securities (2)	651,468	14,869	2.28 %	451,561	12,110	2.68 %	463,689	13,589	2.93 %
Interest-earning deposits with banks	725,155	955	0.13 %	522,480	661	0.13 %	58,043	1,312	2.26 %
Total interest-earning assets	16,910,818	543,857	3.22 %	13,916,611	525,272	3.77 %	11,837,633	538,317	4.55 %
Other earning assets	252,476			235,491			231,731		
Noninterest-earning assets	1,284,841			1,249,117			1,271,660		
Total assets	<u>\$ 18,448,135</u>			<u>\$ 15,401,219</u>			<u>\$ 13,341,024</u>		
LIABILITIES AND SHAREHOLDERS' EQUITY									
Money market accounts	\$ 3,805,723	\$ 3,083	0.08 %	\$ 3,043,731	\$ 4,381	0.14 %	\$ 2,591,303	\$ 10,598	0.41 %
Interest-bearing demand	1,637,531	1,225	0.07 %	1,248,975	1,453	0.12 %	1,064,145	1,676	0.16 %
Savings accounts	1,382,277	217	0.02 %	1,022,388	153	0.01 %	892,518	183	0.02 %
Interest-bearing public funds, other than certificates of deposit	721,090	1,005	0.14 %	544,109	2,003	0.37 %	440,359	7,244	1.65 %
Certificates of deposit	363,902	656	0.18 %	348,855	1,377	0.39 %	395,421	2,445	0.62 %
Total interest-bearing deposits	7,910,523	6,186	0.08 %	6,208,058	9,367	0.15 %	5,383,746	22,146	0.41 %
FHLB advances and FRB borrowings	7,388	291	3.94 %	342,721	6,264	1.83 %	470,082	11,861	2.52 %
Subordinated debentures	37,258	1,932	5.19 %	35,184	1,871	5.32 %	35,368	1,871	5.29 %
Other borrowings and interest-bearing liabilities	53,052	137	0.26 %	40,862	196	0.48 %	34,622	669	1.93 %
Total interest-bearing liabilities	8,008,221	8,546	0.11 %	6,626,825	17,698	0.27 %	5,923,818	36,547	0.62 %
Noninterest-bearing deposits	7,811,880			6,304,197			5,139,941		
Other noninterest-bearing liabilities	225,579			206,921			160,623		
Shareholders' equity	2,402,455			2,263,276			2,116,642		
Total liabilities & shareholders' equity	<u>\$ 18,448,135</u>			<u>\$ 15,401,219</u>			<u>\$ 13,341,024</u>		
Net interest income (tax equivalent)	<u>\$ 535,311</u>			<u>\$ 507,574</u>			<u>\$ 501,770</u>		
Net interest spread (tax equivalent)			3.11 %			3.50 %			3.93 %
Net interest margin (tax equivalent)			3.17 %			3.65 %			4.24 %
Average interest-earning assets to average interest-bearing liabilities			211.17 %			210.00 %			199.83 %

- (1) Nonaccrual loans have been included in the table as loans carrying a zero yield. Amortized net deferred loan fees and unearned net discounts on acquired loans were included in the interest income calculations. The amortization of net deferred loan fees was \$32.2 million, \$21.6 million and \$8.4 million for the years ended December 31, 2021, 2020 and 2019, respectively. The incremental accretion of net unearned discounts on acquired loans was \$2.8 million, \$6.2 million and \$9.1 million for the years ended December 31, 2021, 2020 and 2019.
- (2) Yields are shown on a fully taxable equivalent basis. The tax equivalent yield adjustment to interest earned on loans was \$4.7 million, \$4.9 million and \$5.5 million for the years ended December 31, 2021, 2020 and 2019, respectively. The tax equivalent yield adjustment to interest earned on tax exempt securities was \$3.1 million, \$2.5 million and \$2.9 million for the years ended December 31, 2021, 2020 and 2019, respectively.

Net interest income is impacted by the volume (changes in volume multiplied by prior rate), interest rate (changes in rate multiplied by prior volume) and the mix of interest-earning assets and interest-bearing liabilities. The following table shows changes in net interest income on a fully taxable-equivalent basis between 2021 and 2020, as well as between 2020 and 2019 broken down between volume and rate. Changes attributable to the combined effect of volume and interest rates have been allocated proportionately to the changes due to volume and the changes due to interest rates:

Changes in Net Interest Income

	2021 Compared to 2020 Increase (Decrease) Due to			2020 Compared to 2019 Increase (Decrease) Due to		
	Volume	Rate	Total (1)	Volume	Rate	Total (1)
<i>(in thousands)</i>						
Interest Income						
Loans, net	\$ 18,770	\$ (29,254)	\$ (10,484)	\$ 39,783	\$ (62,412)	\$ (22,629)
Taxable securities	43,066	(17,050)	26,016	19,710	(7,996)	11,714
Tax-exempt securities	4,764	(2,005)	2,759	(349)	(1,130)	(1,479)
Interest earning-deposits with banks	265	29	294	1,634	(2,285)	(651)
Interest income	<u>\$ 66,865</u>	<u>\$ (48,280)</u>	<u>\$ 18,585</u>	<u>\$ 60,778</u>	<u>\$ (73,823)</u>	<u>\$ (13,045)</u>
Interest Expense						
Deposits:						
Money market accounts	\$ 922	\$ (2,220)	\$ (1,298)	\$ 1,596	\$ (7,813)	\$ (6,217)
Interest-bearing demand	377	(605)	(228)	261	(484)	(223)
Savings accounts	56	8	64	24	(54)	(30)
Interest-bearing public funds, other than certificates of deposit	513	(1,511)	(998)	1,398	(6,639)	(5,241)
Certificates of deposit	<u>57</u>	<u>(778)</u>	<u>(721)</u>	<u>(262)</u>	<u>(806)</u>	<u>(1,068)</u>
Total interest on deposits	1,925	(5,106)	(3,181)	3,017	(15,796)	(12,779)
FHLB advances and FRB borrowings	(9,371)	3,398	(5,973)	(2,775)	(2,822)	(5,597)
Subordinated debentures	106	(45)	61	—	—	—
Other borrowings and interest-bearing liabilities	<u>107</u>	<u>(166)</u>	<u>(59)</u>	<u>149</u>	<u>(622)</u>	<u>(473)</u>
Interest expense	<u>\$ (7,233)</u>	<u>\$ (1,919)</u>	<u>\$ (9,152)</u>	<u>\$ 391</u>	<u>\$ (19,240)</u>	<u>\$ (18,849)</u>
	<u>\$ 74,098</u>	<u>\$ (46,361)</u>	<u>\$ 27,737</u>	<u>\$ 60,387</u>	<u>\$ (54,583)</u>	<u>\$ 5,804</u>

(1) The change in interest not due solely to volume or rate has been allocated in proportion to the absolute dollar amount of the change in each.

Comparison of 2021 with 2020

Taxable-equivalent net interest income totaled \$535.3 million in 2021, compared with \$507.6 million for 2020. The increase in net interest income during 2021 resulted from the increase in the size of the investment securities and loan portfolios. Also contributing to the increase in net interest income was a decrease in interest expense on deposits due to the lower rate environment and lower average FHLB advance balances. These increases in net interest income were partially offset by lower interest rates on loans and securities due to the lower rate environment.

The Company's net interest margin (tax equivalent) decreased from 3.65% for the year ended December 31, 2020 to 3.17% for the current year. The decrease in the net interest margin (tax equivalent) was driven by higher average balances as well as lower rates on the loan and securities portfolios. In addition, lower rates on deposits and lower average FHLB advance balances partially offset the decrease to the net interest margin due to the lower rate environment. The Company's operating net interest margin (tax equivalent) decreased from 3.64% for the year ended December 31, 2020 to 3.17% for the current year for the same reasons for the decline in the net interest margin discussed above. For additional information on Non-GAAP measures, see the Non-GAAP Measures section of this discussion.

Comparison of 2020 with 2019

Taxable-equivalent net interest income totaled \$507.6 million in 2020, compared with \$501.8 million for 2019. The increase in net interest income during 2020 resulted from the increase in the size of the loan and investment securities portfolios as well as an increase in the average balance of interest-earning deposits with banks. The loan portfolio benefited from the origination of PPP loans during the year as a result of COVID-19. Also contributing to the increase in net interest income was a decrease in interest expense on deposits and FHLB advances due to the lower rate environment and lower average FHLB advance balances. These increases in net interest income were partially offset by lower interest rates paid on loans, securities and interest-earning deposits with banks due to the lower rate environment.

The Company's net interest margin (tax equivalent) decreased from 4.24% for the year ended December 31, 2019 to 3.65% for the year ended December 31, 2020. The decrease in the net interest margin (tax equivalent) was driven by higher average interest-earning deposits with banks at an average rate of 13 basis points as well as lower rates on the loan and securities portfolios. In addition, lower rates on deposits and FHLB advances also partially offset the decrease to the net interest margin due to the lower rate environment. The Company's operating net interest margin (tax equivalent) decreased from 4.23% for the year ended December 31, 2019 to 3.64% for 2020 for the same reasons for the decline in the net interest margin discussed above.

For a discussion of the methodologies used by management in recording interest income on loans, please see Note 1 to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report.

Provision for Credit Losses

Effective January 1, 2020, Columbia adopted ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments* and all related amendments. The ACL under ASU 2016-13 utilizes the CECL methodology which estimates the expected loan losses over the contractual life of the loans in the loan portfolio of the Bank. Prior to January 1, 2020, the ALLL incurred loss methodology was used which estimated the amount of loan losses that had been incurred at the balance sheet date.

The Company accounts for the credit risk associated with lending activities through its ACL and provision for credit losses. The provision is the expense recognized in the Consolidated Statements of Income to adjust the allowance to the level deemed appropriate by management, as determined through its application of the Company's allowance methodology procedures. For discussion of the methodology used by management in determining the adequacy of the ACL, see the "Allowance for Credit Losses and Unfunded Commitments and Letters of Credit" and "Critical Accounting Policies" sections of this discussion.

The Company recorded provision expense of \$4.8 million for credit losses during 2021 compared to a provision expense of \$77.7 million for 2020. A provision expense of \$3.5 million was recorded in 2019 under the previous ALLL methodology. The decrease in provision expense for 2021 was due to lower expected losses principally the result of improved economic forecasts. The provision included \$16.2 million of expense recorded in the fourth quarter related to the acquired Bank of Commerce non-PCD loans. In addition, the provision recorded in 2021 included management's ongoing assessment of the credit quality of the Company's loan portfolio. Factors affecting the provision include net charge-offs, credit quality migration and size and composition of the loan portfolio and changes in the economic environment during the period. See "Allowance for Credit Losses and Unfunded Commitments and Letters of Credit" section of this discussion for further information on factors considered by the Company in assessing the credit quality of the loan portfolio and establishing the ACL.

For the years ended December 31, 2021, 2020 and 2019, net loan charge-offs amounted to \$978 thousand, \$14.2 million, and \$2.9 million, respectively.

Noninterest Income

The following table presents the significant components of noninterest income and the related dollar and percentage change from period to period:

	Years ended December 31,					
	2021	\$ Change	% Change	2020	\$ Change	% Change
	(dollars in thousands)					
Deposit account and treasury management fees	\$ 27,107	\$ 88	— %	\$ 27,019	\$ (8,676)	(24)%
Card revenue	18,503	4,575	33 %	13,928	(1,270)	(8)%
Financial services and trust revenue	15,753	2,923	23 %	12,830	31	— %
Loan revenue	22,044	(2,758)	(11)%	24,802	11,337	84 %
Bank owned life insurance	6,533	115	2 %	6,418	124	2 %
Investment securities gains, net	314	(16,396)	(98)%	16,710	14,578	684 %
Other	3,840	1,047	37 %	2,793	(8,805)	(76)%
Total noninterest income	<u>\$ 94,094</u>	<u>\$ (10,406)</u>	(10)%	<u>\$ 104,500</u>	<u>\$ 7,319</u>	8 %

Comparison of 2021 with 2020

The \$10.4 million decrease in noninterest income was due to decreases in investment securities gains and loan revenue partially offset by increases in card revenue, financial services and other noninterest income. The decrease in investment securities gains was due to the prior year sale of Visa Class B restricted stock and the subsequent write up to fair value of the remaining Visa Class B shares that netted a total gain of \$16.4 million in 2020. The decrease in loan revenue was due to a decrease of \$2.1 million related to interest rate swap income and a decrease of \$1.2 million of mortgage banking revenue, which was caused by an overall reduction in loan volumes. These decreases in noninterest income were partially offset by an increase in card revenue of \$4.6 million due to higher debit card fees of \$2.7 million driven largely by higher interchange fees and ATM transaction fees. In addition, financial services revenue increased \$2.3 million and other noninterest income increased \$1.0 million primarily due a \$750 thousand gain related to the sale of our health savings accounts to a third party.

Comparison of 2020 with 2019

The \$7.3 million increase in noninterest income was due to increases in investment securities gains and loan revenue partially offset by decreases in other noninterest income and deposit account and treasury management fees. The increase in investment securities gains was due to the sale of 17,360 shares of Visa Class B restricted stock during the year resulting in a gain of \$3.0 million, which resulted in an observable market price. As a result, the Company wrote up its remaining 77,683 Visa Class B restricted shares to fair value resulting in a gain of \$13.4 million, for a total gain of \$16.4 million. Based on the existing transfer restriction and uncertainty of Visa's litigation, the shares were previously carried at a zero-cost basis. The increase in loan revenue was due to an increase of \$7.6 million of realized gains from the sale of mortgage loans into the secondary market as a result of higher loan volume. In addition, the increase in the fair value of the mortgage loan pipeline of \$1.1 million was the result of us beginning to sell a portion of our mortgage loans into the secondary market utilizing the mandatory delivery method during 2020. Also contributing to the rise in loan revenue was \$2.0 million of additional income from interest rate swap activity. These increases in noninterest income were partially offset by an \$8.8 million decrease in other noninterest income due to the gains realized from the sale of three real estate parcels and BOLI benefits both recognized in 2019. Deposit account and treasury management fees decreased \$8.7 million due to lower rates on reciprocal money market deposit accounts and lower overdraft fee income from a decline in the number of transactions amidst the pandemic as well as clients generally carrying higher cash balances in their deposit accounts.

Noninterest Expense

The following table presents the significant components of noninterest expense and the related dollar and percentage changes from period to period:

	Years ended December 31,						
	2021	\$ Change	% Change	2020	\$ Change	% Change	2019
	<i>(dollars in thousands)</i>						
Compensation and employee benefits	\$ 224,034	\$ 14,312	7 %	\$ 209,722	\$ (3,145)	(1)%	\$ 212,867
Occupancy	37,815	1,802	5 %	36,013	837	2 %	35,176
Data processing and software	33,498	4,049	14 %	29,449	2,354	9 %	27,095
Legal and professional fees	18,910	6,752	56 %	12,158	(9,487)	(44)%	21,645
Amortization of intangibles	7,987	(737)	(8)%	8,724	(1,755)	(17)%	10,479
B&O taxes	5,903	933	19 %	4,970	(876)	(15)%	5,846
Advertising and promotion	3,383	(1,083)	(24)%	4,466	(459)	(9)%	4,925
Regulatory premiums	4,912	1,956	66 %	2,956	1,036	54 %	1,920
Net cost (benefit) of operation of OREO . .	66	381	(121)%	(315)	377	(54)%	(692)
Other	23,796	(2,580)	(10)%	26,376	155	1 %	26,221
Total noninterest expense	<u>\$ 360,304</u>	<u>\$ 25,785</u>	8 %	<u>\$ 334,519</u>	<u>\$ (10,963)</u>	(3)%	<u>\$ 345,482</u>

The following table shows the impact of the acquisition-related expenses for the periods indicated to the various components of noninterest expense:

	Years ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Acquisition-related expenses:			
Compensation and employee benefits	\$ 4,875	\$ —	\$ —
Occupancy	271	—	—
Data processing and software	287	—	—
Legal and professional fees	8,287	—	—
Advertising & promotion	111	—	—
Other	683	—	—
Total impact of acquisition-related costs to noninterest expense	<u>\$ 14,514</u>	<u>\$ —</u>	<u>\$ —</u>
Acquisition-related expenses by transaction:			
Bank of Commerce (1)	\$ 10,370	\$ —	\$ —
Umpqua (2)	\$ 4,144	\$ —	\$ —
Total impact of acquisition-related costs to noninterest expense	<u>\$ 14,514</u>	<u>\$ —</u>	<u>\$ —</u>

(1) The Company completed the Bank of Commerce acquisition on October 1, 2021.

(2) Definitive agreements have been signed; however, completion of this transaction is pending as of the date of this filing.

Comparison of 2021 with 2020

Noninterest expense was \$360.3 million in 2021, an increase of \$25.8 million over 2020. Much of this increase was driven by acquisition-related expenses in the current year of \$14.5 million. After removing the effect of acquisition-related expenses, noninterest expense increased \$11.3 million mainly due to higher compensation and employee benefits stemming from additional personnel costs associated with the Bank of Commerce acquisition. Additional acquisition-related expenses related to the Bank of Commerce transaction are anticipated during 2022 as integration activities conclude. Also contributing to the increase was higher regulatory premiums mainly due to the prior year utilization of the remaining \$1.2 million of our FDIC Small Bank Assessment Credit. These increases were partially offset by lower other noninterest expense due to a lower provision for unfunded loan commitments.

Comparison of 2020 with 2019

Noninterest expense was \$334.5 million in 2020, a decrease of \$11.0 million over 2019. The decrease in noninterest expense was due to lower legal and professional service fees and compensation and employee benefits expense partially offset by an increase in other noninterest expense. The decrease in legal and professional fees was due to lower digital project expenses and lower reciprocal money market fees as a result of lower contractual rates compared to 2019. The decrease in compensation and employee benefits expense was principally due to labor costs related to the origination of PPP loans in 2020. These labor costs are capitalized and amortized as a reduction to interest income over the life of the loan. This decrease in compensation and employee benefits expense was partially offset by increases in salaries and incentives and commissions expense. The increase in other noninterest expense was due to a higher provision for unfunded loan commitments partially offset by a decrease in travel and entertainment expenses both as a result of COVID-19.

The provision (recapture) for unfunded loan commitments, a component of other noninterest expense, are as follows for the periods indicated:

	Years ended December 31,		
	2021	2020	2019
	(in thousands)		
Provision (recapture) for unfunded loan commitments	\$ 200	\$ 3,300	\$ (900)

Income Tax

For the years ended December 31, 2021, 2020 and 2019, we recorded income tax provisions of \$53.7 million, \$38.1 million and \$47.2 million, respectively. The effective tax rate was 21% in 2021 and 20% in 2020 and 2019. For additional information, see Note 25 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report.

Financial Condition

Our total assets increased 26% to \$20.95 billion at December 31, 2021 from \$16.58 billion at December 31, 2020. The acquisition of the Bank of Commerce during 2021 was a driver for the increase to total assets along with increases to other line items on our balance sheet. See Note 2 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report for further information regarding this acquisition. Cash and cash equivalents increased \$170.9 million. Total debt securities increased \$2.85 billion as a result of purchases of securities throughout the year to utilize our excess liquidity and the Bank of Commerce acquisition. The loan portfolio, net of the allowance for credit losses, increased \$1.21 billion.

Liabilities increased \$4.12 billion, or 29% to \$18.36 billion due to increases in total deposits partially offset by decreases in subordinated debentures. Total deposits increased \$4.14 billion. Total shareholders’ equity increased \$241.1 million to \$2.59 billion.

Investment Portfolio

We invest in securities to generate revenue for the Company, to manage liquidity while minimizing interest rate risk and to provide collateral for certain public deposits and short-term borrowings. The amortized cost amounts represent the Company’s original cost for the investments, adjusted for accumulated amortization or accretion of any yield adjustments related to the security. The estimated fair values are the amounts we believe the securities could be sold for as of the dates indicated. At December 31, 2021, gross unrealized losses in our debt securities available for sale portfolio were \$57.9 million related to 608 separate available for sale securities. Based on past experience with these types of securities and our own financial performance, we do not currently intend to sell any securities in a loss position nor does available evidence suggest it is more likely than not that management will be required to sell any securities currently in a loss position before the recovery of the amortized cost basis. We review these investments for credit losses on an ongoing basis.

All of the Company’s debt securities held to maturity were issued by U.S. government agencies or U.S. government-sponsored enterprises. These securities carry the explicit and/or implicit guarantee of the U.S. government, are widely recognized as “risk free,” and have a long history of zero credit loss. Therefore, the Company did not record an allowance for credit losses for these securities as of December 31, 2021.

Debt securities available for sale increased \$700.9 million from the prior year due to purchases of \$3.13 billion and the Bank of Commerce acquisition resulting in an additional \$654.5 million, partially offset by the transfer of securities with a fair value of \$2.01 billion from the available for sale classification to the held to maturity classification, maturities, repayments and sales of \$853.2 million, \$179.4 million in net unrealized gains, and premium amortization of \$37.1 million. Debt securities held to maturity totaled \$2.15 billion due to the \$2.01 billion transfer of securities into the held to maturity classification and purchases of \$257.5 million, partially offset by premium amortization of \$107.6 million and a \$13.7 million change in unrealized gain.

At December 31, 2021, U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations comprised 73% of our debt securities portfolio, other asset-backed securities were 6%, state and municipal securities were 12% and government agency, government-sponsored enterprise securities were 3%, government securities were 2% and non-agency collateralized mortgage obligations were 4%. The portion of our investment portfolio that is categorized as available for sale is carried on our balance sheet at fair value and the average duration was approximately 4 years and 9 months at December 31, 2021. The portion of our investment portfolio that is categorized as held to maturity is carried on our balance sheet at amortized cost and had an average duration of approximately 5 years and 7 months at December 31, 2021. These durations take into account calls, where appropriate, and consensus prepayment speeds.

The following table presents the contractual maturities and weighted average yield of our investment portfolio:

	December 31, 2021		
	Amortized Cost	Fair Value	Yield
<i>(dollars in thousands)</i>			
Available for sale:			
U.S. government agency and government-sponsored enterprise mortgage-backed securities & collateralized mortgage obligations (1)			
Due through 1 year	\$ 12,632	\$ 12,698	1.72 %
Over 1 through 5 years	420,439	434,356	2.79 %
Over 5 through 10 years	1,101,019	1,112,269	1.95 %
Over 10 years	2,204,526	2,186,278	1.64 %
Total	<u>\$ 3,738,616</u>	<u>\$ 3,745,601</u>	1.86 %
Other asset-backed securities (1)			
Over 1 through 5 years	\$ 22,477	\$ 22,533	2.11 %
Over 5 through 10 years	214,813	215,780	2.01 %
Over 10 years	231,762	224,750	1.47 %
Total	<u>\$ 469,052</u>	<u>\$ 463,063</u>	1.75 %
State and municipal securities (2)			
Due through 1 year	\$ 41,087	\$ 41,381	2.82 %
Over 1 through 5 years	139,385	143,532	2.79 %
Over 5 through 10 years	206,903	209,953	2.07 %
Over 10 years	596,329	602,425	2.29 %
Total	<u>\$ 983,704</u>	<u>\$ 997,291</u>	2.33 %
U.S. government agency and government-sponsored enterprise securities (1)			
Due through 1 year	\$ 32,394	\$ 32,776	2.07 %
Over 1 through 5 years	220,361	219,800	1.14 %
Total	<u>\$ 252,755</u>	<u>\$ 252,576</u>	1.26 %
U.S. government securities (1)			
Over 1 through 5 years	\$ 158,367	\$ 157,536	0.94 %
Total	<u>\$ 158,367</u>	<u>\$ 157,536</u>	0.94 %
Non-agency collateralized mortgage obligations (1)			
Over 10 years	\$ 295,547	\$ 294,932	2.17 %
Total	<u>\$ 295,547</u>	<u>\$ 294,932</u>	2.17 %
Held to maturity:			
U.S. government agency and government-sponsored enterprise mortgage-backed securities & collateralized mortgage obligations (1)			
Over 1 through 5 years	\$ 46,085	\$ 45,307	1.30 %
Over 5 through 10 years	1,256,426	1,240,587	1.55 %
Over 10 years	845,816	836,712	1.60 %
Total	<u>\$ 2,148,327</u>	<u>\$ 2,122,606</u>	1.56 %

- (1) The maturities reported for mortgage-backed securities, collateralized mortgage obligations, other asset-backed securities, government agency and government-sponsored enterprise securities, and government securities are based on contractual maturities and principal amortization.
- (2) Yields on fully taxable equivalent basis.

For further information on our investment portfolio, see Note 4 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report.

FHLB Stock

The FHLB stock is composed of two sub-classes: membership stock and activity based stock. Membership stock is stock we are required to purchase and hold as a condition of membership in the FHLB. The Company's membership stock purchase requirement is measured as a percentage of our year end assets, subject to a \$10 million cap. Activity based stock is stock we are required to purchase and hold in order to obtain an advance or participate in FHLB mortgage programs. The Company's activity based stock purchase requirement is measured as a percentage of our advance proceeds. At December 31, 2021, the Company held \$10.3 million of FHLB Class B stock, \$10.0 million of which was membership stock and the remaining \$280 thousand of which was activity based. The FHLB stock is issued, transferred, redeemed, and repurchased at a par value of \$100.

Loan Portfolio

Our wholly owned banking subsidiary Columbia State Bank is a full service commercial bank, which originates a wide variety of loans, and focuses its lending efforts on originating commercial real estate and commercial business loans.

Commercial Real Estate Loans: Commercial real estate loans are secured by properties located within our primary market areas and typically, have loan-to-value ratios of 80% or lower at origination. Our underwriting standards for commercial and multifamily residential loans generally require that the loan-to-value ratio for these loans not exceed 75% of appraised value, cost, or discounted cash flow value, as appropriate, and that commercial properties maintain debt coverage ratios (net operating income divided by annual debt servicing) of 1.2 or better. However, underwriting standards can be influenced by competition and other factors. We endeavor to maintain the highest practical underwriting standards while balancing the need to remain competitive in our lending practices.

Commercial Business Loans: Our commercial business lending is directed toward meeting the credit and related deposit and treasury management needs of small to medium sized businesses. Commercial and industrial loans are primarily underwritten based on the identified cash flows of the borrower's operations and secondarily on the underlying collateral provided by the borrower and/or the strength of the guarantor. The majority of these loans provide financing for working capital and capital expenditures. Loan terms, including, loan maturity, fixed or adjustable interest rate and collateral considerations, are based on factors such as the loan purpose, collateral type and industry and are underwritten on an individual loan basis.

Agriculture Loans: Agricultural lending includes agricultural real estate and production loans and lines of credit within our primary market area. We are committed to our Pacific Northwest communities, offering seasonal and longer-term loans and operating lines of credit by lending officers with expertise in the agricultural communities we serve. Typical loan-to-value ratios on term loans can range from 55% to 80% depending upon the type of loan. Operating lines of credit require the borrower to provide a 20% to 25% equity investment. The debt coverage ratio is generally 1.25:1 or better on all term loans.

Construction Loans: We originate a variety of real estate construction loans. Underwriting guidelines for these loans vary by loan type but include loan-to-value limits, term limits and loan advance limits, as applicable. Our underwriting guidelines for commercial and multifamily residential real estate construction loans generally require that the loan-to-value ratio not exceed 75% and stabilized debt coverage ratios (net operating income divided by annual debt service) of 1.2 or better. As noted above, underwriting standards can be influenced by competition and other factors. However, we endeavor to maintain the highest practical underwriting standards while balancing the need to remain competitive in our lending practices.

One-to-four Family Residential Real Estate Loans: One-to-four family residential loans, including home equity loans and lines of credit, are secured by properties located within our primary market areas and, typically, have loan-to-value ratios of 80% or lower at origination.

Other Consumer Loans: Consumer loans include automobile loans, boat and recreational vehicle financing, and other miscellaneous personal loans.

Foreign Loans: The Company has no material foreign activities. Substantially all of the Company's loans and unfunded commitments are geographically concentrated in its service areas within the states of Washington, Oregon, Idaho and California.

Maturities and Sensitivities of Loans to Changes in Interest Rates

The following table presents the maturity distribution of our loan portfolio and the sensitivity of these loans due after one year to changes in interest rates as of December 31, 2021:

	Maturing				
	Due Through 1 Year	Over 1 Through 5 Years	Over 5 Through 15 Years	Over 15 Years	Total
	<i>(in thousands)</i>				
Commercial loans:					
Commercial real estate	\$ 151,859	\$ 1,078,726	\$ 3,450,534	\$ 300,144	\$ 4,981,263
Commercial business	1,005,880	927,964	1,337,136	152,288	3,423,268
Agriculture	276,675	199,473	304,657	14,910	795,715
Construction	168,416	101,773	93,605	20,961	384,755
Consumer loans:					
One-to-four family residential real estate	27,473	53,440	264,911	668,084	1,013,908
Other consumer	7,791	14,922	14,047	6,268	43,028
Total loans	<u>\$ 1,638,094</u>	<u>\$ 2,376,298</u>	<u>\$ 5,464,890</u>	<u>\$ 1,162,655</u>	<u>\$ 10,641,937</u>
Fixed rate loans due after 1 year					
Commercial loans:					
Commercial real estate		\$ 553,810	\$ 2,218,938	\$ 61,512	\$ 2,834,260
Commercial business		640,142	1,042,808	35,344	1,718,294
Agriculture		108,519	181,281	6,979	296,779
Construction		13,068	74,252	5,408	92,728
Consumer loans:					
One-to-four family residential real estate		29,642	188,911	371,365	589,918
Other consumer		10,225	14,047	1,126	25,398
Total fixed rate loans due after 1 year		<u>\$ 1,355,406</u>	<u>\$ 3,720,237</u>	<u>\$ 481,734</u>	<u>\$ 5,557,377</u>
Variable rate loans due after 1 year					
Commercial loans:					
Commercial real estate		\$ 524,916	\$ 1,231,596	\$ 238,632	\$ 1,995,144
Commercial business		287,822	294,328	116,944	699,094
Agriculture		90,954	123,376	7,931	222,261
Construction		88,705	19,353	15,553	123,611
Consumer loans:					
One-to-four family residential real estate		23,798	76,000	296,719	396,517
Other consumer		4,697	—	5,142	9,839
Total variable rate loans due after 1 year		<u>\$ 1,020,892</u>	<u>\$ 1,744,653</u>	<u>\$ 680,921</u>	<u>\$ 3,446,466</u>
Total loans due after 1 year		<u>\$ 2,376,298</u>	<u>\$ 5,464,890</u>	<u>\$ 1,162,655</u>	<u>\$ 9,003,843</u>

The following table provides additional detail related to the Company's COVID-19 deferrals for the twelve-months ended December 31, 2021:

	December 31, 2020	Ended (1)	Re-deferral	New Deferral	December 31, 2021	% Change
	<i>(dollars in thousands)</i>					
Number of deferrals	70	(83)	3	14	4	(94.3)%
Balance of deferrals (2)	\$ 146,725	\$ (163,207)	\$ 17,213	\$ 13,342	\$ 14,073	(90.4)%

1) Ended includes re-deferrals that have ended.

2) Balance of deferrals are gross of unearned income.

Net unearned acquisition discount (premium): The following table provides additional details related to the net discount (premium) of acquired and purchased loans, by acquisition for the periods indicated:

	2021	2020	2019
Acquisition:	<i>(in thousands)</i>		
Bank of Commerce	\$ (12,923)	\$ —	\$ —
Pacific Continental	5,306	8,442	13,314
Intermountain	796	1,090	1,614
West Coast	1,138	1,695	2,675
All other purchased and acquired net discount (premium)	(6,965)	957	(1,378)
Total net discount (premium) at period end	<u>\$ (12,648)</u>	<u>\$ 12,184</u>	<u>\$ 16,225</u>

For additional information on our loan portfolio, including amounts pledged as collateral on borrowings, see Note 5 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report.

Allowance for Credit Losses

The ACL is an accounting estimate of expected credit losses in our loan portfolio at the balance sheet date. The provision for credit losses is the expense recognized in the Consolidated Statements of Income to adjust the ACL to the levels deemed appropriate by management, as measured by the Company’s credit loss estimation methodologies. The allowance for unfunded commitments and letters of credit is maintained at a level believed by management to be sufficient to absorb estimated expected losses related to these unfunded credit facilities at the balance sheet date.

Analysis of ACL

The table below sets forth the ratio of net charge-offs during the period to average loans outstanding during the period:

December 31,									
2021				2020			2019		
Net Chg-offs (Recoveries)	Average Loans	Ratio Net Charge-offs (Recoveries) to Average Loans		Net Chg-offs (Recoveries)	Average Loans	Ratio Net Charge-offs (Recoveries) to Average Loans	Net Chg-offs (Recoveries)	Average Loans	Ratio Net Charge-offs (Recoveries) to Average Loans
<i>(dollars in thousands)</i>									
Commercial loans:									
Commercial real estate	\$ 411	\$4,293,136	0.01 %	\$ 1,288	\$3,994,597	0.03 %	\$ (1,217)	\$3,730,306	(0.03)%
Commercial business	1,502	3,629,301	0.04 %	8,958	3,616,711	0.25 %	8,224	2,999,198	0.27 %
Agriculture	(33)	782,718	— %	6,255	759,059	0.82 %	(54)	726,717	(0.01)%
Construction	(593)	314,484	(0.19)%	(709)	313,604	(0.23)%	(3,399)	453,728	(0.75)%
Consumer loans:									
One-to-four family residential real estate	(737)	765,777	(0.10)%	(1,999)	673,854	(0.30)%	(577)	652,238	(0.09)%
Consumer	428	35,400	1.21 %	367	38,539	0.95 %	(83)	41,503	(0.20)%
Loans held for sale	—	11,569	— %	—	14,849	— %	—	8,788	— %
Total	<u>\$ 978</u>	<u>\$9,832,385</u>	<u>0.01 %</u>	<u>\$ 14,160</u>	<u>\$9,411,213</u>	<u>0.15 %</u>	<u>\$ 2,894</u>	<u>\$8,612,478</u>	<u>0.03 %</u>

Allocation of the ACL

The table below sets forth the allocation of the ACL by loan category:

Balance at End of Period Applicable to:	December 31,					
	2021		2020		2019	
	Amount	% of Total Loans(1)	Amount	% of Total Loans(1)	Amount	% of Total Loans(1)
<i>(dollars in thousands)</i>						
Commercial loans:						
Commercial real estate	\$ 61,254	46.8 %	\$ 68,934	43.0 %	\$ 20,340	45.1 %
Commercial business	54,712	32.2 %	45,250	38.2 %	30,292	34.2 %
Agriculture	8,148	7.5 %	9,052	8.3 %	15,835	8.8 %
Construction	5,397	3.6 %	7,636	2.8 %	8,571	4.1 %
Consumer loans:						
One-to-four family residential real estate	24,123	9.5 %	16,875	7.3 %	7,435	7.3 %
Consumer	1,944	0.4 %	1,393	0.4 %	883	0.5 %
Unallocated	—	— %	—	— %	612	— %
Total	<u>\$ 155,578</u>	<u>100.0 %</u>	<u>\$ 149,140</u>	<u>100.0 %</u>	<u>\$ 83,968</u>	<u>100.0 %</u>

(1) Represents the total of all outstanding loans in each category as a percent of total loans outstanding.

Credit Ratios

The following table sets forth the ratios between the ACL, nonaccrual loans and total loans:

	December 31,		
	2021	2020	2019
<i>(dollars in thousands)</i>			
ACL at end of period	\$ 155,578	\$ 149,140	\$ 83,968
Nonaccrual loans at end of period	\$ 23,041	\$ 34,806	\$ 33,060
Loans outstanding at end of period	\$ 10,641,937	\$ 9,427,660	\$ 8,743,465
ACL to total loans	<u>1.46 %</u>	<u>1.58 %</u>	<u>0.96 %</u>
Nonaccrual loans to total loans	<u>0.22 %</u>	<u>0.37 %</u>	<u>0.38 %</u>
ACL to nonaccrual loans	<u>675.22 %</u>	<u>428.49 %</u>	<u>253.99 %</u>

The increases in the ratio of ACL to total loans and the ratio of ACL to nonaccrual loans from 2019 to 2020 was principally the result of the COVID-19 pandemic and the downturn in national and global economies as well as increased unemployment rates. The increase in the ratio of ACL to nonaccrual loans from 2020 to 2021 was primarily due to a decrease in nonaccrual loans. For additional information on our allowance for credit losses, see Note 6 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report.

Deposits

The following table sets forth the composition of the Company's deposits by significant category:

	December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Demand and other noninterest-bearing	\$ 8,856,714	\$ 6,913,214	\$ 5,328,146
Money market	3,525,299	2,780,922	2,322,644
Interest-bearing demand	1,999,407	1,433,083	1,150,437
Savings	1,617,546	1,169,721	882,050
Interest-bearing public funds, other than certificates of deposit	779,146	656,273	301,203
Certificates of deposit, less than \$250,000	249,120	201,805	218,764
Certificates of deposit, \$250,000 or more	160,490	108,935	151,995
Certificates of deposit insured by CD Option of IntraFi Network	35,611	23,105	17,065
Brokered certificates of deposit	—	5,000	12,259
Reciprocal money market accounts	786,046	577,804	300,158
Subtotal	18,009,379	13,869,862	10,684,721
Valuation adjustment resulting from acquisition accounting	736	—	(13)
Total deposits	<u>\$ 18,010,115</u>	<u>\$ 13,869,862</u>	<u>\$ 10,684,708</u>

Deposits totaled \$18.01 billion at December 31, 2021 compared to \$13.87 billion at December 31, 2020. The increase of \$4.14 billion was due to the acquisition of Bank of Commerce, which added \$1.74 billion, and organic growth. Noninterest-bearing deposits, interest-bearing deposits, and reciprocal money market accounts provide a stable source of low cost funding.

At December 31, 2021, broker deposits, other wholesale deposits and reciprocal money market accounts (excluding public funds) totaled \$821.7 million or 4.6% of total deposits compared to \$605.9 million or 4.4% of total deposits, at year end 2020. The reciprocal money market account program is similar to the CD Option of IntraFi Network Deposits program, which is a network that allows participating banks to offer extended FDIC deposit insurance coverage on time deposits. These extended deposit insurance programs are generally available only to existing customers and are not used as a means of generating additional liquidity.

At December 31, 2021, public funds held by the Company totaled \$1.07 billion compared to \$926.8 million at December 31, 2020. Uninsured public funds balances increased from \$862.3 million at December 31, 2020 to \$1.00 billion at December 31, 2021. The Company is required to collateralize 50% of Washington state, 40% of Oregon state and 110% of California state uninsured public funds. For additional information regarding the collateral for these deposits, see Note 4 to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report.

The following table sets forth time deposits in excess of the FDIC insurance limit, which is currently \$250,000, by time remaining until maturity:

	December 31, 2021	
	<i>(dollars in thousands)</i>	
Amounts maturing in:		
Three months or less	\$	88,796
Over 3 through 6 months		19,189
Over 6 through 12 months		17,908
Over 12 months		34,597
Total	<u>\$</u>	<u>160,490</u>

As of December 31, 2021, the Company had approximately \$7.97 billion of uninsured deposits, which is an estimated amount based on the same methodologies and assumptions used for the Bank's regulatory requirements.

The following table sets forth the average amount of and the average rate paid on each significant deposit category:

	Years ended December 31,					
	2021		2020		2019	
	Average Deposits	Average Rate	Average Deposits	Average Rate	Average Deposits	Average Rate
<i>(dollars in thousands)</i>						
Money market	\$ 3,805,723	0.08 %	\$ 3,043,731	0.14 %	\$ 2,591,303	0.41 %
Interest-bearing demand	1,637,531	0.07 %	1,248,975	0.12 %	1,064,145	0.16 %
Savings	1,382,277	0.02 %	1,022,388	0.01 %	892,518	0.02 %
Interest-bearing public funds, other than certificates of deposit	721,090	0.14 %	544,109	0.37 %	440,359	1.65 %
Certificates of deposit	363,902	0.18 %	348,855	0.39 %	395,421	0.62 %
Total interest-bearing deposits	7,910,523	0.08 %	6,208,058	0.15 %	5,383,746	0.41 %
Demand and other noninterest-bearing	7,811,880		6,304,197		5,139,941	
Total average deposits	<u>\$ 15,722,403</u>		<u>\$ 12,512,255</u>		<u>\$ 10,523,687</u>	

Borrowings

Borrowed funds provide an additional source of funding for loan growth. Our borrowed funds consist primarily of FHLB advances, FRB borrowings, securities sold under agreements to repurchase, subordinated debentures, junior subordinated debentures and a revolving line of credit. FHLB advances and FRB borrowings are secured by our loan portfolio and investment securities. Securities sold under agreements to repurchase are secured by investment securities. Subordinated debentures and junior subordinated debentures are unsecured and the revolving line of credit is available, if necessary, and requires the Company to comply with certain covenants including those related to asset quality and capital levels. For additional information on our borrowings, see Notes 12, 13, 14, 15, and 16 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report.

Off-Balance Sheet Arrangements

In the normal course of business, the Company is a party to financial instruments with off-balance sheet risk. These financial instruments include commitments to extend credit and standby letters of credit. These instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount reflected in the Consolidated Balance Sheets.

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 is represented by the contractual notional amount of those instruments. The Company uses the same credit policies in making commitments and conditional obligations as it does for on-balance sheet instruments. The Company evaluates each client’s creditworthiness on a case-by-case basis.

Commitments to extend credit are agreements to lend to a client as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since a portion of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements.

The Company had off-balance sheet loan commitments aggregating \$3.50 billion and \$2.80 billion at December 31, 2021 and 2020, respectively. Standby letters of credit were \$36.0 million at December 31, 2021, an increase from \$29.9 million at December 31, 2020.

Liquidity and Sources of Funds

In general, our primary sources of funds are net income, loan repayments, maturities and principal payments on investment securities, customer deposits, advances from the FHLB, borrowings from the FRB, securities repurchase agreements, subordinated debentures, junior subordinated debentures and a revolving line of credit available, if necessary. These funds are used to make loans, purchase investments, meet deposit withdrawals and maturing liabilities and cover operational expenses. Scheduled loan repayments and client deposits have proven to be a relatively stable source of funds while other deposit inflows and unscheduled loan prepayments are influenced by interest rate levels, competition and general economic conditions. We manage liquidity through monitoring sources and uses of funds on a daily basis and had unused credit lines with the FHLB and the FRB of \$2.18 billion and \$226.0 million, respectively, at December 31, 2021, that are available to us as a supplemental funding source. The holding company’s sources of funds are dividends from its banking subsidiary which are used to fund dividends to shareholders, purchase treasury shares and cover operating expenses.

We are party to many contractual financial obligations, including repayments of deposits and borrowings and payments for operating leases. The table below presents certain future financial obligations of the Company:

	Payments due within time period at December 31, 2021				
	0-12 Months	1-3 Years	4-5 Years	Due after Five Years	Total
	<i>(in thousands)</i>				
Total deposits (1)	\$ 17,911,075	\$ 72,871	\$ 26,167	\$ 2	\$ 18,010,115
FHLB advances (1)	2,017	—	—	5,342	7,359
Operating leases	12,477	20,771	16,011	23,753	73,012
Other borrowings (1)	86,013	—	—	—	86,013
Junior subordinated debentures (1)	—	—	—	10,310	10,310
Subordinated debentures (1)	—	—	10,000	—	10,000
Total	<u>\$ 18,011,582</u>	<u>\$ 93,642</u>	<u>\$ 52,178</u>	<u>\$ 39,407</u>	<u>\$ 18,196,809</u>

(1) In the banking industry, interest-bearing obligations are principally used to fund interest-earning assets. As such, interest charges on contractual obligations were excluded from reported amounts, as the potential cash outflows would have corresponding cash inflows from interest-earning assets.

For additional information regarding our contractual obligations, see Notes 10, 11, 12, 13, 14 and 15 to the Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” of this report.

Capital

Our shareholders’ equity increased to \$2.59 billion at December 31, 2021, from \$2.35 billion at December 31, 2020. Shareholders’ equity was 12.36% and 14.16% of total assets at December 31, 2021 and 2020, respectively. Dividends per common share were \$1.14 and \$1.34, for the years ended December 31, 2021 and 2020, respectively.

Regulatory Capital. In July 2013, the federal bank regulators approved the Capital Rules (as discussed in “Item 1. Business—Supervision and Regulation—Regulatory Capital Requirements”), which implement the Basel III capital framework and various provisions of the Dodd-Frank Act, which were fully phased in as of January 1, 2019.

Basel III also introduced a new capital conservation buffer, composed entirely of CET1, on top of the minimum risk-weighted asset ratios. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions with a ratio of CET1 to risk-weighted assets, Tier 1 to risk-weighted assets or total capital to risk-weighted assets above the minimum but below the capital conservation buffer will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall. The Company and the Bank are required to maintain such additional capital conservation buffer of 2.5% of CET1, effectively resulting in minimum ratios of (i) CET1 to risk-weighted assets of at least 7%, (ii) Tier 1 capital to risk-weighted assets of at least 8.5%, and (iii) total capital to risk-weighted assets of at least 10.5%. The Company and the Bank met all such capital requirements as of December 31, 2021.

In addition, FDIC regulations set forth the qualifications necessary for a bank to be classified as “well-capitalized” (as discussed in “Item 1. Business—Supervision and Regulation—Prompt Corrective Action Framework”), primarily for assignment of FDIC insurance premium rates. Failure to qualify as “well-capitalized” can negatively impact a bank’s ability to expand and to engage in certain activities. The Company and the Bank qualified as “well-capitalized” at December 31, 2021 and 2020.

As part of its response to the impact of COVID-19, the U.S. federal regulatory agencies issued an interim final rule that provided the option to temporarily delay certain effects of CECL on regulatory capital for two years, followed by a three year transition period. The interim final rule allows bank holding companies and banks to delay for two years 100% of the day one impact of adopting CECL and 25% of the cumulative change in the reported allowance for credit losses since adopting CECL. The Company elected to adopt the interim final rule. As a result, certain capital ratios and amounts as of December 31, 2021 exclude the impact of the increased allowance for credit losses related to the adoption of CECL.

The following table sets forth the Company's and the Bank's capital ratios at December 31, 2021 and 2020:

	Company		Columbia Bank	
	2021	2020	2021	2020
CET1 risk-based capital ratio	13.01 %	12.88 %	13.06 %	13.08 %
Tier 1 risk-based capital ratio	13.01 %	12.88 %	13.06 %	13.08 %
Total risk-based capital ratio	14.21 %	14.45 %	14.18 %	14.33 %
Leverage ratio	8.55 %	8.86 %	8.60 %	9.08 %

Stock Repurchase Program

As described in our Annual Report on Form 10-K for the year ended December 31, 2020, on October 28, 2020, our board of directors approved a stock repurchase program to repurchase up to 3.5 million shares, up to a maximum aggregate purchase price of \$100.0 million. This plan expired on December 31, 2021. The Company's intent was to purchase the shares from time to time in the open market, in private transactions, by direct or derivative purchases or other transactions under conditions which allowed such repurchases to be accretive to EPS while maintaining capital ratios that exceed the guidelines for a well-capitalized financial institution. There were no share repurchases under this plan in 2021.

Dividends

The following table sets forth the dividends paid per common share and the dividend payout ratio (dividends paid per common share divided by diluted EPS):

	Years ended December 31,		
	2021	2020	2019
Dividends paid per common share - regular	\$ 1.14	\$ 1.12	\$ 1.12
Dividends paid per common share - special	—	0.22	0.28
Dividends paid per common share	<u>\$ 1.14</u>	<u>\$ 1.34</u>	<u>\$ 1.40</u>
Dividend payout ratio (1)	41 %	62 %	52 %

(1) Dividends paid per common share as a percentage of earnings per diluted common share

Subsequent to year end, on January 19, 2022, the Company declared a quarterly cash dividend of \$0.30 per share payable on February 16, 2022, to shareholders of record at the close of business on February 2, 2022.

Applicable federal and Washington state regulations restrict capital distributions, including dividends, by the Company's banking subsidiary. Such restrictions are tied to the institution's capital levels after giving effect to distributions. Our ability to pay cash dividends is substantially dependent upon receipt of dividends from the Bank. In addition, the payment of cash dividends is subject to Federal regulatory requirements for capital levels and other restrictions. In this regard, current guidance from the Federal Reserve provides, among other things, that dividends per share on the Company's common stock generally should not exceed EPS, measured over the previous four fiscal quarters. Federal Reserve policy also provides that a bank holding company should inform the Federal Reserve reasonably in advance of declaring or paying a dividend that exceeds earnings for the period for which the dividend is being paid or that could result in a material adverse change to the bank holding company's capital structure.

Non-GAAP Financial Measures

In addition to capital ratios defined by banking regulators, the Company considers various measures when evaluating capital utilization and adequacy, including:

- Tangible common equity to tangible assets, and
- Tangible common equity to risk-weighted assets.

The Company believes these measures are useful because they reflect the level of capital available to withstand unexpected market conditions. Additionally, presentation of these measures allows readers to compare certain aspects of the Company's capitalization to other organizations. These ratios differ from capital measures defined by banking regulators principally in that the numerator excludes shareholders' equity associated with preferred securities, the nature and extent of which varies across organizations. Additionally, these measures present capital adequacy inclusive and exclusive of accumulated other comprehensive income. These calculations are intended to complement the capital ratios defined by banking regulators for both absolute and comparative purposes.

Because GAAP in the United States of America does not include capital ratio measures, the Company believes there are no comparable GAAP financial measures to these tangible common equity ratios. The following table reconciles the Company's calculation of these measures to amounts reported under GAAP.

Despite the importance of these measures to the Company, there are no standardized definitions for them and, as a result, the Company's calculations may not be comparable with other organizations. The Company encourages readers to consider its Consolidated Financial Statements in their entirety and not to rely on any single financial measure.

	December 31,	
	2021	2020
	<i>(dollars in thousands)</i>	
Shareholders' equity	\$ 2,588,742	\$ 2,347,607
Goodwill	(823,172)	(765,842)
Other intangible assets, net	(34,647)	(26,734)
Tangible common equity (a)	<u>1,730,923</u>	<u>1,555,031</u>
Total assets	20,945,333	16,584,779
Goodwill	(823,172)	(765,842)
Other intangible assets, net	(34,647)	(26,734)
Tangible assets (b)	<u>\$ 20,087,514</u>	<u>\$ 15,792,203</u>
Risk-weighted assets, determined in accordance with prescribed regulatory requirements (c)	\$ 13,146,341	\$ 10,801,785
Ratios:		
Tangible common equity to tangible assets (a)/(b)	8.62 %	9.85 %
Tangible common equity to risk-weighted assets (a)/(c)	13.17 %	14.40 %

The Company also considers operating net interest margin (tax equivalent) to be a useful measurement as it closely reflects the ongoing operating performance of the Company. Additionally, presentation of the operating net interest margin allows readers to compare certain aspects of the Company's net interest margin to other organizations that may not have had significant acquisitions. Despite the usefulness of the operating net interest margin to the Company, there is no standardized definition for it and, as a result, the Company's calculations may not be comparable with other organizations. The Company encourages readers to consider its Consolidated Financial Statements in their entirety and not to rely on any single financial measure.

The following table reconciles the Company's calculation of the operating net interest margin (tax equivalent) to the net interest margin (tax equivalent) for the periods indicated:

	Years ended December 31,		
	2021	2020	2019
Operating net interest margin non-GAAP reconciliation:			
	<i>(dollars in thousands)</i>		
Net interest income (tax equivalent) (1)	\$ 535,311	\$ 507,574	\$ 501,770
Adjustments to arrive at operating net interest income (tax equivalent):			
Incremental accretion income on acquired loans	(2,811)	(6,154)	(9,086)
Premium amortization on acquired securities	2,752	3,409	6,020
Interest reversals on nonaccrual loans (2)	—	2,000	1,671
Operating net interest income (tax equivalent) (1)	<u>\$ 535,252</u>	<u>\$ 506,829</u>	<u>\$ 500,375</u>
Average interest earning assets	\$ 16,910,818	\$ 13,916,611	\$ 11,837,633
Net interest margin (tax equivalent) (1)	3.17 %	3.65 %	4.24 %
Operating net interest margin (tax equivalent) (1)	3.17 %	3.64 %	4.23 %

(1) Tax-exempt interest income has been adjusted to a tax equivalent basis. The amount of such adjustment was an addition to net interest income of \$7.8 million, \$7.5 million and \$8.4 million for the years ended December 31, 2021, 2020 and 2019, respectively.

(2) Beginning 2021, interest reversals on nonaccrual loans is no longer a component of this non-GAAP measure.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Sensitivity

We are exposed to interest rate risk, which is the risk that changes in prevailing interest rates will adversely affect assets, liabilities, capital, income and expenses at different times or in different amounts. Generally, there are four sources of interest rate risk as described below:

Repricing risk—Repricing risk is the risk of adverse consequences from a change in interest rates that arises because of differences in the timing of when those interest rate changes affect an institution's assets and liabilities.

Basis risk—Basis risk is the risk of adverse consequence resulting from unequal changes in the spread between two or more rates for different instruments with the same maturity.

Yield curve risk—Yield curve risk is the risk of adverse consequence resulting from unequal changes in the spread between two or more rates for different maturities for the same instrument.

Option risk—In banking, option risks are known as borrower options to prepay loans and depositor options to make deposits, withdrawals, and early redemptions. Option risk arises whenever bank products give customers the right, but not the obligation, to alter the quantity or the timing of cash flows. Option risk is also present in the investment portfolio as mortgage-backed securities could prepay or callable bonds could be called.

An Asset/Liability Management Committee is responsible for developing, monitoring and reviewing asset/liability processes, interest rate risk exposures, strategies and tactics and reporting to the board of directors. It is the responsibility of the board of directors to establish policies and interest rate limits and approve these policies and interest rate limits annually. It is the responsibility of management to execute the approved policies, develop and implement risk management strategies and to report to the board of directors on a regular basis. We maintain an asset/liability management policy that provides guidelines for controlling exposure to interest rate risk. The policy guidelines direct management to assess the impact of changes in interest rates upon both earnings and capital. The guidelines establish limits for interest rate risk sensitivity.

Interest Rate Risk Sensitivity

We use a number of measures are used to monitor and manage interest rate risk, including income simulations and interest sensitivity (gap) analysis. An income simulation model is the primary tool used to assess the direction and magnitude of changes in net interest income resulting from changes in interest rates. Basic assumptions in the model include prepayment speeds on mortgage-related assets, cash flows and maturities of other investment securities, loan and deposit volumes and pricing. These assumptions are inherently subjective and may not be realized and, as a result, actual results will differ from our projections. In addition, variances in the timing, magnitude and frequency of interest rate changes, overall market conditions including volumes and pricing, changes in management strategies, among other factors will also result in variances between the projected and actual results.

The following table summarizes the expected impact on net interest income over a one or two year period if interest rates gradually increased or decreased during the first year, based on the results of the simulation model as of December 31, 2021:

Change in basis points (bps)	Year one		Year two	
	Change in net interest income	% Change in net interest income	Change in net interest income	% Change in net interest income
<i>(dollars in thousands)</i>				
+200	\$ 17,124	3.18 %	\$ 70,922	13.30 %
-100	\$ (7,601)	(1.41)%	\$ (30,176)	(5.66)%

The following table summarizes the expected impact on net interest income over a one or two year period if interest rates instantaneously increased or decreased, based on the results of the simulation model as of December 31, 2021:

Change in basis points (bps)	Year one		Year two	
	Change in net interest income	% Change in net interest income	Change in net interest income	% Change in net interest income
<i>(dollars in thousands)</i>				
+200	\$ 47,140	8.74 %	\$ 91,400	17.15 %
-100	\$ (20,690)	(3.84)%	\$ (43,396)	(8.14)%

The projections are based on the current interest rate environment and we assume our balance sheet remains constant during the next two years. Short-term market interest rates are near historical lows. Loan interest rate indexes such as Prime, LIBOR and SOFR are near historical lows. Since we do not assume negative interest rates, the downward repricing of these loans is more limited than during a higher interest rate environment. Our ability to reprice deposits downward is also limited given our low cost of funds.

The smaller change in net interest income in the gradual scenarios versus the shock scenarios is due to the ramp up period of the interest rate scenario. Growth in interest income in the gradual and shock rising rate scenarios is constrained by floating rate loans where the floor rate exceeds the fully indexed rate. In year two of the rising rate scenarios, net interest income increases as yields on new loan production and investment security purchases rise faster than funding costs. The decrease in net interest income in the falling rate scenario is due to loan production and investment security purchases at rates lower than the existing portfolios combined with our inability to materially lower funding costs.

Net interest income sensitivity excludes the amortization of premiums, discounts and deferred fees on the existing loan portfolio although the amortization of the collar is included in loan interest income.

On January 23, 2019, the Company entered into an interest rate collar derivative transaction with a \$500.0 million notional based on 1-month LIBOR. In October 2020, the collar was terminated and resulted in a \$34.4 million realized gain that was recorded in accumulated other comprehensive income, net of deferred income taxes. The gain will amortize into interest income through February 2024 which is in line with the initial term of the interest rate collar. The gain will be amortized in this manner as long as the cash flows pertaining to the hedged item are expected to occur.

The analysis of an institution's interest rate gap (the difference between the repricing of interest-earning assets and interest-bearing liabilities during a given period of time) is one standard tool for the measurement of the exposure to interest rate risk. We believe that because interest rate gap analysis does not address all factors that can affect earnings performance, it should be used in conjunction with other methods of evaluating interest rate risk.

The table on the following page sets forth the estimated maturity or repricing, and the resulting interest rate gap of our interest-earning assets and interest-bearing liabilities at December 31, 2021. The amounts in the table are derived from our internal data and are based upon SEC reporting formats. Therefore, they may not be consistent with financial information appearing elsewhere herein that has been prepared in accordance with accounting principles generally accepted in the United States.

The estimates for net interest income sensitivity and interest rate gap could be significantly affected by external factors such as changes in prepayment assumptions, early withdrawal of deposits and competition. For example, although certain assets and liabilities may have similar maturities or periods to repricing, they may react in different degrees to changes in market interest rates. Also, the interest rates on certain types of assets and liabilities may fluctuate in advance of changes in market interest rates, while other types may lag changes in market interest rates.

Additionally, certain assets, such as adjustable-rate mortgages, have features that restrict changes in the interest rates of such assets both on a short-term basis and over the lives of such assets. Further, in the event of a change in market interest rates, prepayment and early withdrawal levels could deviate significantly from those assumed in calculating the tables. Finally, the ability of many borrowers to service their adjustable-rate debt may decrease in the event of a substantial increase in market interest rates.

	Estimated Maturity or Repricing				
December 31, 2021	0-3 months	4-12 months	Over 1 year through 5 years	Due after 5 years	Total
	(dollars in thousands)				
Interest-Earning Assets					
Interest-earning deposits	\$ 671,300	\$ —	\$ —	\$ —	\$ 671,300
Loans, net of deferred fees	3,500,046	1,277,480	4,114,190	1,750,221	10,641,937
Loans held for sale	9,774	—	—	—	9,774
Investments	276,338	637,055	3,251,533	3,918,105	8,083,031
Total interest-earning assets	<u>\$ 4,457,458</u>	<u>\$ 1,914,535</u>	<u>\$ 7,365,723</u>	<u>\$ 5,668,326</u>	19,406,042
ACL					(155,578)
Cash and due from banks					153,414
Premises and equipment, net					172,144
Other assets					1,369,311
Total assets					<u>\$ 20,945,333</u>
Interest-Bearing Liabilities					
Interest-bearing non-maturity deposits	\$ 8,707,444	\$ —	\$ —	\$ —	\$ 8,707,444
Time deposits	174,830	172,086	99,038	3	445,957
Subordinated debentures	10,000	—	—	—	10,000
Borrowings	96,323	2,017	—	5,342	103,682
Total interest-bearing liabilities	<u>\$ 8,988,597</u>	<u>\$ 174,103</u>	<u>\$ 99,038</u>	<u>\$ 5,345</u>	9,267,083
Other liabilities					9,089,508
Total liabilities					18,356,591
Shareholders' equity					2,588,742
Total liabilities and shareholders' equity					<u>\$ 20,945,333</u>
Interest-bearing liabilities as a percent of total interest-earning assets	46.32 %	0.90 %	0.51 %	0.03 %	
Rate sensitivity gap	\$(4,531,139)	\$ 1,740,432	\$ 7,266,685	\$ 5,662,981	
Cumulative rate sensitivity gap	\$(4,531,139)	\$(2,790,707)	\$ 4,475,978	\$10,138,959	
Rate sensitivity gap as a percentage of interest-earning assets	(23.35)%	8.97 %	37.45 %	29.18 %	
Cumulative rate sensitivity gap as a percentage of interest-earning assets	(23.35)%	(14.38)%	23.06 %	52.25 %	

Impact of Inflation and Changing Prices

The impact of inflation on our operations is increased operating costs. Unlike most industrial companies, virtually all the assets and liabilities of a financial institution are monetary in nature. As a result, interest rates generally have a more significant impact on a financial institution's performance than the effect of general levels of inflation. Although interest rates do not necessarily move in the same direction or to the same extent as the prices of goods and services, increases in inflation generally have resulted in increased interest rates.

LIBOR Transition

Management has discontinued use of LIBOR in new contracts, including loans, investment securities and interest rate derivatives. Current actions include the implementation of substitute language for legacy LIBOR-based loans to transition to SOFR before June 2023 when LIBOR will no longer be an option for the Company to use. This is likely to require some additional costs and litigation risk may rise with contract renewals, if needed. We are in discussions with our counterparties and tracking industry developments to ensure a smooth transition for clients and competitive loan pricing.

Please refer to Note 17 to the Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" of this report for further information regarding the interest rate derivatives. As the FASB and the IRS have proposed hedge accounting and taxation relief with regards to the transition, the Company does not anticipate any material impact to our Consolidated Financial Statements as a result of the transition away from LIBOR.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Columbia Banking System, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Columbia Banking System, Inc. and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 25, 2022, expressed an unqualified opinion on the Company's internal control over financial reporting.

Changes in Accounting Principle

As discussed in Note 1 to the financial statements, the Company changed its method for accounting for credit losses effective January 1, 2020, due to the adoption of Financial Accounting Standards Board (FASB) Accounting Standards Codification No. 326, Financial Instruments - Credit Losses (ASC 326). The Company adopted the new credit loss standard using the modified retrospective method provided in Accounting Standards Update No. 2016-13 such that prior period amounts are not adjusted and continue to be reported in accordance with previously applicable generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the 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. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the Company's Audit Committee and that (1) relates 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 matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Allowance for Credit Losses - Refer to Notes 1 and 6 to the financial statements (also see change in accounting principle explanatory paragraph above)

Critical Audit Matter Description

The Company estimates its allowance for credit losses (ACL) using information derived from both internal and external sources, relating to past events, current conditions, and reasonable and supportable forecasts. Specifically, the Company measures reserves on a collective (pool) basis for all loan classes with similar risk characteristics, using a quantitative discounted cash flows model that is then qualitatively adjusted for large loan concentrations, policy exemptions granted, and other factors. The quantitative model utilizes anticipated period cash flows determined on a loan-level basis. The anticipated cash flows take into account contractual principal and interest payments, anticipated segment level prepayments, probability of defaults and historical loss given defaults. The majority of the loan classes utilize regression models to calculate probability of defaults, in which macroeconomic factors are correlated to historical quarterly defaults. The Company utilizes an 18-month forecast for the macroeconomic factors, after which the probability of default reverts to its historical mean using a straight-line basis. As of December 31, 2021, the ACL was \$155.6 million.

Significant management judgments are required in determining whether, and to what extent, qualitative adjustments for each portfolio loan class are required and the selection of the reasonable and supportable forecasts of future economic conditions. The subjectivity of the judgments made in selecting qualitative adjustments and the forecasts for the macroeconomic factors remains elevated due to ongoing uncertainty as to the future impacts of the Novel Coronavirus (“COVID-19”).

Given the size of the loan portfolio and the subjective nature of estimating the ACL, particularly the estimate of qualitative adjustments and selection of forecasts for the macroeconomic factors, auditing the ACL involved a high degree of auditor judgement requiring significant effort and included the need to involve credit specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the ACL for the loan portfolio, included the following, among others:

- We tested the design and operating effectiveness of controls over the execution and monitoring of the quantitative model, selection of the forecast, determination of qualitative adjustments to the modeled reserves and the overall calculation and disclosure of the ACL.
- We evaluated the reasonableness of the quantitative discounted cash flows model and related assumptions, assessed the reasonableness of the design and logic of the model, tested the accuracy of the data input into the model, and tested the mathematical accuracy of the model’s calculations.
- We evaluated the reasonableness of management’s assessment, determination, and application of the qualitative framework used to determine adjustments to the modeled reserves and tested the mathematical accuracy of the qualitative adjustments.
- We used credit specialists to assist us in evaluating the quantitative discounted cash flows model and the framework for certain qualitative adjustments to that model.
- We evaluated the reasonableness of the Company’s macroeconomic assumptions and judgments in estimating future credit losses, including the selection of forecasted macroeconomic assumptions and considerations of alternative forecasted macroeconomic scenarios. This included obtaining independent macroeconomic forecasts and evaluating any contradictory evidence.
- We tested the mathematical accuracy of the macroeconomic factors selected and the impact on the probability of default calculations, including evaluating the magnitude of change in the quantitative allowance attributable to changes in the selected macroeconomic forecasts.

/s/ Deloitte & Touche LLP
February 25, 2022
Seattle, Washington

We have served as the Company’s auditor since 1997.

COLUMBIA BANKING SYSTEM, INC.
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2021	2020
	(in thousands)	
ASSETS		
Cash and due from banks	\$ 153,414	\$ 218,899
Interest-earning deposits with banks	671,300	434,867
Total cash and cash equivalents	824,714	653,766
Debt securities available for sale at fair value (amortized cost of \$5,898,041 and \$4,997,529, respectively)	5,910,999	5,210,134
Debt securities held to maturity at amortized cost (fair value of \$2,122,606 and \$—, respectively)	2,148,327	—
Equity securities	13,425	13,425
FHLB stock at cost	10,280	10,280
Loans held for sale	9,774	26,481
Loans, net of unearned income	10,641,937	9,427,660
Less: ACL	155,578	149,140
Loans, net	10,486,359	9,278,520
Interest receivable	56,019	54,831
Premises and equipment, net	172,144	162,059
OREO	381	553
Goodwill	823,172	765,842
Other intangible assets, net	34,647	26,734
Other assets	455,092	382,154
Total assets	\$ 20,945,333	\$ 16,584,779

LIABILITIES AND SHAREHOLDERS' EQUITY

Deposits:		
Noninterest-bearing	\$ 8,856,714	\$ 6,913,214
Interest-bearing	9,153,401	6,956,648
Total deposits	18,010,115	13,869,862
FHLB advances	7,359	7,414
Securities sold under agreements to repurchase	86,013	73,859
Subordinated debentures	10,000	35,092
Junior subordinated debentures	10,310	—
Other liabilities	232,794	250,945
Total liabilities	18,356,591	14,237,172
Commitments and contingent liabilities (Note 19)		
Shareholders' equity:		

	December 31,			
	2021	2020		
	(in thousands)			
Preferred stock (no par value)				
Authorized shares	2,000	2,000		
Common stock (no par value)				
Authorized shares	115,000	115,000		
Issued	80,695	73,782	1,930,187	1,660,998
Outstanding	78,511	71,598		
Retained earnings			694,227	575,248
Accumulated other comprehensive income			35,162	182,195
Treasury stock at cost	2,184	2,184	(70,834)	(70,834)
Total shareholders' equity			<u>2,588,742</u>	<u>2,347,607</u>
Total liabilities and shareholders' equity			<u>\$ 20,945,333</u>	<u>\$ 16,584,779</u>

See accompanying Notes to Consolidated Financial Statements.

COLUMBIA BANKING SYSTEM, INC.
CONSOLIDATED STATEMENTS OF INCOME

	Years ended December 31,		
	2021	2020	2019
	<i>(in thousands except per share amounts)</i>		
Interest Income			
Loans	\$ 415,770	\$ 426,003	\$ 448,041
Taxable securities	107,594	81,578	69,864
Tax-exempt securities	11,746	9,567	10,735
Deposits in banks	955	661	1,312
Total interest income	536,065	517,809	529,952
Interest Expense			
Deposits	6,186	9,367	22,146
FHLB advances and FRB borrowings	291	6,264	11,861
Subordinated debentures	1,932	1,871	1,871
Other borrowings	137	196	669
Total interest expense	8,546	17,698	36,547
Net Interest Income	527,519	500,111	493,405
Provision for credit losses	4,800	77,700	3,493
Net interest income after provision for credit losses	522,719	422,411	489,912
Noninterest Income			
Deposit account and treasury management fees	27,107	27,019	35,695
Card revenue	18,503	13,928	15,198
Financial services and trust revenue	15,753	12,830	12,799
Loan revenue	22,044	24,802	13,465
Bank owned life insurance	6,533	6,418	6,294
Investment securities gains, net	314	16,710	2,132
Other	3,840	2,793	11,598
Total noninterest income	94,094	104,500	97,181
Noninterest Expense			
Compensation and employee benefits	224,034	209,722	212,867
Occupancy	37,815	36,013	35,176
Data processing and software	33,498	29,449	27,095
Legal and professional fees	18,910	12,158	21,645
Amortization of intangibles	7,987	8,724	10,479
B&O taxes	5,903	4,970	5,846
Advertising and promotion	3,383	4,466	4,925
Regulatory premiums	4,912	2,956	1,920
Net cost (benefit) of operation of OREO	66	(315)	(692)
Other	23,796	26,376	26,221
Total noninterest expense	360,304	334,519	345,482
Income before income taxes	256,509	192,392	241,611
Income tax provision	53,689	38,148	47,160
Net Income	<u>\$ 202,820</u>	<u>\$ 154,244</u>	<u>\$ 194,451</u>
Earnings Per Common Share			
Basic	\$ 2.79	\$ 2.17	\$ 2.68
Diluted	\$ 2.78	\$ 2.17	\$ 2.68
Weighted average number of common shares outstanding	72,683	70,835	71,999
Weighted average number of diluted common shares outstanding	72,873	70,880	72,032

See accompanying Notes to Consolidated Financial Statements.

COLUMBIA BANKING SYSTEM, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Net income	\$ 202,820	\$ 154,244	\$ 194,451
Other comprehensive income (loss), net of tax:			
Unrealized gain (loss) from securities:			
Net unrealized holding gain (loss) from available for sale debt securities arising during the period, net of tax of \$41,647, \$(39,489) and \$(20,540)	(137,482)	130,355	67,802
Reclassification adjustment of net gain from available for sale debt securities arising during the period, net of tax of \$73, \$66 and \$496	(242)	(219)	(1,636)
Amortization of net unrealized gain for the reclassification of available for sale securities to held to maturity, net of tax of \$702, \$— and \$—	(2,316)	—	—
Net unrealized gain (loss) from available for sale debt securities, net of reclassification adjustment	(140,040)	130,136	66,166
Pension plan liability adjustment:			
Unrecognized net actuarial gain (loss) and plan amendments during the period, net of tax of \$(170), \$659 and \$619	562	(2,177)	(2,042)
Less: amortization of unrecognized net actuarial losses included in net periodic pension cost, net of tax of \$(139), \$(96) and \$(74)	459	318	245
Pension plan liability adjustment, net	1,021	(1,859)	(1,797)
Unrealized gain from cash flow hedging instruments:			
Net unrealized gain in cash flow hedging instruments arising during the period, net of tax of \$—, \$(6,062) and \$(3,562)	—	20,012	11,760
Reclassification adjustment for net gain in cash flow hedging instruments included in income, net of tax of \$2,427, \$1,957 and \$138	(8,014)	(6,461)	(457)
Net unrealized gain (loss) from cash flow hedging instruments, net of reclassification adjustment	(8,014)	13,551	11,303
Other comprehensive income (loss)	(147,033)	141,828	75,672
Total comprehensive income	<u>\$ 55,787</u>	<u>\$ 296,072</u>	<u>\$ 270,123</u>

See accompanying Notes to Consolidated Financial Statements.

COLUMBIA BANKING SYSTEM, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Common Stock			Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Shareholders' Equity
	Number of Shares	Amount	Retained Earnings			
	(in thousands, except per share amounts)					
Balance at January 1, 2019	73,249	\$ 1,642,246	\$ 426,708	\$ (35,305)	\$ —	\$ 2,033,649
Adjustment to opening retained earnings pursuant to adoption of ASU 2016-02	—	—	782	—	—	782
Net income	—	—	194,451	—	—	194,451
Other comprehensive income	—	—	—	75,672	—	75,672
Issuance of common stock - employee stock purchase plan	59	2,025	—	—	—	2,025
Issuance of common stock - RSAs and RSUs, net of canceled awards	343	9,271	—	—	—	9,271
Activity in deferred compensation plan	—	3	—	—	—	3
Purchase and retirement of common stock	(74)	(2,792)	—	—	—	(2,792)
Cash dividends declared on common stock (\$1.40 per share)	—	—	(102,265)	—	—	(102,265)
Purchase of treasury stock	(1,453)	—	—	—	(50,834)	(50,834)
Balance at December 31, 2019	72,124	\$ 1,650,753	\$ 519,676	\$ 40,367	\$ (50,834)	\$ 2,159,962
Adjustment to opening retained earnings pursuant to adoption of ASU 2016-13	—	—	(2,457)	—	—	(2,457)
Net income	—	—	154,244	—	—	154,244
Other comprehensive income	—	—	—	141,828	—	141,828
Issuance of common stock - employee stock purchase plan	65	2,028	—	—	—	2,028
Issuance of common stock - RSAs and RSUs, net of canceled awards	208	10,737	—	—	—	10,737
Activity in deferred compensation plan	—	2	—	—	—	2
Purchase and retirement of common stock	(68)	(2,522)	—	—	—	(2,522)
Cash dividends declared on common stock (\$1.34 per share)	—	—	(96,215)	—	—	(96,215)
Purchase of treasury stock	(731)	—	—	—	(20,000)	(20,000)
Balance at December 31, 2020	71,598	\$ 1,660,998	\$ 575,248	\$ 182,195	\$ (70,834)	\$ 2,347,607
Net income	—	—	202,820	—	—	202,820
Other comprehensive loss	—	—	—	(147,033)	—	(147,033)
Issuance of common stock - acquisition related	6,740	256,061	—	—	—	256,061
Issuance of common stock - employee stock purchase plan	74	2,350	—	—	—	2,350
Issuance of common stock - RSAs and RSUs, net of canceled awards	190	14,926	—	—	—	14,926
Activity in deferred compensation plan	—	(8)	—	—	—	(8)
Purchase and retirement of common stock	(91)	(4,140)	—	—	—	(4,140)
Cash dividends declared on common stock (\$1.14 per share)	—	—	(83,841)	—	—	(83,841)
Balance at December 31, 2021	78,511	\$ 1,930,187	\$ 694,227	\$ 35,162	\$ (70,834)	\$ 2,588,742

See accompanying Notes to Consolidated Financial Statements.

COLUMBIA BANKING SYSTEM, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Cash Flows From Operating Activities			
Net income	\$ 202,820	\$ 154,244	\$ 194,451
Adjustments to reconcile net income to net cash provided by operating activities			
Provision for credit losses	4,800	77,700	3,493
Stock-based compensation expense	14,926	10,737	9,271
Depreciation, amortization and accretion	23,168	14,893	34,213
Investment securities gain, net	(314)	(16,710)	(2,132)
Net realized gain on sale of premises and equipment, loans held for investment and OPPO	(500)	(1,334)	(7,317)
Net realized loss (gain) on sale and valuation adjustments of OREO	40	(34)	(602)
Gain on bank owned life insurance death benefit	(344)	—	(3,051)
Originations of loans held for sale	(336,455)	(491,385)	(210,484)
Proceeds from sales of loans held for sale	352,823	483,130	196,615
Change in fair value of loans held for sale	339	(508)	—
Deferred income tax expense (benefit)	(6,629)	(13,768)	330
Net change in:			
Interest receivable	4,049	(7,992)	(1,516)
Interest payable	62	(933)	632
Other assets	6,815	(48,539)	(23,464)
Other liabilities	(30,535)	32,791	14,308
Net cash provided by operating activities	235,065	192,292	204,747
Cash Flows From Investing Activities			
Loans originated, net of principal collected	174,463	(619,543)	(291,857)
Investment in low income housing tax credit partnerships	(1,408)	—	—
Purchases of:			
Debt securities available for sale	(3,128,233)	(2,118,667)	(1,196,895)
Debt securities held to maturity	(257,503)	—	—
Loans held for investment	(279,734)	(50,035)	(57,075)
Premises and equipment	(6,125)	(8,720)	(8,447)
FHLB stock	(1)	(53,240)	(273,800)
Proceeds from:			
Sales of debt securities available for sale	89,219	194,697	259,554
Sales of equity securities	—	3,000	—
Principal repayments and maturities of securities available for sale	764,253	603,129	428,025
Principal repayments and maturities of debt securities held to maturity	107,578	—	—
Sales of premises and equipment and loans held for investment	15,880	2,948	8,634
Redemption of FHLB stock	7,464	91,080	251,640
Sales of OREO and OPPO	132	1,074	6,506
Bank owned life insurance death benefit	671	1,050	8,265
Termination of cash flow hedging instrument	—	34,442	—
Net cash received in business combinations	154,984	—	—
Net cash used in investing activities	(2,358,360)	(1,918,785)	(865,450)

COLUMBIA BANKING SYSTEM, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS, continued

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Cash Flows From Financing Activities			
Net increase in deposits	2,402,669	3,185,167	226,958
Net increase in sweep repurchase agreements	12,154	9,422	3,343
Proceeds from:			
Employee stock purchase plan	2,350	2,028	2,025
FHLB advances	30	1,331,000	6,845,000
FRB borrowings	40	222,010	36,000
Other borrowings	—	9,222	100
Payments for:			
FHLB advances	(30)	(2,277,000)	(6,291,000)
FRB borrowings	(40)	(222,010)	(36,000)
Other borrowings	—	(9,222)	(100)
Common stock dividends	(83,790)	(95,509)	(101,911)
Repayment of subordinated debentures	(35,000)	—	—
Purchase of treasury stock	—	(20,000)	(50,834)
Purchase and retirement of common stock	(4,140)	(2,522)	(2,792)
Net cash provided by financing activities	2,294,243	2,132,586	630,789
Increase (decrease) in cash and cash equivalents	170,948	406,093	(29,914)
Cash and cash equivalents at beginning of period	653,766	247,673	277,587
Cash and cash equivalents at end of period	<u>\$ 824,714</u>	<u>\$ 653,766</u>	<u>\$ 247,673</u>
Supplemental Information:			
Interest paid	\$ 8,484	\$ 18,631	\$ 35,916
Income taxes paid, net of refunds	\$ 60,562	\$ 43,287	\$ 47,375
Non-cash investing and financing activities:			
Transfer of debt securities available for sale to debt securities held to maturity	\$ 2,012,123	\$ —	\$ —
Loans transferred to OREO	\$ —	\$ 1,033	\$ 386
Common stock issued in connection with acquisition	\$ 256,061	\$ —	\$ —
Premises and equipment expenditures incurred but not yet paid	\$ 63	\$ 302	\$ 451
Change in dividends payable on unvested shares included in other liabilities	\$ 51	\$ 706	\$ 354

See accompanying Notes to Consolidated Financial Statements.

COLUMBIA BANKING SYSTEM, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
For the Years Ended December 31, 2021, 2020 and 2019

1. Summary of Significant Accounting Policies and Reclassifications

Organization

Columbia Banking System, Inc. (the “Corporation,” “we,” “our,” “Columbia” or the “Company”) is the holding company for Columbia State Bank (“Columbia Bank” or the “Bank”) and Columbia Trust Company (“Columbia Trust”). The Bank provides a full range of financial services through 153 branch locations, including 68 in the State of Washington, 59 in Oregon, 15 in Idaho and 11 in California. Columbia Trust provides fiduciary, agency, trust and related services, and life insurance products. Because the Bank comprises substantially all of the business of the Corporation, references to the “Company” mean the Corporation, the Bank and Columbia Trust together. The Corporation is approved as a bank holding company pursuant to the Gramm-Leach-Bliley Act of 1999.

Basis of Presentation

The Company’s accounting and reporting policies conform to GAAP and practices in the financial services industry. To prepare the financial statements in conformity with GAAP, management must make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements, and income and expenses during the reporting period. Circumstances and events that differ significantly from those underlying our estimates and assumptions could cause actual financial results to differ from our estimates. The most significant estimates included in the financial statements relate to the ACL, business combinations and goodwill impairment.

The Company has applied its accounting policies and estimation methods consistently in all periods presented in these financial statements (to the periods in which they applied), with the exception of our allowance for credit losses accounting under ASC 326, which was adopted prospectively, beginning in 2020 and our lease accounting under ASC 842, which was adopted prospectively, beginning in 2019.

Consolidation

The Consolidated Financial Statements of the Company include the accounts of the Corporation and its subsidiaries, including the Bank and Columbia Trust. Intercompany balances and transactions have been eliminated in consolidation.

Cash and cash equivalents

Cash and cash equivalents include cash and due from banks, and interest-bearing balances due from correspondent banks and the FRB. Cash equivalents have a maturity of 90 days or less at the time of purchase.

Securities

Debt securities are classified based on management’s intention on the date of purchase. The Company has debt securities that are classified as AFS and are presented at fair value and debt securities classified as HTM that are presented at amortized cost. Realized gains or losses on sales of debt securities AFS, determined on the basis of the cost of specific securities sold, are included in earnings. Unrealized gains or losses on debt securities AFS are excluded from net income but are included in other comprehensive income as a separate component of shareholders’ equity, net of tax. Purchase premiums or discounts on debt securities AFS are amortized or accreted into income using the interest method over the terms of the individual securities.

The Company performs a quarterly assessment to determine whether a decline in fair value below amortized cost exists. Amortized cost includes adjustments made to the cost of an investment for accretion, amortization, collection of cash and previous credit losses recognized in earnings.

When the fair value of an AFS debt security falls below the amortized cost basis, it is evaluated to determine if any of the decline in value is attributable to credit loss. Decreases in fair value attributable to credit loss would be recorded directly to earnings with a corresponding allowance for credit losses, limited by the amount that the fair value is less than the amortized cost basis. If the credit quality subsequently improves the allowance would be reversed up to a maximum of the previously recorded credit losses. If the Company intends to sell an impaired AFS debt security, or if it is more likely than not that the Company will be required to sell the security prior to recovering the amortized cost basis, the entire fair value adjustment would be immediately recognized in earnings with no corresponding allowance for credit losses.

Our equity securities currently consist of Visa Class B restricted stock which do not have readily determinable fair values. These securities are accounted for at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer. Any adjustments to the carrying value of these investments are recorded in Investment securities gains (losses), net in the Consolidated Statements of Income.

Federal Home Loan Bank Stock

The Company holds shares of Class B stock issued by the FHLB, which has been designated as FHLB membership stock or FHLB activity based stock in accordance with the capital plan of the FHLB. Membership stock is stock we are required to purchase and hold as a condition of membership in the FHLB. The Company's membership stock purchase requirement is measured as a percentage of our year end assets, subject to a \$10 million cap. Class B stock may be redeemed, subject to certain limitations, on five years' written notice to the FHLB. Activity based stock is stock we are required to purchase and hold in order to obtain an advance or participate in FHLB mortgage programs. The Company's activity based stock purchase requirement is measured as a percentage of our advance proceeds. Our FHLB stock is carried at par value because the shares are issued, transferred, redeemed, and repurchased by the FHLB at a par value of \$100. The FHLB stock is subject to recoverability testing per the Financial Services-Depository and Lending topic of the FASB ASC.

Loans held for sale

One-to-four family residential real estate loans originated with the intent to be sold in the secondary market are considered held for sale. One-to-four family residential real estate loans under best efforts delivery commitments are carried at the lower of amortized cost or fair value. There are no economic hedges on these loans. Due to the short period of time between the origination and sale of these loans, the carrying amount of these loans approximates fair value. For one-to-four family residential real estate loans under mandatory delivery commitments, the Company has elected to account for these loans at fair value. The use of the fair value option allows the change in the fair value of the loans to more effectively offset the change in the fair value of derivative instruments that are used as economic hedges for these 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 a gain or loss on the sale of loans when the sales criteria for derecognition are met. See Note 22. "Fair Value Accounting and Measurement" for additional information on loans held for sale.

Loans

Loans are generally carried at the unpaid principal balance, net of purchase premiums, purchase discounts and net deferred loan fees. Net deferred loan fees include nonrefundable loan origination fees less direct loan origination costs. Net deferred loan fees, purchase premiums and purchase discounts are amortized into interest income using either the interest method or straight-line method over the terms of the loans, adjusted for actual prepayments. The interest method is used for all loans except revolving loans, for which the straight-line method is used. Interest income is accrued as earned. Fees related to lending activities, other than the origination or purchase of loans, are recognized as noninterest income during the period the related services are performed.

Nonaccrual loans—Loans are placed on nonaccrual status when a loan becomes contractually past due 90 days with respect to interest or principal unless the loan is both well secured and in the process of collection, or if full collection of interest or principal becomes uncertain. When a loan is placed on nonaccrual status, any accrued and unpaid interest receivable is reversed and the amortization of net deferred loan fees, premiums and discounts ceases. The interest payments received on nonaccrual loans are generally accounted for on the cost-recovery method whereby the interest payment is applied to the principal balances. Loans may be returned to accrual status when improvements in credit quality eliminate the doubt as to the full collectability of both interest and principal and a period of sustained performance has occurred.

Restructured loans—A loan is classified as a TDR when a borrower is experiencing financial difficulties that lead to a restructuring of the loan, and the Company grants concessions to the borrower in the restructuring that it would not otherwise consider. These concessions may include interest rate reductions, principal forgiveness, extension of maturity date and other actions intended to minimize potential losses. Generally, a nonaccrual loan that is restructured remains on nonaccrual status for a period of six months to demonstrate that the borrower can meet the restructured terms. If the borrower's performance under the new terms is not reasonably assured, the loan remains classified as a nonaccrual loan.

Loan modifications in response to COVID-19—The Company worked with its borrowers to provide loan payment deferrals as a result of the COVID-19 pandemic. Pursuant to the CARES Act and a joint agency statement issued by the federal banking agencies, these loan modifications are not accounted for as TDRs. Payment deferral terms generally range from 90 to 180 days and some borrowers have been granted multiple deferrals.

Unfunded loan commitments—Unfunded commitments are generally related to providing credit facilities to clients of the Bank and are not actively traded financial instruments. These unfunded commitments are disclosed as financial instruments with off-balance sheet risk in Note 19, "Commitments and Contingent Liabilities."

Allowance for Credit Losses

The allowance for credit losses under ASC 326 is an accounting estimate of expected losses over the contractual life of assets carried at amortized cost within the Company's loan portfolio at the balance sheet date. Financial assets (or group of financial assets) measured at amortized cost must be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset to present the net carrying value at the amount expected to be collected on the financial asset.

The quantitative allowance is calculated using a DCF approach with a probability of default methodology. The probability of default is an assumption derived from regression models which determines the relationship between historical defaults and certain economic variables. The Company determines a reasonable and supportable forecast and applies that forecast to the regression model to determine defaults over the forecast period. The Company leverages economic projections from an independent third-party provider on a quarterly basis that are vetted by the Company through quantifiable analysis and comparisons are evaluated by a committee before a final scenario is determined for the 18 month reasonable and supportable forecast period used by the Company. Following the forecast period, the economic variables used to calculate the probability of default reverts to its historical mean using a straight-line basis constructed on each macroeconomic factor's absolute historical quarterly change at a constant rate. Other assumptions relevant to the discounted cash flow model to derive the quantitative allowance include the loss given default, which is the estimate of loss for a defaulted loan, and the discount rate applied to future cash flows. The DCF model calculates the net present value of each loan using both the contractual and expected cash flows, respectively.

In addition to the quantitative portion of the allowance for credit losses, the Company also considers the effects of the following qualitative factors in its calculation of expected losses in the loan portfolio:

- Economic and business conditions;
- Concentration of credit;
- Lending management and staff;
- Lending policies and procedures;
- Loss and recovery trends;
- Nature and volume of the portfolio;
- Trends in problem loans, loan delinquencies and nonaccrual loans;
- Quality of internal loan review; and
- Other external factors such as the effect of economic stimulus and loan modification programs.

The qualitative factor methodology is based on quantitative metrics, but also includes a high degree of subjectivity and changes in any of the metrics could have a significant impact on our calculation of the allowance.

Loans for which repayment is expected to be provided substantially through the operation or sale of collateral are considered collateral-dependent. The allowance for credit losses for collateral-dependent loans is measured on the basis of the fair value of the collateral when foreclosure is probable.

Unfunded Commitments and Letters of Credit—The estimate of expected credit losses under the CECL methodology is based on relevant information about past events, current conditions and reasonable and supportable forecasts that affect the collectability of the reported amounts. Expected credit losses are calculated based on the likelihood that funding will occur and an estimate of the amount that will be funded using recent utilization rates, current utilization and the Company’s quantitative ACL rate. The allowance for unfunded commitments is included in “Other liabilities” on the Consolidated Balance Sheets, with changes to the balance charged against noninterest expense.

Premises and Equipment

Land, buildings, leasehold improvements and equipment are stated at cost less accumulated depreciation and amortization. Gains or losses on dispositions are reflected in current operations. Expenditures for improvements and major renewals are capitalized, and ordinary maintenance, repairs and small purchases are charged to “Occupancy” expense in the Consolidated Statements of Income. Depreciation and amortization are computed based on the straight-line method over the estimated useful lives of the various classes of assets.

The ranges of useful lives for the principal classes of assets are as follows:

Buildings and building improvements	5 to 39 years
Leasehold improvements	Term of lease or useful life, whichever is shorter
Furniture, fixtures and equipment	3 to 7 years
Vehicles	5 years
Computer software	3 to 5 years

Software

Capitalized software is stated at cost, less accumulated amortization. Amortization is computed on a straight-line basis and charged to expense over the estimated useful life of the software, which is generally three years. Capitalized software is included in “Premises and equipment, net” in the Consolidated Balance Sheets.

Implementation costs incurred for software that is part of a hosting arrangement are capitalized in “Other assets” in the Consolidated Balance Sheets and amortized on a straight-line basis over the life of the contract.

Other Real Estate Owned

OREO is composed of real estate acquired by the Company through either foreclosure or deed in lieu of foreclosure in satisfaction of debt. At foreclosure, OREO is recorded at fair value less estimated costs to sell. Any fair value adjustments at foreclosure are charged to the allowance, or in the event of a write-up without previous losses charged to the allowance, a credit to earnings is recorded. The fair value of the OREO is based upon a current appraisal or a letter of intent to purchase. Losses that result from the ongoing periodic valuation of these properties are charged to the net cost of operation of OREO in the period in which they are identified. Improvements to OREO are capitalized and holding costs are charged to the net cost of operation of OREO as incurred.

Goodwill and Intangibles

Net assets of companies acquired in a business combination are recorded at fair value at the date of acquisition. Any excess of the purchase price over the fair value of net assets acquired, including identified intangible assets, is recognized as goodwill. Goodwill is reviewed for potential impairment annually, during the third quarter, or, more frequently, if events or circumstances indicate a potential impairment, at the reporting unit level. A reporting unit is an operating segment or one level below an operating segment for which discrete financial information is available and regularly reviewed by management. The Company consists of a single reporting unit. The test for impairment requires the Company to compare the fair value of the reporting unit to its carrying value. If the fair value of the reporting unit is less than its carrying value, the difference is the amount of impairment and goodwill is written down to the fair value of the reporting unit. Prior to completing the impairment test, however, the Company may assess qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount. If such an assessment indicates the fair value of the reporting unit is more likely than not greater than its carrying value, then the impairment test need not be completed.

Identified intangible assets are amortized on an accelerated basis over the period benefited. Intangible assets are also evaluated for impairment if events and circumstances indicate a possible impairment. Such evaluation is based on undiscounted cash flow projections. At December 31, 2021, intangible assets included in the Consolidated Balance Sheets principally consisted of CDI with an original estimated life of 10 years.

Leases

The Company determines if a lease is present at the inception of an agreement. Operating leases are capitalized at commencement and are discounted using the Company's FHLB borrowing rate for a similar term borrowing unless the lease defines a rate within the contract. Leases with original terms of less than 12 months are not capitalized. For operating leases existing prior to January 1, 2019, the rate for the remaining lease term as of January 1, 2019 was used. Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the obligation to make lease payments arising from the lease. Operating lease right-of-use assets and operating lease liabilities are recognized on the lease commencement date based on the present value of lease payments over the lease term. The lease term includes options to extend or terminate the lease if the Company is reasonably certain that an option will be exercised. See Note 10, "Leases" for additional information on leases.

Income Taxes

The provision for income taxes includes current and deferred income tax expense on net income adjusted for temporary and permanent differences such as interest income from state and municipal securities and investments in affordable housing tax credits. Deferred tax assets and liabilities are recognized for the expected future tax consequences of existing temporary differences between the financial reporting and tax reporting basis of assets and liabilities using enacted tax laws and rates. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. On a quarterly basis, management evaluates deferred tax assets to determine if these tax benefits are expected to be realized in future periods. This determination is based on facts and circumstances, including the Company's current and future tax outlook. To the extent a deferred tax asset is no longer considered "more likely than not" to be realized, a valuation allowance is established.

We recognize the tax benefit from uncertain tax positions only if it is more likely than not that the tax positions will be sustained on examination by the tax authorities, based on the technical merits of the position. The tax benefit is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. We recognize interest and penalties related to unrecognized tax benefits in "Provision for income taxes" in the Consolidated Statements of Income.

Advertising

Advertising costs are generally expensed as incurred.

Earnings per Common Share

The Company's capital structure includes common shares, restricted common share awards and common share options. Restricted common share awards granted prior to the 2018 equity incentive plan participate in dividends declared on common shares at the same rate as common shares. These restricted common share awards are considered participating securities under the EPS topic of the FASB ASC.

The Company calculates EPS using the two-class method. The two-class method is an earnings allocation formula that treats a participating security as having rights to earnings that otherwise would have been available to common shareholders but does not require the presentation of basic and diluted EPS for securities other than common shares. Under the two-class

method, basic EPS is computed by dividing earnings allocated to common shareholders by the weighted average number of common shares outstanding for the period. Earnings allocated to common shareholders represents net income reduced by earnings allocated to participating securities. Diluted EPS is computed in the same manner as basic EPS except that the denominator is increased to include the number of additional common shares that would have been outstanding if certain shares issuable upon exercise of common share options were included unless those additional shares would have been anti-dilutive. For the diluted EPS computation, the treasury stock method is applied and compared to the two-class method and whichever method results in a more dilutive impact is utilized to calculate diluted EPS.

Share-Based Payment

The Company accounts for stock options and stock awards in accordance with the Compensation—Stock Compensation topic of the FASB ASC. Authoritative guidance requires the Company to measure the cost of employee services received in exchange for an award of equity instruments, such as stock options or stock awards, based on the fair value of the award on the grant date. This cost must be recognized in the Consolidated Statements of Income over the vesting period of the award.

The Company issues RSAs and RSUs which generally vest over a three- or four-year period. RSA and RSU time-based awards vest ratably over their vesting period while RSA and RSU performance-based awards cliff vest. Recipients of RSAs have voting rights while recipients of RSUs do not. Pursuant to our equity incentive plan approved in 2018, the holder accrues dividends, which are paid out when the RSAs vest or when the RSUs vest and the common shares are issued. The fair value of time-based and performance-based awards are equal to the fair market value of the Company's common stock on the grant date. The fair value of market-based performance awards are estimated on the date of grant using the Monte Carlo simulation model.

Derivatives and Hedging Activities

In accordance with the Derivatives and Hedging topic of the FASB ASC, the Company recognizes derivatives as assets or liabilities on the Consolidated Balance Sheets at their fair value. The Company periodically enters into interest rate contracts with customers and offsetting contracts with third parties. As these interest rate contracts are not designated as hedges under the Derivatives and Hedging topic of the FASB ASC, the changes in fair value of these instruments are recognized immediately in earnings. The Company also enters into forward contracts to sell residential mortgage loans 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 loan commitments. The commitments to originate mortgage loans held for sale and the related forward delivery contracts are considered derivatives.

As part of the Company's overall interest rate risk management, the Company used an interest rate collar with a notional amount of \$500.0 million to mitigate interest rate risk. This collar was designated and qualified as a cash flow hedge. Gains and losses were recorded in accumulated other comprehensive income to the extent the hedge was effective. Gains and losses were reclassified from accumulated other comprehensive income to earnings in the period the hedged transaction affected earnings and was included in the same income statement line item that the hedged transaction was recorded. In October 2020, the interest rate collar was terminated. See Note 17. "Derivatives and Balance Sheet Offsetting" for additional information.

Revenue from Contracts with Customers

Revenue in the scope of Topic 606, *Revenue from Contracts with Customers* is measured based on the consideration specified in the contract with a customer and excludes amounts collected on behalf of third parties. The vast majority of the Company's revenue is specifically outside the scope of Topic 606. For in-scope revenue, the following is a description of principal activities, separated by the timing of revenue recognition from which the Company generates its revenue from contracts with customers.

- a. Revenue earned at a point in time - Examples of revenue earned at a point in time are ATM transaction fees, wire transfer fees, overdraft fees, interchange fees and foreign exchange transaction fees. Revenue is primarily based on the number and type of transactions and is generally derived from transactional information accumulated by our systems and is recognized immediately as the transactions occur or upon providing the service to complete the customer's transaction. The Company is the principal in each of these contracts, with the exception of interchange fees, in which case we are acting as the agent and record revenue net of expenses paid to the principal.
- b. Revenue earned over time - The Company earns revenue from contracts with customers in a variety of ways where the revenue is earned over a period of time - generally monthly. Examples of this type of revenue are deposit account maintenance fees, investment advisory fees, merchant revenue and safe deposit box fees. Revenue is generally derived from transactional information accumulated by our systems or those of third-parties and is recognized as the related transactions occur or services are rendered to the customer.

The Company recognizes revenue from contracts with customers when it satisfies its performance obligations. The Company's performance obligations are typically satisfied as services are rendered and our contracts generally do not include multiple performance obligations. As a result, there are no contract balances as payments and services are rendered simultaneously. Payment is generally collected at the time services are rendered, monthly or quarterly. Unsatisfied performance obligations at the report date are not material to our Consolidated Financial Statements.

In certain cases, other parties are involved with providing products and services to our customers. If the Company is principal in the transaction (providing goods or services itself), revenues are reported based on the gross consideration received from the customer and any related expenses are reported gross in noninterest expense. If the Company is an agent in the transaction (arranging for another party to provide goods or services), the Company reports its net fee or commission retained as revenue.

Rebates, waivers and reversals are recorded as a reduction of the transaction price either when the revenue is recognized by the Company or at the time the rebate, waiver or reversal is earned by the customer.

Practical expedients

The Company does not adjust the consideration from customers for the effects of a significant financing component if at contract inception the period between when the entity transfers the goods or services and when the customer pays for that good or service will be one year or less.

The Company pays sales commissions to its employees in accordance with certain incentive plans and in connection with obtaining certain contracts with customers. The Company expenses such sales commissions when incurred if the amortization period of the asset the Company otherwise would have recognized is one year or less. Sales commissions are included in compensation and employee benefits expense.

For the Company's contracts that have an original expected duration of one year or less, the Company has not disclosed the amount of the transaction price allocated to unsatisfied performance obligations as of the end of each reporting period or when the Company expects to recognize this revenue.

Accounting Pronouncements Recently Adopted or Issued

Accounting Standards Adopted in 2021

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848) - Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. In response to concerns about structural risks of the cessation of LIBOR, the amendments in this ASU provide optional guidance for a limited time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. The amendments in this ASU provide optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by reference rate reform if certain criteria are met. The amendments in this ASU apply only to contracts and hedging relationships that reference LIBOR or another reference rate expected to be discontinued due to reference rate reform. The expedients and exceptions provided by the amendments do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2022. The amendments in this ASU are elective and were effective March 12, 2020 for all entities. The adoption of this ASU did not have a material impact on the Company's Consolidated Financial Statements.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740) - Simplifying the Accounting for Income Taxes*. The guidance issued in this ASU simplifies the accounting for income taxes by eliminating certain exceptions to the guidance in ASC 740 related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition for deferred tax liabilities for outside basis differences. This ASU also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The ASU is effective for interim and annual reporting periods beginning after December 15, 2020. The adoption of this ASU did not have a material impact on the Company's Consolidated Financial Statements.

In January 2021, the FASB issued ASU 2021-01, Reference Rate Reform (*Topic 848*) - *Scope*. The amendments in this ASU clarify that certain optional expedients and exceptions for contract modifications and hedge accounting apply to derivatives that are affected by the discounting transition. Certain provisions, if elected, apply to derivative instruments that use an interest rate for margining, discounting or contract price alignment that is modified as a result of reference rate reform. Amendments in this ASU to the expedients and exceptions in Topic 848 capture the incremental consequences of the scope clarification and tailor the existing guidance to derivative instruments affected by the discounting transition. The ASU is effective for interim and annual reporting periods beginning on January 7, 2021. The adoption of this ASU did not have a material impact on the Company's Consolidated Financial Statements.

Recently Issued Accounting Standards, Not Yet Adopted

There are no recently issued accounting standards that are applicable to the Company and not yet adopted.

Reclassifications

Certain amounts reported in prior periods have been reclassified in the Consolidated Financial Statements to conform to the current presentation. The reclassifications have no effect on net income or stockholders' equity as previously reported.

2. Business Combinations

Bank of Commerce

On October 1, 2021, the Company completed its acquisition of Bank of Commerce and its wholly-owned banking subsidiary Merchants Bank of Commerce. The Company acquired 100% of the equity interests of Bank of Commerce.

The assets acquired and liabilities assumed have been accounted for under the acquisition method of accounting. The assets and liabilities, both tangible and intangible, were recorded at their fair values as of the October 1, 2021 acquisition date. Initial accounting for deferred taxes was incomplete as of December 31, 2021. The deferred taxes currently recognized in the financial statements have been determined provisionally as the final Bank of Commerce tax return has not yet been completed. The application of the acquisition method of accounting resulted in the recognition of goodwill of \$57.3 million and a CDI of \$15.9 million. The goodwill represents the excess of the purchase price over the fair value of the net assets acquired. The Company paid this premium for a number of reasons, including to expand the Company's current footprint, enter the California market and the synergies and economies of scale expected from the acquisition. The goodwill is not deductible for income tax purposes.

The table below summarizes the amounts recognized as of the acquisition date for each major class of assets acquired and liabilities assumed:

	October 1, 2021	
	<i>(in thousands)</i>	
Merger consideration	\$	256,257
Identifiable net assets acquired, at fair value		
Assets acquired		
Cash and cash equivalents	\$	155,180
Investment securities		654,480
FHLB stock		7,463
Loans, net allowance for credit loss		1,084,984
Interest receivable		5,237
Premises and equipment		17,658
Core deposit intangible		15,932
Other assets		41,963
Total assets acquired		1,982,897
Liabilities assumed		
Deposits		(1,737,584)
Subordinated debentures		(10,000)
Junior subordinated debentures		(10,310)
Other liabilities		(26,076)
Total liabilities assumed		(1,783,970)
Total fair value of identifiable net assets		198,927
Goodwill	\$	57,330

See Note 9, “Goodwill and Other Intangible Assets,” for further discussion of the accounting for goodwill and other intangible assets.

Of the \$1.08 billion net loans acquired, \$40.3 million exhibited credit deterioration on the date of purchase. The following table provides a summary of these PCD loans at acquisition:

	October 1, 2021	
	<i>(in thousands)</i>	
Par value of PCD loans acquired	\$	43,419
PCD ACL at acquisition		(2,616)
Non-credit discount on PCD loans		(525)
Purchase price of PCD loans	\$	40,278

The operating results of the Company reported herein include the operating results produced by the acquired assets and assumed liabilities for the period of October 1, 2021 to December 31, 2021. Disclosure of the amount of Bank of Commerce’s revenue and net income (excluding integration costs) included in Columbia’s Consolidated Statements of Income is impracticable due to the integration of the operations and accounting for this acquisition.

For illustrative purposes only, the following table presents certain unaudited pro forma information for the year ended December 31, 2021 and 2020. This unaudited, estimated pro forma financial information was calculated as if Bank of Commerce had been acquired as of the beginning of the year prior to the date of acquisition. This unaudited pro forma information combines the historical results of Bank of Commerce with the Company's consolidated historical results and includes certain adjustments reflecting the estimated impact of certain fair value adjustments for the respective periods. The pro forma information is not indicative of what would have occurred had the acquisition occurred as of the beginning of the year prior to the acquisition. The unaudited pro forma information does not consider any changes to the provision for credit losses resulting from recording loan assets at fair value. Additionally, Columbia expects to achieve further operating cost savings and other business synergies, including revenue growth as a result of the acquisition, which are not reflected in the pro forma amounts that follow. As a result, actual amounts would have differed from the unaudited pro forma information presented.

	Unaudited Pro Forma for the Years Ended December 31,	
	2021	2020
	<i>(in thousands, except per share amounts)</i>	
Total revenues (net interest income plus noninterest income)	\$ 664,875	\$ 660,857
Net income	\$ 221,637	\$ 164,087
EPS - basic	\$ 2.85	\$ 2.11
EPS - diluted	\$ 2.84	\$ 2.10

The following table shows the impact of the acquisition-related expenses related to the acquisition of Bank of Commerce for the periods indicated to the various components of noninterest expense:

	Years ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Noninterest Expense			
Compensation and employee benefits	\$ 4,875	\$ —	\$ —
Occupancy	271	—	—
Data processing	287	—	—
Legal and professional fees	4,429	—	—
Advertising and promotion	9	—	—
Other	499	—	—
Total impact of acquisition-related costs to noninterest expense	<u>\$ 10,370</u>	<u>\$ —</u>	<u>\$ —</u>

In addition, related to the recently announced transaction with Umpqua, the Company recognized \$4.1 million of acquisition-related expenses for the year ended December 31, 2021.

3. Cash and Cash Equivalents

The Company is required to maintain an average reserve balance with the FRB, which is based on a percentage of deposits, or maintain such reserve balance in the form of cash. The Federal Reserve reduced the required percentage to zero effective March 26, 2020; therefore, the Company did not have an average required reserve balance for the year ended December 31, 2021. The average required reserve balance for the year ended December 31, 2020 was approximately \$19.0 million, which was impacted by the FRB's decision to reduce reserve requirement ratios, and was met by holding cash and maintaining an average balance with the FRB.

4. Securities

During the second quarter of 2021, the Company transferred, at fair value, \$2.01 billion of U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations from the available for sale classification to the held to maturity classification. The net unrealized after tax gain of \$15.5 million remained in accumulated other comprehensive income and will be amortized over the remaining life of the securities, offsetting the related amortization of discount or premium on the transferred securities. No gains or losses were recognized at the time of the transfer.

At December 31, 2021, the Company's securities portfolio primarily consisted of securities issued by the U.S. government, U.S. government agencies, U.S. government-sponsored enterprises and states and municipalities. Nearly all of the Company's mortgage-backed securities and collateralized mortgage obligations are issued by U.S. government agencies and U.S. government-sponsored enterprises and are implicitly guaranteed by the U.S. government. The remainder of the Company's available for sale mortgage-backed securities are non-agency collateralized mortgage obligations which currently carry ratings no lower than A. The Company had no other issuances in its portfolio which exceeded ten percent of shareholders' equity.

The following table summarizes the amortized cost, gross unrealized gains and losses and the resulting fair value of debt securities:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	<i>(in thousands)</i>			
December 31, 2021				
Available for sale				
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 3,738,616	\$ 45,077	\$ (38,092)	\$ 3,745,601
Other asset-backed securities	469,052	3,802	(9,791)	463,063
State and municipal securities	983,704	18,525	(4,938)	997,291
U.S. government agency and government-sponsored enterprise securities	252,755	3,095	(3,274)	252,576
U.S. government securities	158,367	—	(831)	157,536
Non-agency collateralized mortgage obligations	295,547	340	(955)	294,932
Total available for sale	<u>\$ 5,898,041</u>	<u>\$ 70,839</u>	<u>\$ (57,881)</u>	<u>\$ 5,910,999</u>
Held to maturity				
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 2,148,327	\$ 50	\$ (25,771)	\$ 2,122,606
Total held to maturity	<u>\$ 2,148,327</u>	<u>\$ 50</u>	<u>\$ (25,771)</u>	<u>\$ 2,122,606</u>
December 31, 2020				
Available for sale				
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 3,640,351	\$ 178,579	\$ (4,543)	\$ 3,814,387
Other asset-backed securities	349,904	9,651	(2,076)	357,479
State and municipal securities	729,066	25,098	(592)	753,572
U.S. government agency and government-sponsored enterprise securities	278,208	6,545	(57)	284,696
Total available for sale	<u>\$ 4,997,529</u>	<u>\$ 219,873</u>	<u>\$ (7,268)</u>	<u>\$ 5,210,134</u>

There was no allowance for credit losses on both available for sale securities and held to maturity securities as of December 31, 2021 and December 31, 2020. All of the Company's debt securities held to maturity were issued by U.S. government agencies or U.S. government-sponsored enterprises. These securities carry the explicit or implicit guarantee of the U.S. government, are widely recognized as "risk free," and have a long history of zero credit loss.

A debt security is placed on nonaccrual status at the time any principal or interest payments become 90 days delinquent. Interest accrued but not received for a security placed on nonaccrual is reversed against interest income. There were no amounts of accrued interest reversed against interest income for the twelve months ended December 31, 2021 and 2020.

Accrued interest receivable for debt securities is included in "Interest receivable" on the Company's Consolidated Balance Sheet and is not reflected in the balances in the table above. At December 31, 2021 and 2020, accrued interest receivable for securities available for sale was \$19.2 million and \$17.1 million, respectively. Accrued interest for securities held to maturity was \$4.4 million at December 31, 2021. There was no accrued interest receivable related to securities held to maturity at December 31, 2020, as the Company did not have held to maturity securities at that date. The Company does not measure an allowance for credit losses for accrued interest receivable.

The following table provides the proceeds and both gross realized gains and losses on the sales and calls of debt securities available for sale as well as other securities gains and losses for the periods indicated:

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Proceeds from sales and calls of debt securities available for sale	\$ 89,219	\$ 194,697	\$ 259,554
Gross realized gains from sales of debt securities available for sale	\$ 751	\$ 471	\$ 3,357
Gross realized losses from sales of debt securities available for sale	(437)	(186)	(1,225)
Other securities gains (losses), net (1)	—	16,425	—
Investment securities gains (losses), net	<u>\$ 314</u>	<u>\$ 16,710</u>	<u>\$ 2,132</u>

(1) Other securities gains includes gain from sale of Visa Class B restricted stock and subsequent write up to fair value of remaining Visa Class B shares. See Note 22 “Fair Value Accounting and Measurement” for additional information.

The following table provides the unrealized gains and losses on equity securities at the reporting date:

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Gains recognized during the period on equity securities	\$ —	\$ 16,425	\$ —
Less: Losses recognized during the period on equity securities sold during the period.	—	(3,000)	—
Unrealized gains recognized during the reporting period on equity securities still held at the reporting date (1).	<u>\$ —</u>	<u>\$ 13,425</u>	<u>\$ —</u>

(1) Visa Class B restricted stock owned by the Company was previously carried at a zero-cost basis due to existing transfer restrictions and uncertainty of covered litigation. The sale of shares by the Company of Visa Class B restricted shares during the year ended December 31, 2020 resulted in an observable market price. As a result, the Company adjusted the carrying value of its remaining shares of Visa Class B restricted shares upward to this observable market price.

The scheduled contractual maturities of debt securities at December 31, 2021 are presented as follows:

	December 31, 2021			
	Available for sale		Held to maturity	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
	<i>(in thousands)</i>			
Due within one year	\$ 86,113	\$ 86,855	\$ —	\$ —
Due after one year through five years	961,029	977,757	46,085	45,307
Due after five years through ten years	1,522,735	1,538,002	1,256,426	1,240,587
Due after ten years	3,328,164	3,308,385	845,816	836,712
Total debt securities	<u>\$ 5,898,041</u>	<u>\$ 5,910,999</u>	<u>\$ 2,148,327</u>	<u>\$ 2,122,606</u>

The following table summarizes the carrying value of securities pledged as collateral to secure public deposits, borrowings and other purposes as permitted or required by law:

	December 31,	
	2021	2020
	<i>(in thousands)</i>	
To secure public funds	\$ 596,779	\$ 488,119
To secure borrowings	98,796	111,695
Other securities pledged	267,213	261,760
Total securities pledged as collateral	<u>\$ 962,788</u>	<u>\$ 861,574</u>

The following tables show the gross unrealized losses and fair value of the Company's debt securities available for sale for which an allowance for credit losses has not been recorded, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position at December 31, 2021 and 2020:

	Less than 12 Months		12 Months or More		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
December 31, 2021						
<i>(in thousands)</i>						
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 2,292,062	\$ (30,777)	\$ 176,946	\$ (7,315)	\$ 2,469,008	\$ (38,092)
Other asset-backed securities	195,708	(4,823)	117,751	(4,968)	313,459	(9,791)
State and municipal securities	237,354	(3,862)	40,343	(1,076)	277,697	(4,938)
U.S. government agency and government-sponsored enterprise securities	100,813	(1,988)	48,714	(1,286)	149,527	(3,274)
U.S. government securities	157,536	(831)	—	—	157,536	(831)
Non-agency collateralized mortgage obligations	212,259	(955)	—	—	212,259	(955)
Total	<u>\$ 3,195,732</u>	<u>\$ (43,236)</u>	<u>\$ 383,754</u>	<u>\$ (14,645)</u>	<u>\$ 3,579,486</u>	<u>\$ (57,881)</u>
December 31, 2020						
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 575,329	\$ (3,728)	\$ 18,527	\$ (815)	\$ 593,856	\$ (4,543)
Other asset-backed securities	143,764	(2,076)	70	—	143,834	(2,076)
State and municipal securities	86,471	(592)	—	—	86,471	(592)
U.S. government agency and government-sponsored enterprise securities	74,943	(57)	—	—	74,943	(57)
Total	<u>\$ 880,507</u>	<u>\$ (6,453)</u>	<u>\$ 18,597</u>	<u>\$ (815)</u>	<u>\$ 899,104</u>	<u>\$ (7,268)</u>

Debt securities available for sale

At December 31, 2021, there were 374 U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligation securities in an unrealized loss position. The decline in fair value is attributable to changes in interest rates relative to where these investments fall within the yield curve and their individual characteristics. Because the Company does not currently intend to sell these securities nor does the Company consider it more likely than not that it will be required to sell these securities before the recovery of amortized cost basis, which may be upon maturity, the Company concluded an allowance for credit losses is unnecessary at December 31, 2021.

At December 31, 2021, there were 55 other asset-backed securities in an unrealized loss position. The decline in fair value is attributable to changes in interest rates relative to where these investments fall within the yield curve and their individual characteristics. Because the Company does not currently intend to sell these securities nor does the Company consider it more likely than not that it will be required to sell these securities before the recovery of amortized cost basis, which may be upon maturity, the Company concluded an allowance for credit losses is unnecessary at December 31, 2021.

At December 31, 2021, there were 123 state and municipal government securities in an unrealized loss position. The unrealized losses on state and municipal securities were caused by interest rate changes or widening of market spreads subsequent to the purchase of the individual securities. Management monitors published credit ratings of these securities for adverse changes. As of December 31, 2021, none of the rated obligations of state and local government entities held by the Company had a below investment grade credit rating. Because the credit quality of these securities is investment grade and the Company does not currently intend to sell these securities nor does the Company consider it more likely than not that it will be required to sell these securities before the recovery of amortized cost basis, which may be upon maturity, the Company concluded an allowance for credit losses is unnecessary at December 31, 2021.

At December 31, 2021, there were 12 U.S. government agency and government-sponsored enterprise securities in an unrealized loss position. The decline in fair value is attributable to changes in interest rates relative to where these investments fall within the yield curve and their individual characteristics. Because the Company does not intend to sell these securities nor does the Company consider it more likely than not that it will be required to sell these securities before the recovery of amortized cost basis, which may be upon maturity, the Company concluded an allowance for credit losses is unnecessary at December 31, 2021.

At December 31, 2021, there were nine U.S. government securities in an unrealized loss position. The decline in fair value is attributable to changes in interest rates relative to where these investments fall within the yield curve and their individual characteristics. Because the Company does not intend to sell these securities nor does the Company consider it more likely than not that it will be required to sell these securities before the recovery of amortized cost basis, which may be upon maturity, the Company concluded an allowance for credit losses is unnecessary at December 31, 2021.

At December 31, 2021, there were 35 non-agency collateralized mortgage obligations in an unrealized loss position. The decline in fair value is attributable to changes in interest rates relative to where these investments fall within the yield curve and their individual characteristics. Because the Company does not intend to sell these securities nor does the Company consider it more likely than not that it will be required to sell these securities before the recovery of amortized cost basis, which may be upon maturity, the Company concluded an allowance for credit losses is unnecessary at December 31, 2021.

Equity Securities without Readily Determinable Fair Values

In 2008, the Company received Visa Class B restricted shares as part of Visa's initial public offering. These shares are transferable only under limited circumstances until they can be converted into publicly traded Visa Class A common shares. This conversion will not occur until the settlement of certain litigation which is indemnified by Visa members, including the Company. Visa funded an escrow account from its initial public offering to settle these litigation claims. Should this escrow account not be sufficient to cover these litigation claims, Visa is entitled to fund additional amounts to the escrow account by reducing each member banks' Visa Class B conversion ratio to unrestricted Visa Class A shares.

During the year ended December 31, 2020, the Company sold 17,360 shares of Visa Class B restricted stock, which resulted in an observable market price. As a result, the Company adjusted the carrying value of its remaining Visa Class B restricted shares upward to this observable market price. At December 31, 2021, the Company owned 77,683 Visa Class B shares, which had a carrying value of \$13.4 million.

5. Loans

The Company's loan portfolio includes originated and purchased loans. The following is an analysis of the loan portfolio by segment (net of unearned income):

	December 31,	
	2021	2020
	<i>(in thousands)</i>	
Commercial loans:		
Commercial real estate	\$ 4,981,263	\$ 4,062,313
Commercial business	3,423,268	3,597,968
Agriculture	795,715	779,627
Construction	384,755	268,663
Consumer loans:		
One-to-four family residential real estate	1,013,908	683,570
Other consumer	43,028	35,519
Total loans	10,641,937	9,427,660
Less: Allowance for credit losses	(155,578)	(149,140)
Total loans, net	<u>\$ 10,486,359</u>	<u>\$ 9,278,520</u>

At December 31, 2021 and 2020, the Company had no material foreign activities. Substantially all of the Company's loans and unfunded commitments are geographically concentrated in its service areas within the states of Washington, Oregon Idaho and California.

At December 31, 2021 and 2020, \$3.49 billion and \$3.46 billion, respectively, of commercial and residential real estate loans were pledged as collateral on FHLB advances. The Company has also pledged \$200.5 million and \$200.4 million of commercial loans to the FRB for additional borrowing capacity at December 31, 2021 and 2020, respectively.

Accrued interest receivable for loans is included in "Interest receivable" on the Company's Consolidated Balance Sheet and is not reflected in the balances in the table above. At December 31, 2021 and 2020, accrued interest receivable for loans was \$32.4 million and \$37.8 million, respectively. The Company does not measure an allowance for credit losses for accrued interest receivable.

The following is an aging of the amortized cost of the loan portfolio as of December 31, 2021 and 2020:

	Current Loans	30 - 59 Days Past Due	60 - 89 Days Past Due	Greater than 90 Days Past Due	Total Past Due	Nonaccrual Loans	Total Loans
December 31, 2021							
<i>(in thousands)</i>							
Commercial loans:							
Commercial real estate . .	\$ 4,977,781	\$ —	\$ 1,610	\$ —	\$ 1,610	\$ 1,872	\$ 4,981,263
Commercial business . . .	3,406,539	2,721	687	—	3,408	13,321	3,423,268
Agriculture	789,112	1,207	—	—	1,207	5,396	795,715
Construction	384,755	—	—	—	—	—	384,755
Consumer loans:							
One-to-four family residential real estate . .	1,010,343	921	211	—	1,132	2,433	1,013,908
Other consumer	42,998	11	—	—	11	19	43,028
Total	<u>\$ 10,611,528</u>	<u>\$ 4,860</u>	<u>\$ 2,508</u>	<u>\$ —</u>	<u>\$ 7,368</u>	<u>\$ 23,041</u>	<u>\$ 10,641,937</u>

	Current Loans	30 - 59 Days Past Due	60 - 89 Days Past Due	Greater than 90 Days Past Due	Total Past Due	Nonaccrual Loans	Total Loans
December 31, 2020							
<i>(in thousands)</i>							
Commercial loans:							
Commercial real estate . .	\$ 4,037,309	\$ 17,292	\$ —	—	\$ 17,292	\$ 7,712	\$ 4,062,313
Commercial business . . .	3,578,905	1,282	4,559	—	5,841	13,222	3,597,968
Agriculture	767,102	911	—	—	911	11,614	779,627
Construction	268,304	—	142	—	142	217	268,663
Consumer loans:							
One-to-four family residential real estate . .	677,627	2,283	1,659	—	3,942	2,001	683,570
Other consumer	35,450	24	5	—	29	40	35,519
Total	<u>\$ 9,364,697</u>	<u>\$ 21,792</u>	<u>\$ 6,365</u>	<u>\$ —</u>	<u>\$ 28,157</u>	<u>\$ 34,806</u>	<u>\$ 9,427,660</u>

Loan payments are considered timely when the contractual principal or interest due in accordance with the terms of the loan agreement or any portion thereof is received on the due date of the scheduled payment. In addition, the risk rating on loans modified in association with the CARES Act or interagency guidance did not change. These loans are not considered past due until after the deferral period is over and scheduled payments are due. Accrued interest on these COVID-19 modified loans is due, in full, when the deferral period ends. The credit quality of these loans will be reevaluated after the deferral period ends.

Nonaccrual loans are generally loans placed on a nonaccrual basis when they become 90 days past due or when there are otherwise serious doubts about the collectability of principal or interest within the existing terms of the loan. The Company's policy is to write-off all accrued interest on loans when they are placed on nonaccrual status.

The following table summarizes written-off interest on nonaccrual loans for the years ended December 31, 2021, 2020 and 2019:

	Years Ended December 31,		
	2021	2020	2019
<i>(in thousands)</i>			
Commercial loans	\$ 628	\$ 1,972	\$ 1,475
Consumer loans	45	28	196
Total	<u>\$ 673</u>	<u>\$ 2,000</u>	<u>\$ 1,671</u>

The following summarizes the amortized cost of nonaccrual loans for which there was no related ACL as of December 31, 2021 and 2020:

	December 31, 2021	December 31, 2020
	<i>(in thousands)</i>	
Commercial loans:		
Commercial real estate	\$ 932	\$ 6,393
Commercial business	5,131	6,382
Agriculture	3,756	8,136
Total	<u>\$ 9,819</u>	<u>\$ 20,911</u>

The following is an analysis of loans classified as TDR for the years ended December 31, 2021, 2020 and 2019:

	Years Ended December 31,								
	2021			2020			2019		
	Number of TDR Modifications	Pre- Modification Outstanding Recorded Investment	Post- Modification Outstanding Recorded Investment	Number of TDR Modifications	Pre- Modification Outstanding Recorded Investment	Post- Modification Outstanding Recorded Investment	Number of TDR Modifications	Pre- Modification Outstanding Recorded Investment	Post- Modification Outstanding Recorded Investment
	<i>(dollars in thousands)</i>								
Commercial loans:									
Commercial real estate	1	\$ 628	\$ 628	—	\$ —	\$ —	—	\$ —	\$ —
Commercial business	11	2,600	2,600	11	3,257	3,257	10	6,560	6,560
Agriculture	1	583	583	2	3,495	3,495	—	—	—
Consumer loans:									
One-to-four family residential real estate	3	155	155	6	814	814	13	787	787
Other consumer	—	—	—	—	—	—	1	1	1
Total	<u>16</u>	<u>\$ 3,966</u>	<u>\$ 3,966</u>	<u>19</u>	<u>\$ 7,566</u>	<u>\$ 7,566</u>	<u>24</u>	<u>\$ 7,348</u>	<u>\$ 7,348</u>

The Company's loans classified as TDR are loans that have been modified or the borrower has been granted special concessions due to financial difficulties, that if not for the challenges of the borrower, the Company would not otherwise consider. The Company had \$1.5 million of commitments to lend additional funds on loans classified as TDR as of December 31, 2021 as compared to \$651 thousand of similar commitments at December 31, 2020. The TDR modifications or concessions are made to increase the likelihood that these borrowers with financial difficulties will be able to satisfy their debt obligations as amended. The concessions granted in the restructurings, summarized in the table above, largely consisted of maturity extensions, interest rate modifications or a combination of both. In limited circumstances, a reduction in the principal balance of the loan could also be made as a concession. The Company had no loans classified as TDR that defaulted within 12 months of being classified as TDR during the years ended December 31, 2021 and 2020. During the year ended December 31, 2019, the Company had one \$26 thousand consumer loan that defaulted within 12 months of being classified as a TDR. The defaulted TDR loan was collateralized and included with the loans individually measured for credit loss.

Loan modifications and PPP loans in response to COVID-19

Financial institutions are required to maintain records of the volume of loans involved in modifications to which TDR relief is applicable. At December 31, 2021, the Company had four deferments on \$14.1 million of loans, gross of unearned income. These deferments are not classified as TDRs and will not be reported as past due provided that they are performing in accordance with the modified terms.

The Company offered PPP loans to provide financial support to small- and medium-size businesses to cover payroll and certain other expenses during the COVID-19 pandemic. The PPP was established by the CARES Act and is implemented by the U.S. SBA with support from the U.S. Department of Treasury. The program, which was amended by the Paycheck Protection Flexibility Act of 2020, provides small businesses with funds to pay up to 24 weeks of payroll costs including benefits, as well as interest on mortgages, rent and utilities. Funds are provided to small businesses in the form of loans that will be fully forgiven when used for permitted purposes and when at least 60% of the funds are used for payroll costs and applicable employment levels are maintained in accordance with the requirements of the amended PPP. At December 31, 2021, we had \$184.1 million of PPP loans outstanding, which are included in commercial business loans.

6. Allowance for Credit Losses and Allowance for Unfunded Commitments and Letters of Credit

The ACL is determined through quarterly assessments of the present value of expected future cash flows within the loan portfolio, which is deducted from the loan's amortized cost basis to determine the expected credit losses of the loan portfolio. We estimate the ACL using relevant and reliable available information, which is derived from both internal and external sources, relating to past events, current conditions, and reasonable and supportable forecasts. Additions to and recaptures from the ACL are charged to current period earnings through the provision for credit losses. Loan amounts that are determined to be uncollectible are charged directly against the ACL and netted against amounts recovered on previously charged-off loans.

For the purpose of calculating portfolio level reserves, we have segmented our loan portfolio into two portfolio segments (Commercial and Consumer). The Commercial and Consumer portfolio segments are then further broken down into loan classes by risk characteristics. The risk characteristics include regulatory call codes, type of industry, risk ratings and collateral type.

The ACL is comprised of reserves measured on a collective (pool) basis using a quantitative DCF model for all loan classes with similar risk characteristics and then qualitatively adjusted for large loan concentrations, policy exceptions granted and other factors. The quantitative DCF model utilizes anticipated period cash flows determined on a loan-level basis. The anticipated cash flows take into account contractual principal and interest payments, anticipated segment level prepayments, probability of defaults and historical loss given defaults. The majority of our loan classes utilize regression models to calculate probability of defaults, in which macroeconomic factors are correlated to historical quarterly defaults. The Commercial segment multi-factor models utilize a mix of 15 macroeconomic factors, including the four most commonly used factors: Real GDP, National Unemployment Rate, Disposable Personal Income and Private Inventories. The Consumer segment multi-factor models utilize a mix of three macroeconomic factors: National Unemployment Rate, Home Price Index and Disposable Income. The Company utilizes an 18 month reasonable and supportable forecast for the macroeconomic factors, after which the probability of default reverts to its historical mean using a straight-line basis constructed on each macroeconomic factor's absolute historical quarterly change.

Loans are individually measured for credit losses if they do not share similar risk characteristics of other loans within their respective pools. Individually measured loans are primarily nonaccrual and collateral dependent with balances equal to or greater than \$500,000 and for which the borrower is experiencing financial difficulty such that full satisfaction of the contractual terms of the loan are in question. Commercial real estate loans are secured by commercial real estate, including owner occupied and non-owner occupied commercial real estate, as well as multifamily residential real estate. Commercial business loans are primarily secured by non-real estate collateral, including equipment and other non-real estate fixed assets, inventory, receivables and cash. Agricultural loans are secured by farmland and other agricultural real estate, as well as equipment, inventory, such as crops and livestock, non-real estate fixed assets and cash. Construction loans are secured by one-to-four family residential real estate and commercial real estate in varying stages of development. One-to-four family residential real estate loans are secured by one-to-four family residential properties. Other consumer loans are secured by personal property. For collateral dependent loans, the Company calculates the allowance as the difference between the amortized cost of the loan and the fair market value of the collateral. The fair market value of the collateral is determined by either the discounted expected future cash flows from the operation of the collateral or the appraised value of the collateral, less costs to sell. If the fair value of the collateral is greater than the amortized cost of the loan, no reserve is recorded.

The Company also records an allowance for credit losses on unfunded loan commitments and letters of credit. We estimate expected credit losses on unfunded commitments in which we are exposed to credit risk, unless we have the option to unconditionally cancel the obligation. Expected credit losses are calculated based on the likelihood that funding will occur and an estimate of what will be funded by analyzing the most recent four-quarter utilization rates, current utilization and our quantitative ACL rate. The allowance for unfunded commitments and letters of credit is included in "Other Liabilities" on the Consolidated Balance Sheets, with changes to the balance being charged to noninterest expense.

We do not measure an allowance for credit losses on accrued interest receivable balances because these balances are written-off in a timely manner as a reduction to interest income when loans are placed on nonaccrual status.

The following tables show a detailed analysis of the ACL for the years ended December 31, 2021, 2020 and 2019:

	Beginning Balance	Initial ACL recorded for PCD loans acquired during the period	Charge-offs	Recoveries	Provision (Recapture)	Ending Balance
Year Ended December 31, 2021						
	<i>(in thousands)</i>					
Commercial loans:						
Commercial real estate	\$ 68,934	\$ 2,225	\$ (1,044)	\$ 633	\$ (9,494)	\$ 61,254
Commercial business	45,250	30	(6,364)	4,862	10,934	54,712
Agriculture	9,052	38	(322)	355	(975)	8,148
Construction	7,636	35	—	593	(2,867)	5,397
Consumer loans:						
One-to-four family residential real estate	16,875	286	(170)	907	6,225	24,123
Other consumer	1,393	2	(1,163)	735	977	1,944
Total	<u>\$ 149,140</u>	<u>\$ 2,616</u>	<u>\$ (9,063)</u>	<u>\$ 8,085</u>	<u>\$ 4,800</u>	<u>\$ 155,578</u>

	Beginning Balance	Impact of Adopting ASC 326	Charge-offs	Recoveries	Provision (Recapture)	Ending Balance
Year Ended December 31, 2020						
	<i>(in thousands)</i>					
Commercial loans:						
Commercial real estate	\$ 20,340	\$ 7,533	\$ (1,419)	\$ 131	\$ 42,349	\$ 68,934
Commercial business	30,292	762	(12,396)	3,438	23,154	45,250
Agriculture	15,835	(9,325)	(6,427)	172	8,797	9,052
Construction	8,571	(1,750)	—	709	106	7,636
Consumer loans:						
One-to-four family residential real estate	7,435	4,237	(84)	2,083	3,204	16,875
Other consumer	883	778	(766)	399	99	1,393
Unallocated	612	(603)	—	—	(9)	—
Total	<u>\$ 83,968</u>	<u>\$ 1,632</u>	<u>\$ (21,092)</u>	<u>\$ 6,932</u>	<u>\$ 77,700</u>	<u>\$ 149,140</u>

	Beginning Balance	Charge- offs	Recoveries	Provision (Recapture)	Ending Balance
Year Ended December 31, 2019					
	<i>(in thousands)</i>				
Commercial loans:					
Commercial real estate	\$ 14,864	\$ (2,160)	\$ 3,377	\$ 4,259	\$ 20,340
Commercial business	34,658	(11,290)	3,066	3,858	30,292
Agriculture	9,589	(245)	299	6,192	15,835
Construction	14,395	(242)	3,641	(9,223)	8,571
Consumer loans:					
One-to-four family residential real estate	8,024	(1,196)	1,773	(1,166)	7,435
Other consumer	786	(82)	165	14	883
Unallocated	1,053	—	—	(441)	612
Total	<u>\$ 83,369</u>	<u>\$ (15,215)</u>	<u>\$ 12,321</u>	<u>\$ 3,493</u>	<u>\$ 83,968</u>

The \$6.4 million increase in the ACL at December 31, 2021 compared to the ACL at December 31, 2020 was primarily due to the increase in the loan portfolio from the Bank of Commerce acquisition as well as loan originations, partially offset by improvement in the overall portfolio credit quality and an improved economic forecast. A primary driver used to establish the December 31, 2021 ACL included a significantly improved forecast of the national unemployment rate throughout the forecast period as compared to prior year, as well as healthy forecasts for disposable personal income and real GDP. The models used for calculating the ACL are sensitive to changes in these and other economic factors, which could result in volatility as these assumptions change over time. The ACL at December 31, 2021 does not include a reserve for the PPP loans as these loans are fully guaranteed by the SBA.

Changes in the allowance for unfunded commitments and letters of credit, a component of “Other liabilities” in the Consolidated Balance Sheets, are summarized as follows:

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Beginning balance	\$ 8,300	\$ 3,430	\$ 4,330
Impact of Adopting ASC 326	—	1,570	—
Net changes in the allowance for unfunded commitments and letters of credit	200	3,300	(900)
Ending balance	<u>\$ 8,500</u>	<u>\$ 8,300</u>	<u>\$ 3,430</u>

Credit Quality Indicators

The extension of credit in the form of loans or other credit products to consumer and commercial clients is one of our principal business activities. Our policies and applicable laws and regulations require risk analysis as well as ongoing portfolio and credit management. We manage our credit risk through lending limit constraints, credit review, approval policies and extensive, ongoing internal monitoring. We also manage credit risk through diversification of the loan portfolio by type of loan, type of industry and type of borrower and by limiting the aggregation of debt to a single borrower.

We evaluate the credit quality of our loan portfolio using regulatory risk ratings, which are based on relevant information about the borrower’s financial condition, including current financial condition, historical payment experience, credit documentation and current economic trends. Risk ratings are reviewed and updated whenever appropriate, with more periodic reviews as the risk and dollar value of the loss on the loan increases. All loans risk rated special mention or worse with amortized costs exceeding \$100,000 are reviewed at least quarterly with more frequent review for specific loans.

Pass rated loans are generally considered to have sufficient sources of repayment in order to repay the loan in full in accordance with all terms and conditions. Special Mention rated loans have potential weaknesses that, if left uncorrected, may result in deterioration of the repayment prospects for the asset or in the Company’s credit position at some future date. Loans with a risk rating of Substandard or worse are reviewed to assess the ability of our borrowers to service all interest and principal obligations and, as a result, the risk rating or accrual status may be adjusted accordingly. Loans risk rated as Substandard reflect loans where a loss is possible if loan weaknesses are not corrected. Doubtful rated loans have a high probability of loss; however, the amount of loss has not yet been determined. Loss rated loans are considered uncollectible and when identified, are charged-off.

The following is an analysis of the credit quality of our loan portfolio as of December 31, 2021 and 2020:

	Term Loans						Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term Loans Amortized Cost Basis	Total (1)
	Amortized Cost Basis by Origination Year								
	2021	2020	2019	2018	2017	Prior			
December 31, 2021	(in thousands)								
Commercial loans:									
Commercial real estate									
Pass	\$ 1,068,493	\$ 760,545	\$ 650,593	\$ 492,348	\$ 515,233	\$ 1,180,115	\$ 74,754	\$ 3,644	\$ 4,745,725
Special mention	2,252	—	19,016	6,196	163	27,270	—	2,199	57,096
Substandard	4,119	5,897	45,769	9,112	29,917	82,599	1,029	—	178,442
Total commercial real estate	\$ 1,074,864	\$ 766,442	\$ 715,378	\$ 507,656	\$ 545,313	\$ 1,289,984	\$ 75,783	\$ 5,843	\$ 4,981,263
Commercial business									
Pass	\$ 891,957	\$ 426,004	\$ 280,823	\$ 217,605	\$ 144,363	\$ 232,356	\$ 1,028,616	\$ 35,411	\$ 3,257,135
Special mention	621	135	6,097	747	105	51	34,256	236	42,248
Substandard	4,329	4,610	18,393	28,066	20,568	27,462	18,796	1,661	123,885
Total commercial business	\$ 896,907	\$ 430,749	\$ 305,313	\$ 246,418	\$ 165,036	\$ 259,869	\$ 1,081,668	\$ 37,308	\$ 3,423,268
Agriculture									
Pass	\$ 147,561	\$ 87,964	\$ 74,658	\$ 29,739	\$ 46,058	\$ 79,693	\$ 266,573	\$ 5,448	\$ 737,694
Special mention	162	—	445	—	—	—	565	—	1,172
Substandard	—	7,717	9,148	1,616	5,532	1,833	29,125	1,878	56,849
Total agriculture	\$ 147,723	\$ 95,681	\$ 84,251	\$ 31,355	\$ 51,590	\$ 81,526	\$ 296,263	\$ 7,326	\$ 795,715
Construction									
Pass	\$ 228,661	\$ 53,880	\$ 35,795	\$ 3,183	\$ 3,285	\$ 2,189	\$ 55,765	\$ —	\$ 382,758
Substandard	—	—	1,748	—	—	249	—	—	1,997
Total construction	\$ 228,661	\$ 53,880	\$ 37,543	\$ 3,183	\$ 3,285	\$ 2,438	\$ 55,765	\$ —	\$ 384,755
Consumer loans:									
One-to-four family residential real estate									
Pass	\$ 390,153	\$ 140,799	\$ 56,520	\$ 51,549	\$ 32,447	\$ 111,307	\$ 222,747	\$ 1,347	\$ 1,006,869
Substandard	85	470	183	562	234	4,736	485	284	7,039
Total one-to-four family residential real estate ..	\$ 390,238	\$ 141,269	\$ 56,703	\$ 52,111	\$ 32,681	\$ 116,043	\$ 223,232	\$ 1,631	\$ 1,013,908
Other consumer									
Pass	\$ 7,045	\$ 2,711	\$ 1,950	\$ 13,489	\$ 560	\$ 1,277	\$ 15,853	\$ 97	\$ 42,982
Substandard	—	—	—	—	1	13	23	9	46
Total consumer	\$ 7,045	\$ 2,711	\$ 1,950	\$ 13,489	\$ 561	\$ 1,290	\$ 15,876	\$ 106	\$ 43,028
Total	\$ 2,745,438	\$ 1,490,732	\$ 1,201,138	\$ 854,212	\$ 798,466	\$ 1,751,150	\$ 1,748,587	\$ 52,214	\$ 10,641,937
Less:									
Allowance for credit losses	155,578								
Loans, net	\$ 10,486,359								

(1) Loans that are on short-term deferments are treated as Pass loans and will not be reported as past due provided that they are performing in accordance with the modified terms.

	Term Loans						Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term Loans Amortized Cost Basis	Total
	Amortized Cost Basis by Origination Year								
	2020	2019	2018	2017	2016	Prior			
December 31, 2020	(in thousands)								
Commercial loans:									
Commercial real estate									
Pass	\$ 674,444	\$ 645,328	\$ 478,881	\$ 502,112	\$ 408,972	\$ 946,980	\$ 52,049	\$ 11,332	\$ 3,720,098
Special mention	3,348	39,374	21,285	30,232	46,197	50,115	5	2,139	192,695
Substandard	2,916	24,860	13,571	15,652	43,735	41,138	3,389	4,259	149,520
Total commercial real estate	\$ 680,708	\$ 709,562	\$ 513,737	\$ 547,996	\$ 498,904	\$ 1,038,233	\$ 55,443	\$ 17,730	\$ 4,062,313
Commercial business									
Pass	\$ 1,087,400	\$ 366,435	\$ 324,360	\$ 199,010	\$ 218,313	\$ 214,677	\$ 1,000,725	\$ 11,540	\$ 3,422,460
Special mention	3,002	26,361	8,471	24,582	7,004	10,650	22,426	—	102,496
Substandard	3,625	7,376	11,061	5,905	6,396	3,743	32,134	2,772	73,012
Total commercial business	\$ 1,094,027	\$ 400,172	\$ 343,892	\$ 229,497	\$ 231,713	\$ 229,070	\$ 1,055,285	\$ 14,312	\$ 3,597,968
Agriculture									
Pass	\$ 142,163	\$ 90,612	\$ 44,434	\$ 58,366	\$ 58,893	\$ 59,396	\$ 244,135	\$ 9,299	\$ 707,298
Special mention	—	90	285	33	—	—	85	13	506
Substandard	5,193	12,480	5,868	4,258	284	3,502	38,780	1,458	71,823
Total agriculture	\$ 147,356	\$ 103,182	\$ 50,587	\$ 62,657	\$ 59,177	\$ 62,898	\$ 283,000	\$ 10,770	\$ 779,627
Construction									
Pass	\$ 134,693	\$ 66,974	\$ 10,066	\$ 3,498	\$ 763	\$ 1,805	\$ 29,323	\$ 3,753	\$ 250,875
Substandard	—	17,732	—	—	—	56	—	—	17,788
Total construction	\$ 134,693	\$ 84,706	\$ 10,066	\$ 3,498	\$ 763	\$ 1,861	\$ 29,323	\$ 3,753	\$ 268,663
Consumer loans:									
One-to-four family residential real estate									
Pass	\$ 161,021	\$ 77,756	\$ 62,696	\$ 29,737	\$ 20,889	\$ 78,098	\$ 243,325	\$ 3,655	\$ 677,177
Special mention	—	—	332	—	—	195	—	—	527
Substandard	—	849	227	1,166	344	1,968	1,005	307	5,866
Total one-to-four family residential real estate	\$ 161,021	\$ 78,605	\$ 63,255	\$ 30,903	\$ 21,233	\$ 80,261	\$ 244,330	\$ 3,962	\$ 683,570
Other consumer									
Pass	\$ 5,548	\$ 3,109	\$ 3,886	\$ 989	\$ 244	\$ 1,060	\$ 19,911	\$ 474	\$ 35,221
Substandard	30	—	—	5	—	170	53	40	298
Total consumer	\$ 5,578	\$ 3,109	\$ 3,886	\$ 994	\$ 244	\$ 1,230	\$ 19,964	\$ 514	\$ 35,519
Total	\$ 2,223,383	\$ 1,379,336	\$ 985,423	\$ 875,545	\$ 812,034	\$ 1,413,553	\$ 1,687,345	\$ 51,041	\$ 9,427,660
Less:									
Allowance for credit losses									149,140
Loans, net									\$ 9,278,520

7. Other Real Estate Owned

The following table sets forth activity in OREO for the periods indicated:

	Years Ended December 31,	
	2021	2020
	<i>(in thousands)</i>	
Balance, beginning of period	\$ 553	\$ 552
Transfers in	—	1,033
Valuation adjustments	(140)	(70)
Proceeds from sale of OREO property	(132)	(1,066)
Gain on sale of OREO, net	100	104
Balance, end of period	<u>\$ 381</u>	<u>\$ 553</u>

At December 31, 2021, there were no foreclosed residential real estate properties held as a result of obtaining physical possession and the recorded investment of consumer mortgage loans secured by residential real estate properties for which formal foreclosure proceedings were in process was \$47 thousand.

8. Premises and Equipment

Real and personal property and software, less accumulated depreciation and amortization, were as follows:

	December 31,	
	2021	2020
	<i>(in thousands)</i>	
Land	\$ 52,639	\$ 51,436
Buildings	119,546	107,924
Leasehold improvements	31,084	30,094
Furniture and equipment	41,313	38,679
Vehicles	476	439
Computer software	9,942	12,581
Total cost	<u>255,000</u>	<u>241,153</u>
Less accumulated depreciation and amortization	<u>(82,856)</u>	<u>(79,094)</u>
Total	<u>\$ 172,144</u>	<u>\$ 162,059</u>

Total depreciation and amortization expense was \$11.0 million, \$10.7 million, and \$10.3 million, for the years ended December 31, 2021, 2020, and 2019, respectively.

9. Goodwill and Other Intangible Assets

Goodwill is not amortized but is reviewed for potential impairment at the reporting unit level. Management analyzes its goodwill for impairment on an annual basis and between annual tests in certain circumstances such as upon material adverse changes in legal, business, regulatory and economic factors. An impairment loss is recorded to the extent that the carrying amount of goodwill exceeds its implied fair value. The Company performed its annual impairment assessment as of July 31, 2021 and concluded that there was no impairment. As of December 31, 2021, we determined there were no events or circumstances which would more likely than not reduce the fair value of our reporting unit below its carrying amount.

Our CDIs are evaluated for impairment if events and circumstances indicate possible impairment. The CDIs are amortized on an accelerated basis over an estimated life of 10 years each.

The following table sets forth activity for goodwill and other intangible assets for the periods indicated:

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Goodwill, beginning of period	\$ 765,842	\$ 765,842	\$ 765,842
Established through acquisition (1)	57,330	—	—
Total goodwill, end of period	823,172	765,842	765,842
Other intangible assets, net			
CDI:			
Gross CDI balance, beginning of period (2)	78,821	105,473	105,473
Accumulated amortization, beginning of period	(53,006)	(70,934)	(60,455)
CDI, net, beginning of period	25,815	34,539	45,018
Established through acquisition	15,900	—	—
CDI current period amortization	(7,987)	(8,724)	(10,479)
Total CDI, end of period	33,728	25,815	34,539
Intangible assets not subject to amortization	919	919	919
Other intangible assets, net at end of period	34,647	26,734	35,458
Total goodwill and intangible assets, end of period	\$ 857,819	\$ 792,576	\$ 801,300

(1) See Note 2, Business Combinations, for additional information regarding the goodwill related to the acquisition of Bank of Commerce on October 1, 2021.

(2) For the year ended December 31, 2021, the gross CDI balance, beginning of period has been adjusted to remove fully amortized amounts. Prior period columns have not been adjusted.

The following table provides the estimated future amortization expense of CDI for the succeeding five years:

	Years Ending December 31,	
	<i>(in thousands)</i>	
2022	\$	8,698
2023		7,082
2024		5,673
2025		4,366
2026		3,225

10. Leases

Lease Commitments

The Company's lease commitments consist primarily of leased locations under various non-cancellable operating leases that expire between 2022 and 2043. The majority of the leases contain renewal options and provisions for increases in rental rates based on an agreed upon index or predetermined escalation schedule.

The following table shows the details of the Company's operating lease right-of-use asset and the associated lease liability for the period indicated:

Item	Balance Sheet Location	December 31,	
		2021	2020
		<i>(in thousands)</i>	
Operating lease asset	Other assets	\$ 60,296	\$ 61,863
Operating lease liability	Other liabilities	\$ 66,375	\$ 67,503

At December 31, 2021, the Company's operating leases have a weighted average remaining lease term of 7.5 years and a weighted average discount rate of 2.4%. Cash paid for amounts included in the measurement of operating lease liabilities was \$12.5 million and \$11.2 million for the years ended December 31, 2021 and 2020, respectively. Right-of-use assets obtained in exchange for new operating lease liabilities during the years ended December 31, 2021 and 2020 were \$7.2 million and \$13.9 million, respectively.

The following table shows the components of net lease costs:

Item	Statement of Income Location	Years Ended December 31,		
		2021	2020	2019
(in thousands)				
Operating lease cost (1)	Occupancy	\$ 11,760	\$ 11,073	\$ 10,851
Variable lease cost	Occupancy	1,800	1,732	1,805
Sublease income	Occupancy	(1,562)	(1,454)	(1,182)
Net lease cost		\$ 11,998	\$ 11,351	\$ 11,474

(1) Includes short-term lease costs, which are immaterial.

The following table shows the maturity analysis for operating leases as of December 31, 2021:

		Years Ending December 31,
		<i>(in thousands)</i>
2022	\$	12,477
2023		10,845
2024		9,926
2025		8,616
2026		7,395
Thereafter		23,753
Total future minimum lease payments		73,012
Amounts representing interest		(6,637)
Present value of minimum lease payments	\$	<u>66,375</u>

Sale-leaseback transactions:

In 2019, the Company sold one of its Washington facilities and leased back a portion of the facility utilized for branch operations. The lease term is through September 2022, with monthly payments of approximately \$19 thousand. The sale-leaseback transaction resulted in a pre-tax gain of \$5.9 million in the year ended December 31, 2019.

For additional detail regarding the lease guidance, see Note 1, "Summary of Significant Accounting Policies and Reclassifications."

11. Deposits

Year-end deposits are summarized in the following table:

	December 31,	
	2021	2020
	<i>(in thousands)</i>	
Demand and other noninterest-bearing	\$ 8,856,714	\$ 6,913,214
Money market	3,525,299	2,780,922
Interest-bearing demand	1,999,407	1,433,083
Savings	1,617,546	1,169,721
Interest-bearing public funds, other than certificates of deposit	779,146	656,273
Certificates of deposit, less than \$250,000	249,120	201,805
Certificates of deposit, \$250,000 or more	160,490	108,935
Certificates of deposit insured by CD Option of IntraFi Network Deposits	35,611	23,105
Brokered certificates of deposit	—	5,000
Reciprocal money market accounts	786,046	577,804
Subtotal	18,009,379	13,869,862
Valuation adjustment resulting from acquisition accounting	736	—
Total deposits	<u>\$ 18,010,115</u>	<u>\$ 13,869,862</u>

Overdrafts of \$2.4 million and \$1.2 million were reclassified as loan balances at December 31, 2021 and 2020, respectively.

The following table shows the amount and maturity of time deposits:

	Years Ending December 31,	
	<i>(in thousands)</i>	
2022	\$	346,916
2023		53,080
2024		19,791
2025		12,288
2026		13,879
Thereafter		3
Total	<u>\$</u>	<u>445,957</u>

12. FHLB and FRB Borrowings

FHLB

The Company has entered into borrowing arrangements with the FHLB to borrow funds under a short-term floating rate fed funds overnight advance program and fixed-term loan agreements. All borrowings are secured by stock of the FHLB and a blanket pledge of qualifying loans receivable. The Company had aggregate borrowing capacity with the FHLB of \$2.18 billion and \$2.09 billion for the years ended December 31, 2021 and 2020, respectively, of which the Company had borrowed \$7.0 million as of both December 31, 2021 and 2020. See Note 5, “Loans,” for the carrying value of pledged loans.

At December 31, 2021, FHLB advances were scheduled to mature as follows:

Federal Home Loan Bank Advances Fixed rate advances		
	Weighted Average Rate	Amount
	<i>(dollars in thousands)</i>	
Within 1 year	3.85 %	\$ 2,000
Due after 10 years	5.37 %	5,000
Total		7,000
Valuation adjustment from acquisition accounting		359
Total		<u>\$ 7,359</u>

The maximum, average outstanding and year end balances and average interest rates on advances from the FHLB were as follows for the years ended December 31, 2021, 2020 and 2019:

Years ended December 31,				
	2021	2020	2019	
	<i>(dollars in thousands)</i>			
Balance at end of period	\$ 7,359	\$ 7,414	\$ 953,469	
Average balance during period	\$ 7,388	\$ 341,643	\$ 469,983	
Maximum month end balance during period	\$ 7,409	\$ 1,005,464	\$ 953,469	
Weighted average rate during period	4.94 %	1.82 %	2.42 %	
Weighted average rate at December 31	4.94 %	4.94 %	1.84 %	

FRB

The Company pledges securities and loans for borrowing capacity at the FRB and had a borrowing capacity with the FRB of \$226.0 million and \$234.4 million for the years ended December 31, 2021 and 2020, respectively. See Note 4, “Securities,” for the carrying value of pledged investment securities and Note 5, “Loans,” for the carrying value of pledged loans. In 2020, the Company was also eligible to borrow under the PPPLF utilizing PPP loans as collateral; however this facility terminated on July 30, 2021. The Company had no borrowings as of December 31, 2021 and only test overnight borrowings during the year resulting in no average borrowings for 2021. While the Company also had no borrowings as of December 31, 2020, there were overnight borrowings, in addition to short-term test borrowings under the PPPLF at a rate of 0.35%, resulting in average borrowings of \$1.1 million and \$99 thousand for 2020 and 2019, respectively.

13. Securities Sold Under Agreements to Repurchase

The Company’s securities sold under agreements to repurchase consist of sweep repurchase agreements that are generally short-term agreements. These agreements are treated as financing transactions and the obligations to repurchase securities sold are reflected as a liability in the Consolidated Financial Statements. The dollar amount of securities underlying the agreements remains in the applicable asset account of the Consolidated Financial Statements. These agreements had a balance of \$86.0 million and a weighted average interest rate of 0.18% at December 31, 2021. All of these repurchase agreements in existence at December 31, 2021 mature on a daily basis. Securities available for sale with a carrying amount of \$101.1 million at December 31, 2021 were pledged as collateral for the sweep repurchase agreement borrowings.

14. Subordinated Debentures

On November 1, 2017, with its acquisition of Pacific Continental, the Company assumed \$35.0 million in aggregate principal amount of fixed-to-floating rate subordinated debentures. These debentures were callable at par on June 30, 2021 and were fully redeemed in December 2021.

On October 1, 2021, with its acquisition of Bank of Commerce, the Company assumed \$10.0 million in aggregate principal amount of fixed-to-floating rate subordinated debentures. Interest on the subordinated debentures will be paid at a variable rate equal to three-month LIBOR plus 5.26%, payable quarterly until the maturity date of December 10, 2025.

15. Junior Subordinated Debentures

On October 1, 2021, with its acquisition of Bank of Commerce, the Company assumed \$10.3 million of trust preferred obligations. These obligations bear a contractual interest rate of junior subordinated debentures based on the three-month LIBOR plus 1.58% adjusted quarterly and are redeemable at the Company's option on any March 15, June 15, September 15, or December 15.

16. Revolving Line of Credit

The Company has a \$15.0 million short-term credit facility with an unaffiliated bank, for which the term was extended through May 26, 2022 as a result of an amendment executed during the second quarter of 2021. This facility has a variable interest rate and provides the Company additional liquidity, if needed, for various corporate activities including the repurchase of shares of Columbia Banking System, Inc. common stock. As of December 31, 2021, there was no outstanding balance. The credit agreement requires the Company to comply with certain covenants including those related to asset quality and capital levels. The Company was in compliance with all covenants associated with this facility at December 31, 2021.

17. Derivatives and Balance Sheet Offsetting

The Company is exposed to certain risks arising from both its business and economic conditions. The Company principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Company manages economic risks, including interest rate, liquidity and credit risk, primarily by managing the amount, sources and duration of its assets and liabilities as well as the use of derivative financial instruments. Specifically, the Company enters into interest rate-based derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts. The Company's derivative financial instruments are used to manage differences in the amount, timing and duration of the Company's known or expected cash receipts and its known or expected cash payments principally related to the Company's loan portfolio.

The Company's objectives in using interest rate derivatives are to add stability to interest income and to manage its exposure to interest rate movements. To accomplish this objective, the Company used an interest rate collar as part of its interest rate risk management strategy. Interest rate collars designated as cash flow hedges involve the payments of variable-rate amounts if interest rates rise above the cap strike rate on the contract and receipts of variable-rate amounts if interest rates fall below the floor strike rate on the contract. These derivative contracts were used to hedge the variable cash flows associated with existing variable-rate assets.

With respect to derivatives designated and that qualify as cash flow hedges of interest rate risk, the gain or loss on the derivative is recorded in accumulated other comprehensive income and subsequently reclassified into interest income in the same period(s) during which the hedged transaction affects earnings. Amounts reported in accumulated other comprehensive income related to derivatives are reclassified to interest income as interest payments are received on the Company's variable-rate assets. During the next 12 months, the Company estimates that there will be \$10.4 million reclassified as an increase to interest income.

The Company may use derivatives to hedge the risk or changes in the fair values of interest rate lock commitments and residential mortgage loans held for sale. These derivatives are not 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 interest rate forward loan sales contracts in its derivative risk management strategy.

The Company enters into forward delivery contracts to sell residential mortgage loans 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 interest rate lock 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 during the years ended December 31, 2021, 2020 and 2019. 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, 2021 and 2020, the Bank had commitments to originate mortgage loans held for sale totaling \$21.8 million and \$31.9 million, respectively and forward sales commitments of \$18.5 million and \$26.5 million, respectively, which are used to hedge both on-balance sheet and off-balance sheet exposures.

In addition, the Company periodically enters into certain commercial loan interest rate swap agreements in order to provide commercial loan customers the ability to convert from variable to fixed interest rates. Under these agreements, the Company enters into a variable-rate loan agreement with a customer in addition to a swap agreement. This swap agreement effectively converts the customer's variable rate loan into a fixed rate loan. The Company then enters into a corresponding swap agreement with a third party in order to offset its exposure on the variable and fixed components of the customer agreement. As the interest rate swap agreements with the customers and third parties are not designated as hedges under the Derivatives and Hedging topic of the FASB ASC, the instruments are marked to market in earnings. The notional amount of open interest rate swap agreements at December 31, 2021 and 2020 was \$570.2 million and \$597.9 million, respectively.

The following table presents the fair value of derivatives, as well as their classification on the Balance Sheet at December 31, 2021 and 2020:

Asset Derivatives				Liability Derivatives			
2021		2020		2021		2020	
Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
<i>(in thousands)</i>							

Derivatives not designated as hedging instruments:

Interest rate lock commitments	Other assets	\$ 356	Other assets	\$ 1,096	Other liabilities	\$ —	Other liabilities	\$ —
Interest rate forward loan sales contracts	Other assets	\$ —	Other assets	\$ —	Other liabilities	\$ 27	Other liabilities	\$ 165
Interest rate swap contracts	Other assets	\$ 24,257	Other assets	\$ 46,184	Other liabilities	\$ 24,257	Other liabilities	\$ 46,637

The table below presents the effect of cash flow hedge accounting on accumulated other comprehensive income for the years ended December 31, 2021 and 2020:

	Amount of Gain or (Loss) Recognized in Accumulated Other Comprehensive Income on Derivative		Location of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income	Amount of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income					
	Years Ended December 31,			Years Ended December 31,					
	2021	2020		2021	2020				
	(in thousands)								
Interest rate collar	\$	—	\$	26,074	Interest income	\$	10,441	\$	8,418

In January 2019, the Company entered into a \$500.0 million notional interest rate collar with a five-year term. In October 2020, the collar was terminated and resulted in a \$34.4 million realized gain that was recorded in accumulated other comprehensive income, net of deferred income taxes. The gain will amortize through February 2024 into interest income. The gain will be amortized in this manner as long as the cash flows pertaining to the hedged item are expected to occur.

The following table summarizes the types of derivatives not designated as hedging instruments and the gains (losses) recorded during the years ended December 31, 2021, 2020 and 2019:

	Years ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Interest rate lock commitments	\$ (740)	\$ 1,096	\$ —
Interest rate forward loan sales contracts	139	(165)	—
Interest rate swap contracts	50	(452)	(1)
Total derivative gains (losses)	<u>\$ (551)</u>	<u>\$ 479</u>	<u>\$ (1)</u>

The gains and losses on the Company's mortgage banking derivatives are included in loan revenue. Mark-to-market gains and losses on the Company's interest rate swap contracts are recorded to "Other" noninterest expense.

The Company is party to interest rate swap contracts, interest rate collar and repurchase agreements that are subject to enforceable master netting arrangements or similar agreements. Under these agreements, the Company may have the right to net settle multiple contracts with the same counterparty.

The following tables show the gross interest rate swap contracts, collar agreements and repurchase agreements in the Consolidated Balance Sheets and the respective collateral received or pledged in the form of cash or other financial instruments. The collateral amounts in these tables are limited to the outstanding balances of the related asset or liability. Therefore, instances of overcollateralization are not shown.

	Gross Amounts of Recognized Assets/ Liabilities	Gross Amounts Offset in the Consolidated Balance Sheets	Net Amounts of Assets/Liabilities Presented in the Consolidated Balance Sheets	Gross Amounts Not Offset in the Consolidated Balance Sheets	
				Collateral Pledged/ Received	Net Amount
December 31, 2021	(in thousands)				
Assets					
Interest rate swap contracts	\$ 24,257	\$ —	\$ 24,257	\$ (450)	\$ 23,807
Liabilities					
Interest rate swap contracts	\$ 24,257	\$ —	\$ 24,257	\$ (20,747)	\$ 3,510
Repurchase agreements	\$ 86,013	\$ —	\$ 86,013	\$ (86,013)	\$ —
December 31, 2020					
Assets					
Interest rate swap contracts	\$ 46,184	\$ —	\$ 46,184	\$ —	\$ 46,184
Liabilities					
Interest rate swap contracts	\$ 46,637	\$ —	\$ 46,637	\$ (46,637)	\$ —
Repurchase agreements	\$ 73,859	\$ —	\$ 73,859	\$ (73,859)	\$ —

The Company's agreements with each of its derivative counterparties provide that if the Company defaults or is capable of being declared in default on any of its indebtedness, the Company could also be declared in default on its derivative obligations.

The following table presents the class of collateral pledged for repurchase agreements as well as the remaining contractual maturity of the repurchase agreements:

	Remaining contractual maturity of the agreements				
	Overnight and continuous	Up to 30 days	30 - 90 days	Greater than 90 days	Total
December 31, 2021	(in thousands)				
Class of collateral pledged for repurchase agreements					
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 86,013	\$ —	\$ —	\$ —	\$ 86,013
Gross amount of recognized liabilities for repurchase agreements					86,013
Amounts related to agreements not included in offsetting disclosure					\$ —

The collateral utilized for the Company's repurchase agreements is subject to market fluctuations as well as prepayments of principal. The Company monitors the risk of the fair value of its pledged collateral falling below acceptable amounts based on the type of the underlying repurchase agreement. The pledged collateral related to the Company's \$86.0 million sweep repurchase agreements, which mature on an overnight basis, is monitored on a daily basis as the underlying sweep accounts can have frequent transaction activity and the amount of pledged collateral is adjusted as necessary.

18. Employee Benefit Plans

401(k) Plan

The Company maintains defined contribution and profit sharing plans in conformity with the provisions of section 401(k) of the Internal Revenue Code. The Columbia Bank 401(k) Plan, permits Columbia Bank employees who are at least 18 years of age to contribute up to 75% of their eligible compensation to the 401(k) Plan starting on the first day of the month following their hire date. On a per pay period basis the Company is required to match 50% of employee contributions up to 3% of each employee's eligible compensation. The Company contributed \$4.0 million during 2021, \$3.8 million during 2020, and \$3.5 million during 2019, in matching funds to the 401(k) Plan. Additionally, as determined annually by the board of directors of the Company, the 401(k) Plan provides for a non-matching discretionary profit sharing contribution. The Company's discretionary profit sharing contributions were \$7.7 million during 2021, \$8.1 million during 2020 and \$7.3 million during 2019.

Employee Stock Purchase Plan

The Company maintains an ESP Plan in which substantially all employees of the Company are eligible to participate. The ESP Plan provides participants the opportunity to purchase common stock of the Company at a discounted price. Under the ESP Plan, participants can purchase common stock of the Company for 90% of the lowest price on either the first or last day in each of two look-back periods of six months from January 1st through June 30th and July 1st through December 31st of each calendar year. The 10% discount is recognized by the Company as compensation expense and does not have a material impact on net income or earnings per common share. Participants of the ESP Plan purchased 63,586 shares for \$2.3 million in 2021, 79,297 shares for \$2.2 million in 2020 and 57,201 shares for \$2.1 million in 2019. At December 31, 2021 there were 160,273 shares available for purchase under the ESP Plan.

Supplemental Compensation Plan

The Company maintains Unit Plans to provide benefits for certain employees. The Unit Plans generally vest over a 10 year period and provide a fixed annual benefit over the subsequent 10 year period. At December 31, 2021 and 2020, the liability associated with these plans was \$3.8 million and \$4.0 million. Expense associated with these plans for the years ended December 31, 2021, 2020 and 2019 was \$363 thousand, \$488 thousand and \$415 thousand, respectively.

Supplemental Executive Retirement Plan

The Company maintains a SERP, a nonqualified deferred compensation plan that provides retirement benefits to certain highly compensated executives. The SERP is unsecured and unfunded and there are no program assets. The SERP projected benefit obligation, which represents the vested net present value of future payments to individuals under the plan is accrued over the estimated remaining term of employment of the participants and has been determined by actuarial valuation using a discount rate of 2.84% for 2021 and 2.51% for 2020. Additional assumptions and features of the plan are a normal retirement age of 65 and a 2% annual cost of living benefit adjustment. The projected benefit obligation is included in “Other liabilities” on the Consolidated Balance Sheets.

The following table reconciles the accumulated liability for the projected benefit obligation:

	December 31,	
	2021	2020
	(in thousands)	
Balance, beginning of year	\$ 27,402	\$ 24,914
Established through acquisitions	4,889	—
Actuarial loss (gain)	(732)	2,836
Benefit expense	1,735	1,887
Benefit payments	(1,200)	(2,235)
Balance, end of year	<u>\$ 32,094</u>	<u>\$ 27,402</u>

The benefits expected to be paid in conjunction with the SERP are presented in the following table:

	Years Ending December 31,	
	(in thousands)	
2022	\$	1,571
2023		1,848
2024		2,137
2025		2,329
2026		2,291
2027 through 2031		10,088
Total	<u>\$</u>	<u>20,264</u>

19. Commitments and Contingent Liabilities

Financial Instruments with Off-Balance Sheet Risk - In the normal course of business, the Company makes loan commitments (typically unfunded loans and unused lines of credit) and issues standby letters of credit to accommodate the financial needs of its customers.

Standby letters of credit commit the Company to make payments on behalf of customers under specified conditions. Historically, no significant losses have been incurred by the Company under standby letters of credit. Both arrangements have credit risk essentially the same as that involved in extending loans to customers and are subject to the Company’s normal credit policies, including collateral requirements, where appropriate. At December 31, 2021 and 2020, the Company’s loan commitments were \$3.50 billion and \$2.80 billion, respectively. Standby letters of credit were \$36.0 million and \$29.9 million at December 31, 2021 and 2020, respectively.

Legal Proceedings - The Company and its subsidiaries are from time to time defendants in and are threatened with various legal proceedings arising from their regular business activities. Management, after consulting with legal counsel, is of the opinion that the ultimate liability, if any, resulting from these pending or threatened actions and proceedings will not have a material effect on the financial statements of the Company.

20. Shareholders' Equity

Dividends

The following summarizes the dividend activity for the year ended December 31, 2021:

Declared	Regular Cash Dividends Per Common Share	Record Date	Paid Date
January 28, 2021	\$ 0.28	February 10, 2021	February 24, 2021
April 29, 2021	\$ 0.28	May 12, 2021	May 26, 2021
July 29, 2021	\$ 0.28	August 11, 2021	August 25, 2021
September 30, 2021	\$ 0.30	October 13, 2021	October 27, 2021

Subsequent to year end, on January 19, 2022, the Company declared a regular quarterly cash dividend of \$0.30 per common share payable on February 16, 2022, to shareholders of record at the close of business on February 2, 2022.

The payment of cash dividends is subject to federal regulatory requirements for capital levels and other restrictions. In addition, the cash dividends paid by Columbia Bank to the Company are subject to both federal and state regulatory requirements.

Share Repurchase Program:

On October 28, 2020, the board of directors approved a stock repurchase program to purchase up to 3.5 million shares, up to a maximum aggregate purchase price of \$100.0 million, which expired on December 31, 2021. As of December 31, 2021, no shares had been purchased under this plan.

21. Accumulated Other Comprehensive Income

The following table shows changes in accumulated other comprehensive income (loss) by component for the years ended December 31, 2021, 2020 and 2019:

	Unrealized Gains and Losses on Available for Sale Securities (1)	Unrealized Gains and Losses on Pension Plan Liability (1)	Unrealized Gains and Losses on Hedging Instruments (1)	Total (1)
Year Ended December 31, 2021	<i>(in thousands)</i>			
Beginning balance	\$ 163,174	\$ (5,833)	\$ 24,854	\$ 182,195
Other comprehensive income (loss) before reclassifications	(137,482)	562	—	(136,920)
Amounts reclassified from accumulated other comprehensive income (2)	(2,558)	459	(8,014)	(10,113)
Net current-period other comprehensive income (loss)	(140,040)	1,021	(8,014)	(147,033)
Ending balance	<u>\$ 23,134</u>	<u>\$ (4,812)</u>	<u>\$ 16,840</u>	<u>\$ 35,162</u>
Year Ended December 31, 2020				
Beginning balance	\$ 33,038	\$ (3,974)	\$ 11,303	\$ 40,367
Other comprehensive income (loss) before reclassifications	130,355	(2,177)	20,012	148,190
Amounts reclassified from accumulated other comprehensive income (2)	(219)	318	(6,461)	(6,362)
Net current-period other comprehensive income (loss)	130,136	(1,859)	13,551	141,828
Ending balance	<u>\$ 163,174</u>	<u>\$ (5,833)</u>	<u>\$ 24,854</u>	<u>\$ 182,195</u>
Year Ended December 31, 2019				
Beginning balance	\$ (33,128)	\$ (2,177)	\$ —	\$ (35,305)
Other comprehensive income (loss) before reclassifications	67,802	(2,042)	11,760	77,520
Amounts reclassified from accumulated other comprehensive loss (2)	(1,636)	245	(457)	(1,848)
Net current-period other comprehensive income (loss)	66,166	(1,797)	11,303	75,672
Ending balance	<u>\$ 33,038</u>	<u>\$ (3,974)</u>	<u>\$ 11,303</u>	<u>\$ 40,367</u>

(1) All amounts are net of tax. Amounts in parentheses indicate debits.

(2) See following table for details about these reclassifications.

The following table shows details regarding the reclassifications from accumulated other comprehensive income for the years ended December 31, 2021, 2020 and 2019:

	Amount Reclassified from Accumulated Other Comprehensive Income			Affected line Item in the Consolidated Statement of Income
	Years Ended December 31,			
	2021	2020	2019	
	(in thousands)			
Unrealized gains on available for sale debt securities	\$ 315	\$ 285	\$ 2,132	Investment securities gains, net
Amortization of unrealized gains related to securities transfer	3,018	—	—	Taxable securities
	3,333	285	2,132	Total before tax
	(775)	(66)	(496)	Income tax provision
	<u>\$ 2,558</u>	<u>\$ 219</u>	<u>\$ 1,636</u>	Net of tax
Amortization of pension plan liability actuarial losses	\$ (598)	\$ (414)	\$ (319)	Compensation and employee benefits
	(598)	(414)	(319)	Total before tax
	139	96	74	Income tax provision
	<u>\$ (459)</u>	<u>\$ (318)</u>	<u>\$ (245)</u>	Net of tax
Unrealized gains from hedging instruments	\$ 10,441	\$ 8,418	\$ 595	Loans
	10,441	8,418	595	Total before tax
	(2,427)	(1,957)	(138)	Income tax provision
	<u>\$ 8,014</u>	<u>\$ 6,461</u>	<u>\$ 457</u>	Net of tax

22. Fair Value Accounting and Measurement

The Fair Value Measurements and Disclosures topic of the FASB ASC defines fair value, establishes a consistent framework for measuring fair value and expands disclosure requirements about fair value. We hold fixed and variable rate interest-bearing securities, investments in marketable equity securities and certain other financial instruments, which are carried at fair value. Fair value is determined based upon quoted prices when available or through the use of alternative approaches, such as matrix or model pricing, when market quotes are not readily accessible or available.

The valuation techniques are based upon observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our own market assumptions. These two types of inputs create the following fair value hierarchy:

Level 1 – Quoted prices for identical instruments in active markets that are accessible at the measurement date.

Level 2 – Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 – Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable.

Fair values are determined as follows:

Debt securities at fair value are priced using a combination of market activity, industry recognized information sources, yield curves, discounted cash flow models and other factors. These fair value calculations are considered a Level 2 input method under the provisions of the Fair Value Measurements and Disclosures topic of the FASB ASC for all debt securities.

Loans held for sale include the fair value of residential mortgage loans originated as held for sale 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 fair value of the interest rate lock commitments and interest rate forward loan sales contracts 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.

Interest rate swap contracts and the interest rate collar are valued in models, which use as their basis, readily observable market parameters and are classified within Level 2 of the valuation hierarchy.

The following table sets forth the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis at December 31, 2021 and 2020 by level within the fair value hierarchy. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement:

	Fair Value at December 31, 2021	Fair Value Measurements at Reporting Date Using			
		Level 1	Level 2	Level 3	
		(in thousands)			
Assets					
Debt securities available for sale:					
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 3,745,601	\$ —	\$ 3,745,601	\$ —	
Other asset-backed securities	463,063	—	463,063	—	
State and municipal securities	997,291	—	997,291	—	
U.S. government agency and government-sponsored enterprise securities	252,576	—	252,576	—	
U.S. government securities	157,536	157,536	—	—	
Non-agency collateralized mortgage obligations	\$ 294,932	\$ —	\$ 294,932	\$ —	
Total debt securities available for sale	\$ 5,910,999	\$ 157,536	\$ 5,753,463	\$ —	
Loans held for sale	\$ 9,570	\$ —	\$ 9,570	\$ —	
Other assets:					
Interest rate lock commitments	\$ 356	\$ —	\$ —	\$ 356	
Interest rate swap contracts	\$ 24,257	\$ —	\$ 24,257	\$ —	
Liabilities					
Other liabilities:					
Interest rate forward loan sales contracts	\$ 27	\$ —	\$ 27	\$ —	
Interest rate swap contracts	\$ 24,257	\$ —	\$ 24,257	\$ —	

	Fair Value at December 31, 2020	Fair Value Measurements at Reporting Date Using			
		Level 1	Level 2	Level 3	
		(in thousands)			
Assets					
Debt securities available for sale:					
U.S. government agency and government-sponsored enterprise mortgage-backed securities and collateralized mortgage obligations	\$ 3,814,387	\$ —	\$ 3,814,387	\$ —	
Other asset-backed securities	357,479	—	357,479	—	
State and municipal securities	753,572	—	753,572	—	
U.S. government agency and government-sponsored enterprise securities	284,696	—	284,696	—	
Total debt securities available for sale	\$ 5,210,134	\$ —	\$ 5,210,134	\$ —	
Loans held for sale	\$ 14,760	\$ —	\$ 14,760	\$ —	
Other assets:					
Interest rate lock commitments	\$ 1,096	\$ —	\$ —	\$ 1,096	
Interest rate swap contracts	\$ 46,184	\$ —	\$ 46,184	\$ —	
Liabilities					
Other liabilities:					
Interest rate forward loan sales contracts	\$ 165	\$ —	\$ 165	\$ —	
Interest rate swap contracts	\$ 46,637	\$ —	\$ 46,637	\$ —	

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, 2021.

	Fair Value at December 31, 2021	Valuation Technique	Unobservable Input	Range (Weighted Average)
<i>(dollars in thousands)</i>				
Interest rate lock commitments	\$ 356	Internal pricing model	Pull-through rate	80.22% - 96.59% (87.84%)

	Fair Value at December 31, 2020	Valuation Technique	Unobservable Input	Range (Weighted Average)
<i>(dollars in thousands)</i>				
Interest rate lock commitments	\$ 1,096	Internal pricing model	Pull-through rate	75.43% - 96.63% (88.13%)

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).

The following table includes a rollforward of interest rate lock commitments which utilize Level 3 inputs to determine the fair value on a recurring basis.

	Years Ended December 31,	
	2021	2020
<i>(in thousands)</i>		
Balance at the beginning of the period	\$ 1,096	\$ —
Change included in earnings	7,051	2,795
Settlements	(7,791)	(1,699)
Balance at the end of the period	<u>\$ 356</u>	<u>\$ 1,096</u>

Nonrecurring Measurements

Certain assets and liabilities are measured at fair value on a nonrecurring basis after initial recognition such as collateral dependent loans. The following valuation techniques and inputs were used to estimate the fair value of collateral dependent loans and equity securities without readily determinable fair value.

Collateral dependent loans - A collateral dependent loan is a loan in which repayment is expected to be provided solely by the underlying collateral. The fair market value of the collateral is determined by either the discounted expected future cash flows from the operation of the collateral or the appraised value of the collateral, less costs to sell. The collateral dependent loan valuations are performed in conjunction with the allowance for credit losses process on a quarterly basis.

OREO - OREO is real property that the Bank has taken ownership of in partial or full satisfaction of a loan or loans. OREO is generally measured based on the property's fair market value as indicated by an appraisal or a letter of intent to purchase. OREO is initially recorded at the fair value less estimated costs to sell. This amount becomes the property's new basis. Any fair value adjustments based on the property's fair value less estimated costs to sell at the date of acquisition are charged to the allowance for credit losses, or in the event of a write-up without previous losses charged to the allowance for credit losses, a credit to earnings is recorded. Management periodically reviews OREO in an effort to ensure the property is recorded at its fair value, net of estimated costs to sell. Any fair value adjustments subsequent to acquisition are charged or credited to earnings.

Equity securities without readily determinable fair value - The Company measures equity securities without readily determinable fair values at cost less impairment (if any), plus or minus observable price changes from an identical or similar investment of the same issuer, with such changes recognized in earnings. Our equity securities without readily determinable fair values consist of 77,683 Visa Class B shares. These shares are currently subject to certain transfer restrictions and will be convertible into Visa Class A shares upon final resolution of certain litigation matters involving Visa. Please see Note 4 "Securities," for additional information.

The following table presents the carrying value of equity securities, without readily determinable fair values, still held as of December 31, 2021, that are measured under the measurement alternative and related adjustments recorded during the periods presented for those securities with observable price changes. These securities are included in the nonrecurring fair value tables when applicable price changes are observable.

	Years Ended December 31,	
	2021	2020
<i>in thousands</i>		
Equity securities without readily determinable fair values		
Carrying value, beginning of period	\$ 13,425	\$ —
Upward carrying value changes	—	13,425
Carrying value, end of period	<u>\$ 13,425</u>	<u>\$ 13,425</u>

The following table sets forth the Company's assets that were measured using fair value estimates on a nonrecurring basis during the years ended December 31, 2021 and 2020:

	Fair Value at December 31, 2021	Fair Value Measurements at Reporting Date Using			Gains (Losses) During the Year Ended December 31, 2021
		Level 1	Level 2	Level 3	
		<i>(in thousands)</i>			
Collateral dependent loans	\$ 7,615	\$ —	\$ —	\$ 7,615	\$ (1,976)
OREO	\$ 375	\$ —	\$ —	\$ 375	\$ (140)

	Fair Value at December 31, 2020	Fair Value Measurements at Reporting Date Using			Gains (Losses) During the Year Ended December 31, 2020
		Level 1	Level 2	Level 3	
		(in thousands)			
Collateral dependent loans	\$ 15,569	\$ —	\$ —	\$ 15,569	\$ (8,700)
OREO	525	—	—	525	(70)
Equity securities	13,425	—	13,425	—	13,425

The losses on collateral dependent loans disclosed above represent the amount of the allowance for credit losses and/or charge-offs during the period applicable to loans held at period end. The amount of the allowance is included in the ACL. The losses on OREO disclosed above represent the write-downs taken after foreclosure as a result of subsequent changes in valuation from updated appraisals that were recorded to earnings.

Quantitative information about Level 3 fair value measurements

The range and weighted average of the significant unobservable inputs used to fair value our Level 3 nonrecurring assets during 2021 and 2020, along with the valuation techniques used, are shown in the following tables:

	Fair Value at December 31, 2021	Valuation Technique	Unobservable Input	Range (Weighted Average) (1)
<i>(dollars in thousands)</i>				
Collateral dependent loans (2)	\$ 7,615	Fair Market Value of Collateral	Adjustment to Stated Value	0.00% - 100.00% (48.00%)
OREO	\$ 375	Fair Market Value of Collateral	Adjustment to Appraisal Value	N/A (3)

(1) Adjustment applied to appraisal value and stated value (in the case of fixed assets, accounts receivable and inventory).

(2) Collateral consists of accounts receivable, inventory, fixed assets, intangible assets and real estate.

(3) Quantitative disclosures are not provided for OREO because there were no adjustments made to the appraisal values or stated values during the period.

	Fair Value at December 31, 2020	Valuation Technique	Unobservable Input	Range (Weighted Average) (1)
<i>(dollars in thousands)</i>				
Collateral dependent loans (2)	\$ 15,569	Fair Market Value of Collateral	Adjustment to Stated Value	0.00% - 100.00% (41.36%)
OREO	\$ 525	Fair Market Value of Collateral	Adjustment to Appraisal Value	N/A (3)

(1) Adjustment applied to appraisal value and stated value (in the case of fixed assets, accounts receivable and inventory).

(2) Collateral consists of accounts receivable, inventory, fixed assets, real estate and cash.

(3) Quantitative disclosures are not provided for OREO because there were no adjustments made to the appraisal values or stated values during the period.

The following tables summarize carrying amounts and estimated fair values of selected financial instruments for the periods indicated:

	December 31, 2021				
	Carrying Amount	Fair Value	Level 1	Level 2	Level 3
	(in thousands)				
Assets					
Cash and due from banks	\$ 153,414	\$ 153,414	\$ 153,414	\$ —	\$ —
Interest-earning deposits with banks	671,300	671,300	671,300	—	—
Debt securities available for sale	5,910,999	5,910,999	157,536	5,753,463	—
Debt securities held to maturity	2,148,327	2,122,606	—	2,122,606	—
FHLB stock	10,280	10,280	—	10,280	—
Loans held for sale	9,774	9,774	—	9,774	—
Loans	10,486,359	10,679,349	—	—	10,679,349
Interest rate contracts	24,257	24,257	—	24,257	—
Interest rate lock commitments	356	356	—	—	356
Liabilities					
Time deposits	\$ 445,957	\$ 430,682	\$ —	\$ 430,682	\$ —
FHLB advances and FRB borrowings	7,359	8,752	—	8,752	—
Repurchase agreements	86,013	86,013	—	86,013	—
Subordinated debentures	10,000	10,125	—	10,125	—
Junior subordinated debentures	10,310	9,927	—	9,927	—
Interest rate contracts	24,257	24,257	—	24,257	—
Interest rate forward loan sales contracts	27	27	—	27	—
	December 31, 2020				
	Carrying Amount	Fair Value	Level 1	Level 2	Level 3
	(in thousands)				
Assets					
Cash and due from banks	\$ 218,899	\$ 218,899	\$ 218,899	\$ —	\$ —
Interest-earning deposits with banks	434,867	434,867	434,867	—	—
Debt securities available for sale	5,210,134	5,210,134	—	5,210,134	—
FHLB stock	10,280	10,280	—	10,280	—
Loans held for sale	26,481	26,481	—	26,481	—
Loans	9,278,520	9,720,592	—	—	9,720,592
Interest rate contracts	46,184	46,184	—	46,184	—
Interest rate lock commitments	1,096	1,096	—	—	1,096
Liabilities					
Time deposits	\$ 338,845	\$ 338,815	\$ —	\$ 338,815	\$ —
FHLB advances and FRB borrowings	7,414	9,295	—	9,295	—
Repurchase agreements	73,859	73,859	—	73,859	—
Subordinated debentures	35,092	35,414	—	35,414	—
Interest rate contracts	46,637	46,637	—	46,637	—
Interest rate forward loan sales contracts	165	165	—	165	—

The following table presents the difference between the aggregate fair value and the aggregate unpaid principal balance of loans held for sale sold under the mandatory delivery method and accounted for under the fair value option as of December 31, 2021 and 2020:

December 31,					
2021			2020		
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
<i>(in thousands)</i>					
\$ 9,570	\$ 9,401	\$ 169	\$ 14,760	\$ 14,252	\$ 508

Residential mortgage loans held for sale that are sold under the mandatory delivery method and 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 in loan revenue. For the year ended December 31, 2021, the Company recorded a net decrease in fair value of \$339 thousand, and for the year ended December 31, 2020, the Company recorded a net increase in fair value of \$508 thousand, representing the change in fair value reflected in earnings. For the year ended December 31, 2019, there were no such loans held for sale under the mandatory delivery method. At December 31, 2021, there were no residential mortgage loans held for sale for which the fair value option was elected that were 90 days or more past due, in nonaccrual status or both.

23. Earnings Per Common Share

The Company applies the two-class method of computing basic and diluted EPS. Under the two-class method, EPS is determined for each class of common stock and participating security according to dividends declared and participation rights in undistributed earnings. The Company has issued restricted shares under share-based compensation plans which qualify as participating securities.

The following table sets forth the computation of basic and diluted EPS for the periods indicated:

	Years Ended December 31,		
	2021	2020	2019
<i>(in thousands except per share amounts)</i>			
Basic EPS:			
Net income	\$ 202,820	\$ 154,244	\$ 194,451
Less: Earnings allocated to participating securities			
Nonvested restricted shares	330	712	1,530
Earnings allocated to common shareholders	\$ 202,490	\$ 153,532	\$ 192,921
Weighted average common shares outstanding	72,683	70,835	71,999
Basic earnings per common share	\$ 2.79	\$ 2.17	\$ 2.68
Diluted EPS:			
Earnings allocated to common shareholders	\$ 202,490	\$ 153,532	\$ 192,921
Weighted average common shares outstanding	72,683	70,835	71,999
Dilutive effect of equity awards and warrants	190	45	33
Weighted average diluted common shares outstanding	72,873	70,880	72,032
Diluted earnings per common share	\$ 2.78	\$ 2.17	\$ 2.68
Potentially dilutive RSAs and RSUs that were not included in the computation of diluted EPS because to do so would be anti-dilutive	212	289	8

24. Share-Based Payments

At December 31, 2021, the Company had one equity compensation plan (the "Plan"), which is shareholder approved, that provides for the granting of share options, share units and shares to eligible employees and directors up to 3,050,000 shares.

Share Units: Restricted share units provide for an interest in Company common stock to the recipient, with such units held in escrow until certain conditions are met. Share units provide for vesting requirements that include time-based, performance-based, or market-based conditions. Recipients of restricted units do not pay any cash consideration to the Company for the units and the holders of the restricted units do not have voting rights. For share units issued under the equity incentive plan approved in 2018, the holder accrues dividends, which are paid out when the units vest and the shares are issued. The fair value of time-based and performance-based units is equal to the fair market value of the Company's common stock on the grant date. The fair value of market-based units is estimated on the grant date using the Monte Carlo simulation model. The year ended December 31, 2020 was the first year the Company issued RSU's; accordingly, there were no RSU's granted or outstanding for the years ended December 31, 2019.

A summary of changes in the Company's nonvested RSUs and related information for the year ended December 31, 2021 is presented below:

	Units	Weighted Average Grant-Date Fair Value
Nonvested at December 31, 2019	—	\$ —
Granted	115,542	\$ 32.85
Forfeited	(3,641)	\$ 34.36
Nonvested at December 31, 2020	111,901	\$ 32.85
Granted	86,713	\$ 47.11
Vested	(12,994)	\$ 33.48
Forfeited	(3,050)	\$ 33.71
Nonvested at December 31, 2021	182,570	\$ 40.05

Share Awards: Restricted share awards provide for the immediate issuance of shares of Company common stock to the recipient, with such shares held in escrow until certain conditions are met. Share awards provide for vesting requirements that include time-based, performance-based, or market-based conditions. Recipients of restricted shares do not pay any cash consideration to the Company for the shares and the holders of the restricted shares have voting rights. For share awards issued under the equity incentive plan approved in 2018, the holder accrues dividends, which are paid out when the shares vest. For any awards granted prior to the 2018 equity incentive plan, the holder receives dividends whether or not the shares have vested. The fair value of time-based and performance-based share awards is equal to the fair market value of the Company's common stock on the grant date. The fair value of market-based share awards is estimated on the grant date using the Monte Carlo simulation model.

A summary of changes in the Company's nonvested RSAs and related information for the years ended December 31, 2021, 2020 and 2019 is presented below:

	Shares	Weighted Average Grant-Date Fair Value
Nonvested at January 1, 2019	814,140	\$ 36.43
Granted	405,516	\$ 35.08
Vested	(268,253)	\$ 32.50
Forfeited	(62,386)	\$ 37.12
Nonvested at December 31, 2019	889,017	\$ 36.96
Granted	299,007	\$ 33.64
Vested	(231,805)	\$ 35.01
Forfeited	(90,588)	\$ 36.50
Nonvested at December 31, 2020	865,631	\$ 36.38
Granted	257,298	\$ 44.83
Vested	(324,222)	\$ 37.57
Forfeited	(75,696)	\$ 36.76
Nonvested at December 31, 2021	723,011	\$ 38.57

As of December 31, 2021, there was \$19.6 million of total unrecognized compensation cost related to nonvested share-based compensation arrangements granted under the Plan. That cost is expected to be recognized over a weighted average period of 1.6 years. The total fair value, as measured on the date of vesting, of shares vested during the years ended December 31, 2021, 2020, and 2019 was \$12.6 million, \$8.1 million, and \$8.7 million, respectively.

Share Options: There were no options exercised or outstanding during the years ended December 31, 2021 and 2020. The total intrinsic value of options exercised during the year ended December 31, 2019 was \$108 thousand. There were no options granted during the years ended December 31, 2021, 2020 and 2019. There were no options that vested during the years ended December 2021, 2020 and 2019.

It is the Company's policy to issue new shares for share option exercises, share units vested and share awards. The Company expenses awards of share options and shares on a straight-line basis over the related vesting term of the award. For the years ended December 31, 2021, 2020 and 2019, the Company recognized pre-tax share-based compensation expense of \$14.9 million, \$10.7 million and \$9.3 million, respectively.

25. Income Tax

The components of income tax expense are as follows:

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Current expense:			
Federal	\$ 50,708	\$ 44,094	\$ 40,471
State	9,610	7,822	6,359
Total current tax expense	<u>\$ 60,318</u>	<u>\$ 51,916</u>	<u>\$ 46,830</u>
Deferred tax expense (benefit):			
Federal	\$ (5,445)	\$ (12,078)	\$ 60
State	(1,184)	(1,690)	270
Total deferred tax expense (benefit)	<u>(6,629)</u>	<u>(13,768)</u>	<u>330</u>
Total	<u><u>\$ 53,689</u></u>	<u><u>\$ 38,148</u></u>	<u><u>\$ 47,160</u></u>

Significant components of the Company's deferred tax assets and liabilities are as follows:

	December 31,	
	2021	2020
	<i>(in thousands)</i>	
Deferred tax assets:		
ACL	\$ 39,378	\$ 36,906
Lease liability	15,973	15,823
Deferred compensation	14,887	11,658
Stock options and restricted stock	3,186	2,599
OREO	50	16
Nonaccrual interest	118	102
Net operating losses and credit carryforwards	2,898	3,304
Other	1,824	278
Total deferred tax assets	78,314	70,686
Deferred tax liabilities:		
Asset purchase tax basis difference	(5,052)	(6,590)
Right of use asset	(14,510)	(14,501)
FHLB stock dividends	(810)	(789)
Deferred loan fees	(5,957)	(5,695)
Unrealized gain on investment securities	(7,254)	(49,837)
Unrealized gain on equity securities	(3,231)	(3,147)
Purchase accounting	(14,211)	(7,526)
Depreciation	(3,304)	(2,427)
Cash flow hedge	(5,280)	(7,591)
Other	(130)	(112)
Total deferred tax liabilities	(59,739)	(98,215)
Net deferred tax asset (liability)	\$ 18,575	\$ (27,529)

A reconciliation of the Company's effective income tax rate with the federal statutory tax rate is as follows:

	Years Ended December 31,					
	2021		2020		2019	
	Amount	Percent	Amount	Percent	Amount	Percent
	<i>(dollars in thousands)</i>					
Income tax based on statutory rate	\$ 53,867	21 %	\$ 40,402	21 %	\$ 50,738	21 %
Increase (decrease) resulting from:						
Tax exempt instruments	(6,306)	(2)%	(5,987)	(3)%	(6,771)	(3)%
Bank owned life insurance	(1,444)	(1)%	(1,348)	(1)%	(1,963)	(1)%
State income tax, net of federal benefit	7,892	3 %	4,844	3 %	5,134	2 %
Other, net	(320)	— %	237	— %	22	1 %
Income tax provision	\$ 53,689	21 %	\$ 38,148	20 %	\$ 47,160	20 %

As of December 31, 2021 and 2020, we had no unrecognized tax benefits. Our policy is to recognize interest and penalties on unrecognized tax benefits in "Provision for income taxes" in the Consolidated Statements of Income. There were no amounts related to interest and penalties recognized for the years ended December 31, 2021 and 2020. As a result of recent acquisitions, the Company has net operating loss carryforwards in the federal, Idaho and Oregon jurisdictions of \$11.3 million, \$8.4 million and \$61 thousand, respectively, which begin to expire in 2024.

On March 27, 2020, the CARES Act was enacted in response to the COVID-19 pandemic. The CARES Act, among other things, permits NOL carryovers and carrybacks to offset 100% of taxable income for taxable years beginning before 2021. In addition, the CARES Act allows NOLs incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes. The Company has evaluated the impact of the CARES Act and determined that none of the changes would result in a material income tax benefit to the Company.

On December 27, 2020, the Consolidated Appropriations Act, 2021 was signed into law and extends several provisions of the CARES Act. The Company has determined that neither this Act nor changes to income tax laws or regulations in other jurisdictions have a significant impact on our effective tax rate.

26. Regulatory Capital Requirements

The Company (on a consolidated basis) and its banking subsidiary are subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the Company and its banking subsidiary's financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Company and its banking subsidiary must meet specific capital guidelines that involve quantitative measures of assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings, and other factors. Prompt corrective action provisions are not applicable to bank holding companies.

Basel III capital requirements became effective on January 1, 2015. The capital requirements, among other things (i) specify that Tier 1 capital consists of CET1, and "Additional Tier 1 capital" instruments meeting specified requirements, (ii) define CET1 narrowly by requiring that most deductions/adjustments to regulatory capital measures be made to CET1 and not to the other components of capital and (iii) expand the scope of the deductions/adjustments to capital as compared to existing regulations. Under the requirements that are now effective, the minimum capital ratios are (i) 4.5% CET1 to risk-weighted assets, (ii) 6% Tier 1 capital to risk-weighted assets, (iii) 8% total capital to risk-weighted assets and (iv) 4% Tier 1 capital to average total assets (Tier 1 leverage). The Company and the Bank have made the one-time election to opt-out of including accumulated other comprehensive income items in regulatory capital calculations.

The Capital Rules also require a capital conservation buffer designed to absorb losses during periods of economic stress. The capital conservation buffer is composed entirely of CET1, on top of these minimum risk-weighted asset ratios. In addition, the Capital Rules provide for a countercyclical capital buffer applicable only to certain covered institutions. We do not expect the countercyclical capital buffer to be applicable to us or the Bank. Banking institutions with a ratio of CET1 to risk-weighted assets above the minimum but below the capital conservation buffer (or below the combined capital conservation buffer and countercyclical capital buffer, when the latter is applied) will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall.

The implementation of the capital conservation buffer began on January 1, 2016 at the 0.625% level and was fully phased in over a three-year period (increasing by 0.625% on each subsequent January 1, until it reached 2.5% on January 1, 2019). As a result, the Company and the Bank are now required to maintain such additional capital conservation buffer of 2.5% of CET1, effectively resulting in minimum ratios of (i) 7% CET1 to risk-weighted assets, (ii) 8.5% Tier 1 capital to risk-weighted assets, and (iii) 10.5% total capital to risk-weighted assets. At December 31, 2021, the capital conservation buffer for the Company and the Bank was 6.21% and 6.18%, respectively. As of December 31, 2021, we and the Bank met all capital adequacy requirements under the Capital Rules.

FDIC regulations set forth the qualifications necessary for a bank to be classified as "well-capitalized," primarily for assignment of FDIC insurance premium rates. To qualify as "well-capitalized," banks must have a CET1 risk-adjusted capital ratio of 6.5%, a Tier I risk-adjusted capital ratio of at least 8%, a total risk-adjusted capital ratio of at least 10% and a leverage ratio of at least 5%. Failure to qualify as "well-capitalized" can negatively impact a bank's ability to expand and to engage in certain activities.

As of December 31, 2021, the most recent notification from the FDIC categorized Columbia Bank as well-capitalized under the regulatory framework for prompt corrective action. To be categorized as well-capitalized, an institution must maintain minimum CET1 risk-based, Tier 1 risk-based, total risk-based and Tier 1 leverage ratios as set forth in the following table. There are no conditions or events since the notification that management believes have changed Columbia Bank's category.

The Company and its banking subsidiary's actual capital amounts and ratios as of December 31, 2021 and 2020 are presented in the following table:

	Actual		Minimum Required For Capital Adequacy Purposes		Minimum Required Plus Capital Conservation Buffer		To Be Well Capitalized Under Prompt Corrective Action Provision	
	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
<i>(dollars in thousands)</i>								
December 31, 2021								
CET1 Capital (to risk-weighted assets):								
The Company	\$ 1,710,981	13.01 %	\$ 591,585	4.50 %	\$ 920,244	7.00 %	N/A	N/A
Columbia Bank	\$ 1,716,186	13.06 %	\$ 591,154	4.50 %	\$ 919,754	7.00 %	\$ 853,890	6.50 %
Tier 1 Capital (to risk-weighted assets):								
The Company	\$ 1,710,981	13.01 %	\$ 788,780	6.00 %	\$ 1,117,439	8.50 %	N/A	N/A
Columbia Bank	\$ 1,716,186	13.06 %	\$ 788,206	6.00 %	\$ 1,116,625	8.50 %	\$ 1,050,941	8.00 %
Total Capital (to risk-weighted assets):								
The Company	\$ 1,868,192	14.21 %	\$ 1,051,707	8.00 %	\$ 1,380,366	10.50 %	N/A	N/A
Columbia Bank	\$ 1,863,397	14.18 %	\$ 1,050,941	8.00 %	\$ 1,379,360	10.50 %	\$ 1,313,677	10.00 %
Tier 1 Capital Leverage (to average assets):								
The Company	\$ 1,710,981	8.55 %	\$ 800,615	4.00 %	\$ 800,615	4.00 %	N/A	N/A
Columbia Bank	\$ 1,716,186	8.60 %	\$ 798,206	4.00 %	\$ 798,206	4.00 %	\$ 997,757	5.00 %
December 31, 2020								
CET1 Capital (to risk-weighted assets):								
The Company	\$ 1,390,958	12.88 %	\$ 486,080	4.50 %	\$ 756,125	7.00 %	N/A	N/A
Columbia Bank	\$ 1,411,834	13.08 %	\$ 485,775	4.50 %	\$ 755,651	7.00 %	\$ 701,676	6.50 %
Tier 1 Capital (to risk-weighted assets):								
The Company	\$ 1,390,958	12.88 %	\$ 648,107	6.00 %	\$ 918,152	8.50 %	N/A	N/A
Columbia Bank	\$ 1,411,834	13.08 %	\$ 647,700	6.00 %	\$ 917,576	8.50 %	\$ 863,601	8.00 %
Total Capital (to risk-weighted assets):								
The Company	\$ 1,561,020	14.45 %	\$ 864,143	8.00 %	\$ 1,134,187	10.50 %	N/A	N/A
Columbia Bank	\$ 1,546,804	14.33 %	\$ 863,601	8.00 %	\$ 1,133,476	10.50 %	\$ 1,079,501	10.00 %
Tier 1 Capital Leverage (to average assets):								
The Company	\$ 1,390,958	8.86 %	\$ 628,112	4.00 %	\$ 628,112	4.00 %	N/A	N/A
Columbia Bank	\$ 1,411,834	9.08 %	\$ 622,171	4.00 %	\$ 622,171	4.00 %	\$ 777,714	5.00 %

27. Parent Company Financial Information

Condensed Balance Sheets—Parent Company Only

	December 31,	
	2021	2020
	<i>(in thousands)</i>	
Assets		
Cash	\$ 1,979	\$ 2,301
Interest-earning deposits	3,786	4,933
Total cash and cash equivalents	5,765	7,234
Investment in banking subsidiary	2,589,218	2,363,692
Investment in other subsidiaries	7,175	6,215
Goodwill	4,729	4,729
Other assets	2,525	1,668
Total assets	<u>\$ 2,609,412</u>	<u>\$ 2,383,538</u>
Liabilities and Shareholders' Equity		
Subordinated debentures	\$ 10,000	\$ 35,092
Junior subordinated debentures	10,310	—
Other liabilities	360	839
Total liabilities	20,670	35,931
Shareholders' equity	2,588,742	2,347,607
Total liabilities and shareholders' equity	<u>\$ 2,609,412</u>	<u>\$ 2,383,538</u>

Condensed Statements of Income—Parent Company Only

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Income			
Dividend from banking subsidiary	\$ 108,000	\$ 89,000	\$ 168,000
Dividend from other subsidiaries	500	—	—
Interest-earning deposits	16	13	100
Other income	36	37	68
Total income	108,552	89,050	168,168
Expense			
Compensation and employee benefits	856	758	791
Subordinated debentures interest expense	1,932	1,871	1,871
Other borrowings interest expense	52	12	—
Other expense	3,542	1,943	2,111
Total expenses	6,382	4,584	4,773
Income before income tax benefit and equity in undistributed earnings of subsidiaries	102,170	84,466	163,395
Income tax benefit	(1,329)	(952)	(967)
Income before equity in undistributed earnings of subsidiaries	103,499	85,418	164,362
Equity in undistributed earnings of subsidiaries	99,321	68,826	30,089
Net income	<u>\$ 202,820</u>	<u>\$ 154,244</u>	<u>\$ 194,451</u>

Condensed Statements of Cash Flows—Parent Company Only

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Operating Activities			
Net income	\$ 202,820	\$ 154,244	\$ 194,451
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed earnings of subsidiaries	(99,321)	(68,826)	(30,089)
Stock-based compensation expense	14,926	10,737	9,271
Net changes in other assets and liabilities	(1,436)	(17)	(133)
Net cash provided by operating activities	116,989	96,138	173,500
Investing Activities			
Net cash received in business combinations	2,173	—	—
Net cash provided by investing activities	2,173	—	—
Financing Activities			
Common stock dividends	(83,841)	(96,215)	(102,265)
Repayment of subordinated debentures	(35,000)	—	—
Purchase and retirement of common stock	(4,140)	(2,522)	(2,792)
Purchase of treasury shares	—	(20,000)	(50,834)
Proceeds from exercise of stock options	2,350	2,028	2,025
Net cash used in financing activities	(120,631)	(116,709)	(153,866)
Increase (decrease) in cash and cash equivalents	(1,469)	(20,571)	19,634
Cash and cash equivalents at beginning of year	7,234	27,805	8,171
Cash and cash equivalents at end of year	\$ 5,765	\$ 7,234	\$ 27,805

Supplemental disclosure of noncash investing and financing activities:

Common stock issued in connection with acquisition	\$ 256,061	\$ —	\$ —
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28. Revenue from Contracts with Customers

The following table shows the disaggregation of revenue from contracts with customers for the period indicated:

	Years Ended December 31,		
	2021	2020	2019
	<i>(in thousands)</i>		
Noninterest income:			
Revenue from contracts with customers:			
Deposit account and treasury management fees	\$ 27,107	\$ 27,019	\$ 35,695
Card revenue	18,503	13,928	15,198
Financial services and trust revenue	15,753	12,830	12,799
Total revenue from contracts with customers	61,363	53,777	63,692
Other sources of noninterest income	32,731	50,723	33,489
Total noninterest income	\$ 94,094	\$ 104,500	\$ 97,181

For additional information, see Note 1. “Summary of Significant Accounting Policies.”

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

An evaluation was carried out under the supervision and with the participation of the Company's management, including the CEO and CFO, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934). Based on that evaluation, the CEO and CFO have concluded that as of the end of the period covered by this report, our disclosure controls and procedures are effective in ensuring that the information required to be disclosed by us in the reports we file or submit under the Securities Exchange Act of 1934 is (i) accumulated and communicated to our management (including the CEO and CFO) to allow timely decisions regarding required disclosure, and (ii) recorded, processed, summarized and reported within the time periods specified in the Security Exchange Commission's rules and forms.

Internal Control Over Financial Reporting

Management's Annual Report On Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting. The internal control system has been designed to provide reasonable assurance to the Company's management and board of directors regarding the preparation and fair presentation of the Company's published financial statements. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect the Company's transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of the Company's financial statements; providing reasonable assurance that receipts and expenditures are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on the Company's financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of the Company's financial statements would be prevented or detected.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2021. In making this assessment, it used the criteria set forth by the COSO in Internal Control-Integrated Framework (2013). Management excluded from its assessment the internal control over financial reporting at Bank of Commerce, which was acquired on October 1, 2021 and whose financial data results constituted, of the consolidated financial statement amounts, approximately 10% of loans (net of allowance for credit losses), 10% of deposits, 10% of total assets and 2% of net interest income as of and for the year ended December 31, 2021.

Based on such evaluation, management has concluded that the Company's internal control over financial reporting is effective as of December 31, 2021. There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during our most recently completed fiscal quarter that materially affected or are reasonably likely to materially affect internal control over financial reporting.

Our independent registered public accounting firm has issued an attestation report on our internal control over financial reporting, which appears in this annual report on Form 10-K.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Columbia Banking System, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Columbia Banking System, Inc. and its subsidiaries (the “Company”) as of December 31, 2021, 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 Federal Financial Institutions Examination Council Instructions for Consolidated Reports of Condition and Income for Schedules RC, RI, and RI-A. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have not examined and, accordingly, we do not express an opinion or any other form of assurance on management's statement referring to compliance with laws and regulations.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2021, of the Company and our report dated February 25, 2022, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's adoption of Financial Accounting Standards Board Accounting Standards Codification No. 326, Financial Instruments - Credit Losses.

As described in Management's Annual Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at Bank of Commerce Holdings, which was acquired on October 1, 2021 and whose financial data results constituted, of the consolidated financial statements amounts, approximately 10% of loans (net of allowance for credit losses), 10% of deposits, 10% of total assets and 2% of net interest income as of and for the year ended December 31, 2021. Accordingly, our audit did not include the internal control over financial reporting at Bank of Commerce Holdings.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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.

/s/ Deloitte & Touche LLP

Seattle, Washington

February 25, 2022

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding “Directors, Executive Officers and Corporate Governance” will be set forth in the Company’s 2022 Annual Proxy Statement (the “Proxy Statement”), which will be filed with the SEC within 120 days of the end of our 2021 fiscal year and is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

Information regarding “Executive Compensation” will be set forth in the Proxy Statement and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” will be set forth in the Proxy Statement and is incorporated herein by reference. Information relating to securities authorized for issuance under the Company’s equity compensation plans is included in Part II of this Annual Report on Form 10-K under “Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.”

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information regarding “Certain Relationships and Related Transactions, and Director Independence” will be set forth in the Proxy Statement and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information regarding “Principal Accounting Fees and Services” billed to us by our principal accountant, Deloitte & Touche LLP (PCAOB ID No. 34), will be set forth in the Proxy Statement and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial Statements:

The Consolidated Financial Statements and related documents set forth in “Item 8. Financial Statements and Supplementary Data” of this report are filed as part of this report.

(2) Financial Statements Schedules:

All other schedules to the Consolidated Financial Statements required by Regulation S-X are omitted because they are not applicable, not material or because the information is included in the Consolidated Financial Statements and related notes in “Item 8. Financial Statements and Supplementary Data” of this report.

(3) Exhibits:

The response to this portion of Item 15 is submitted as a separate section of this report appearing immediately following the signature page and entitled “Index to Exhibits.”

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 25th day of February 2022.

COLUMBIA BANKING SYSTEM, INC.

(Registrant)

By: /s/ CLINT E. STEIN

Clint E. Stein
President and
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated, on the 25th day of February 2022.

Principal Executive Officer:

By: /s/ CLINT E. STEIN

Clint E. Stein
President and
Chief Executive Officer

Principal Financial Officer:

By: /s/ AARON JAMES DEER

Aaron James Deer
Executive Vice President and
Chief Financial Officer

Principal Accounting Officer:

By: /s/ BROCK M. LAKELY

Brock M. Lakely
Senior Vice President and
Chief Accounting Officer

Clint E. Stein, pursuant to a power of attorney that is being filed with the Annual Report on Form 10-K, has signed this report on February 25, 2022 as attorney in fact for the following directors who constitute a majority of the board of directors.

[Laura Alvarez Schrag]
[Craig D. Eerkes]
[Ford Elsaesser]
[Mark A. Finkelstein]
[Eric S. Forrest]
[Thomas M. Hulbert]

[Michelle M. Lantow]
[Randal L. Lund]
[Tracy Mack-Askew]
[S. Mae Fujita Numata]
[Elizabeth W. Seaton]
[Janine T. Terrano]

/s/ CLINT E. STEIN

Clint E. Stein
Attorney-in-fact

February 25, 2022

INDEX TO EXHIBITS

Exhibit No.	Exhibit
2.1	Agreement and Plan of Merger, dated as of June 23, 2021, by and between Columbia Banking System, Inc. and Bank of Commerce Holdings (1)
2.2	Agreement and Plan of Merger, dated as of October 11, 2021, by and among Umpqua Holdings Corporation, Columbia Banking System, Inc., and Cascade Merger Sub, Inc.* (2)
3.1	Amended and Restated Articles of Incorporation (3)
3.2	Articles of Amendment of the Amended and Restated Articles of Incorporation (4)
3.3	Articles of Amendment of the Amended and Restated Articles of Incorporation (5)
3.4	Articles of Amendment of the Amended and Restated Articles of Incorporation (6)
3.5	Amended and Restated Bylaws (7)
4.1	Specimen of common stock certificate (8)
4.2	Pursuant to Item 601(b) (4) (iii) (A) of Regulation S-K, copies of instruments defining the rights of holders of long-term debt and preferred securities are not filed. The Company agrees to furnish a copy thereof to the Securities and Exchange Commission upon request.
4.3	Description of Capital Stock (9)
10.1**	Amended and Restated Stock Option and Equity Compensation Plan (10)
10.2**	Form of Stock Option Agreement (11)
10.3**	Form of Restricted Stock Agreement (11)
10.4**	Form of Stock Appreciation Right Agreement (11)
10.5**	Form of Restricted Stock Unit Agreement (11)
10.6**	Form of Long-Term Restricted Stock Agreement (12)
10.7	Office Lease, dated as of December 15, 1999, between the Company and Haub Brothers Enterprises Trust (13)
10.8**	Change in Control Agreement between the Bank and Kent L. Roberts dated December 4, 2011 (14)
10.9**	Change in Control Agreement between the Bank and Clint E. Stein dated as of October 24, 2012 (15)
10.10**	Change in Control Agreement between the Bank and Andrew L. McDonald dated June 1, 2014 (16)
10.11**	Change in Control Agreement between the Bank and Kumi Baruffi dated September 1, 2014 (17)
10.12**	Change in Control Agreement between the Bank and Lisa Dow dated as of January 24, 2018 (18)
10.13**	Change in Control Agreement between the Bank and David C. Lawson, dated December 11, 2018 (19)
10.14**	Change in Control Agreement between the Bank and Clint E. Stein dated as of October 24, 2017 (20)
10.15**	Change in Control Agreement between the Bank and Andrew L. McDonald dated as of May 23, 2019 (21)
10.16**	Change in Control Agreement between the Bank and Kumi Yamamoto Baruffi dated as of December 2, 2019 (22)

INDEX TO EXHIBITS, CONTINUED

Exhibit No.	Exhibit
10.17**	Change in Control Agreement between the Bank and Christopher Merrywell dated as of January 1, 2020 (23)
10.18**	Change in Control Agreement between the Bank and David Moore Devine dated as of March 2, 2020 (23)
10.19**	Change in Control Agreement between the Bank and Eric Eid dated as of March 2, 2020 (23)
10.20**	Change in Control Agreement between the Bank and Aaron Deer dated as of May 7, 2020 (24)
10.21**	Change in Control Agreement between the Bank and David Lawson dated as of November 25, 2020 (38)
10.22**	Change in Control Agreement between the Bank and Lisa Dow dated as of November 25, 2020 (38)
10.23**	Form of Long-Term Care Agreement between the Bank, the Company, and each of the following directors: Mr. Folsom, Mr. Hulbert, Mr. Matson, Mr. Rodman, Mr. Weyerhaeuser and Mr. Will (25)
10.24**	Amended and Restated 401 Plus Plan (Deferred Compensation Plan) dated December 14, 2011 for directors and key employees (14)
10.25**	Form of Supplemental Compensation Agreement between the Bank and Mssrs. Andrew L. McDonald and Clint E. Stein, respectively (11)
10.26**	Form of Indemnification Agreement between the Company and its directors (26)
10.27**	West Coast Bancorp 2012 Omnibus Incentive Plan (27)
10.28**	2014 Stock Option and Equity Compensation Plan (28)
10.29**	2014 Form of Restricted Stock Agreement (28)
10.30**	2014 Form of Stock Option Agreement (28)
10.31**	2014 Form of Stock Appreciation Rights Agreement (28)
10.32**	2014 Form of Restricted Stock Unit Agreement (28)
10.33**	2014 Form of Cash Award Agreement (28)
10.34**	Amended and Restated Columbia Banking System, Inc. 2005 401 Plus Plan (Deferred Compensation Plan), dated October 26, 2016 for directors and key employees (29)
10.35**	Columbia Banking System, Inc. 2016 401 Plus Plan (Deferred Compensation Plan), dated October 26, 2016 for directors and key employees (29)
10.36**	Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and Kumi Baruffi, effective February 27, 2015 (30)
10.37**	First Amendment to the Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and Kumi Baruffi, effective November 15, 2017 (31)

INDEX TO EXHIBITS, CONTINUED

Exhibit No.	Exhibit
10.38**	First Amended and Restated Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and David C. Lawson, effective February 27, 2015 (30)
10.39**	First Amendment to the First Amended and Restated Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and David Lawson, effective November 15, 2017 (31)
10.40**	First Amended and Restated Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and Andrew L. McDonald, effective February 27, 2015 (30)
10.41**	First Amendment to the First Amended and Restated Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and Andrew L. McDonald, effective November 15, 2017 (31)
10.42**	First Amended and Restated Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and Clint E. Stein, effective February 27, 2015 (30)
10.43**	First Amendment to the First Amended and Restated Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and Clinton E. Stein, effective November 15, 2017 (31)
10.44**	2018 Equity Incentive Plan (32)
10.45**	Employment Offer (Lisa Dow), dated January 3, 2018 (18)
10.46**	Offer Letter, dated April 6, 2020 by and between Columbia State Bank and Aaron Deer (33)
10.47**	Amended and Restated Employment Agreement, dated as of October 11, 2021, by and between Columbia Banking System, Inc. and Clint E. Stein (34)
10.48**	Amended and Restated Employee Stock Purchase Plan (35)
10.49**	First Amendment to Amended and Restated Employee Stock Purchase Plan (36)
10.50**	Amended and Restated Executive Supplemental Income Agreement, by and between the Company and Lisa Dow, dated December 26, 2018 (19)
10.51**	Columbia State Bank Supplemental Executive Retirement Plan Agreement, by and between the Bank and Lisa Dow, effective March 11, 2018 (20)
10.52**	Columbia State Bank Endorsement Method Split Dollar Agreement (SERP Benefit), by and between the Bank and Lisa Dow, effective February 25, 2019 (20)
10.53**	First Amendment to the Columbia State Bank Endorsement Method Split Dollar Agreement (SERP Benefit), by and between the Bank and Lisa Dow, effective February 25, 2019 (20)
10.54**	Second Amendment to the Columbia State Bank Endorsement Method Split Dollar Agreement, by and between the Bank and David C. Lawson, effective May 31, 2019 (21)
10.55**	Second Amendment to the Columbia State Bank Endorsement Method Split Dollar Agreement, by and between the Bank and Kumi Baruffi, effective May 31, 2019 (21)
10.56**	Third Amendment to the Columbia State Bank Endorsement Method Split Dollar Agreement, by and between the Bank and Clinton E. Stein, effective May 31, 2019 (21)
10.57**	Columbia State Bank Endorsement Method Split Dollar Agreement, effective January 15, 2013, by and between Columbia State Bank and Christopher Merrywell (38)
10.58**	First Amendment to the Columbia State Bank Endorsement Method Split Dollar Agreement, dated November 23, 2020, by and between Columbia State Bank and Christopher Merrywell (38)

INDEX TO EXHIBITS, CONTINUED

Exhibit No.	Exhibit
10.59**	Columbia State Bank Endorsement Method Split Dollar Agreement, dated November 25, 2020 by and between Columbia State Bank and Aaron Deer (38)
10.60**	Executive Supplemental Compensation Agreement dated as of February 23, 2011 between Columbia State Bank and Eric J. Eid (38)
10.61**	Columbia State Bank Joint Beneficiary Agreement, by and between Columbia State Bank and David Devine, effective November 1, 2011 (38)
10.62**	Columbia State Bank Joint Beneficiary Agreement, by and between Columbia State Bank and Eric Eid, effective November 1, 2011 (38)
10.63**	Executive Supplemental Compensation Agreement dated as of February 27, 2014 between Columbia State Bank and Eric J. Eid (38)
10.64**	Executive Supplemental Compensation Agreement dated as of March 25, 2015 between Columbia State Bank and Christopher M. Merrywell (38)
10.65**	Executive Supplemental Compensation Agreement dated as of February 1, 2018 between Columbia State Bank and Christopher Merrywell (38)
10.66**	Executive Supplemental Compensation Agreement dated as of March 11, 2019 between Columbia State Bank and David Moore Devine (38)
14	Code of Ethics (37)
21+	Subsidiaries of the Company
23+	Consent of Deloitte & Touche LLP
24+	Power of Attorney
31.1+	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2+	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32+	Certification Filed Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101+	The following financial information from Columbia Banking System, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2021 is formatted in XBRL: (i) Audited Consolidated Balance Sheets, (ii) Audited Consolidated Statements of Income, (iii) Audited Consolidated Statements of Comprehensive Income, (iv) Audited Consolidated Statements of Changes in Shareholders' Equity, (v) Audited Consolidated Statements of Cash Flows, and (vi) Notes to Audited Consolidated Financial Statements.
104+	Cover Page Interactive Data File (the cover page XBRL tags are embedded within the Inline XBRL document).

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- (1) Incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K filed June 23, 2021
 - (2) Incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K file October 15, 2021
 - (3) Incorporated by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005
 - (4) Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed November 21, 2008
 - (5) Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed April 2, 2013
 - (6) Incorporated by reference to Exhibit 4.4 of the Company's S-3 Registration Statement (File No. 333-206125) filed August 6, 2015
 - (7) Incorporated by reference to Exhibit 3.2 of the Company's Current Report on Form 8-K filed on February 2, 2010
 - (8) Incorporated by reference to Exhibit 4.3 of the Company's S-3 Registration Statement (File No. 333-156350) filed December 19, 2008
 - (9) Incorporated by reference to Exhibit 4.3 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019
 - (10) Incorporated by reference to Exhibit 99.1 of the Company's S-8 Registration Statement (File No. 333-160370) filed July 1, 2009
 - (11) Incorporated by reference to Exhibits 10.2-10.5 and 10.16 of the Company's Annual Report on Form 10-K for the year ended December 31, 2007
 - (12) Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed January 5, 2010
 - (13) Incorporated by reference to Exhibit 10.5 of the Company's Annual Report on Form 10-K for the year ended December 31, 2000
 - (14) Incorporated by reference to Exhibits 10.14 and 10.15 of the Company's Annual Report on Form 10-K for the year ended December 31, 2011
 - (15) Incorporated by reference to Exhibits 10.1 and 10.2 of the Company's Current Report on Form 8-K filed October 29, 2012
 - (16) Incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014
 - (17) Incorporated by reference to Exhibit 10.42 of the Company's Annual Report on Form 10-K for the year ended December 31, 2015
 - (18) Incorporated by reference to Exhibits 10.1, 10.3, and 10.4 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018
 - (19) Incorporated by reference to Exhibits 10.61 and 10.62 of the Company's Annual Report on Form 10-K for the year ended December 31, 2018
 - (20) Incorporated by reference to Exhibits 10.1-10.4 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019
 - (21) Incorporated by reference to Exhibits 10.1-10.4 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019
 - (22) Incorporated by reference to Exhibit 10.72 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019
 - (23) Incorporated by reference to Exhibits 10.1-10.3 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020
 - (24) Incorporated by reference to Exhibits 10.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020
 - (25) Incorporated by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001
 - (26) Incorporated by reference to Exhibits 10.2 and 10.4 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009
 - (27) Incorporated by reference to Exhibits 99.1 and 99.2 of the Company's S-8 Registration Statement (File No. 333-187690) filed April 2, 2013
 - (28) Incorporated by reference to Exhibits 99.1-99.6 of the Company's S-8 Registration Statement (File No. 333-195456) filed April 23, 2014
 - (29) Incorporated by reference to Exhibits 10.1 and 10.2 of the Company's Current Report on Form 8-K filed October 28, 2016
 - (30) Incorporated by reference to Exhibits 10.1-10.8 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015
 - (31) Incorporated by reference to Exhibits 10.47-10.51 of the Company's Annual Report on Form 10-K for the year ended December 31, 2017
 - (32) Incorporated by reference to Exhibit 99.1 of the Company's S-8 Registration Statement (File No. 333-225955) filed June 28, 2018
 - (33) Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on April 13, 2020
 - (34) Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on October 15, 2021
 - (35) Incorporated by reference to Exhibit 10.7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2010
 - (36) Incorporated by reference to Exhibits 10.1-10.4 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018
 - (37) Incorporated by reference to Exhibit 14 of the Company's Annual Report on Form 10-K for the year ended December 31, 2003
 - (38) Incorporated by reference to Exhibit 10.21, 10.22, & 10.58-10.67 of the Company's Annual Report on Form 10-K for the year ended December 31, 2020

* The schedules to this agreement have been omitted in accordance with Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule or exhibit will be furnished supplementally to the SEC upon request; provided, however, that the registrant may request confidential treatment of omitted items.

** Management contract or compensatory plan or arrangement

+ Filed herewith



A combined
network of more
than 150 branches.

INDEPENDENT AUDITORS

Deloitte & Touche, LLP

TRANSFER AGENT AND REGISTRAR

Broadridge Corporate Issuer Solutions

FINANCIAL INFORMATION

Columbia news and financial results are available through the Internet and mail.

REGULATORY & SECURITIES COUNSEL

Sullivan & Cromwell, LLP

STOCK LISTING

The Company's common stock trades on the Nasdaq Stock Market LLC under the symbol: COLB

INTERNET

For information about Columbia Banking System, Inc., including news and financial results, product information and service locations, access our home page at www.ColumbiaBank.com. You can also view or retrieve copies of Columbia's financial reports on the Internet by connecting to www.sec.gov. Immediate access to the Company's quarterly earnings news releases via the Internet is provided by PR Newswire at www.prnewswire.com



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