



Annual Report

2022







Chairman's Letter to Shareholders and Friends

Capital One had an outstanding year in 2022. We grew revenue at the highest rate in two decades, recorded the second-most profitable year in our history, and returned significant capital to shareholders even as we bolstered our balance sheet to reflect growing global economic uncertainty. We also invested in our future. We delivered one of the strongest years of new account originations in our history. We invested in new products, signed new partners and enhanced our digital experiences to deepen customer relationships and to help

them succeed. And we continued our decade-long technology transformation that is unique in banking and at the forefront among large corporations in America.

Our success and our momentum are years in the making. Thirty-five years ago, we founded this company on a belief that technology and information would transform financial services, and that the credit card business was the tip of the spear. Our rallying cry back in 1987 was to build an information-based technology company that does banking, competing against banks that use information and technology but it may not be who they are. We searched the world for elite talent to join us

on this journey, going head-to-head against top consulting, banking and technology companies in the quest for great “athletes.” We looked for world-class problem-solvers who had the promise to be great builders, leaders and teammates. After years of building the talent, data and infrastructure to deliver our vision, the business took off and we celebrated our IPO in 1994. In just a few decades, we have become the third-largest credit card company in the United States. And we have expanded our vision beyond the U.S. and built card franchises in the United Kingdom and Canada.

But it was never just about credit cards. It was about changing banking for good by bringing ingenuity, simplicity and humanity to an industry justifiably proud of its heritage and role in the world but increasingly saddled with legacy technology and talent, overly complicated products and policies, and a customer experience that reflected that complexity. In 1998, we entered the auto finance business with a vision of bringing the same information-based solutions to what was a very traditional market. Today we are the largest auto lender in the United States. In 2005, concerned about having a business model reliant on capital markets funding, we entered retail and commercial banking and transformed our balance sheet to become a deposit-funded, diversified bank. We then set out to build the bank of the future with full-service banking capabilities delivered digitally, a lean physical branch presence, café showrooms in iconic locations, and an award-winning digital experience.

All along the way, we continued to adapt our strategic direction based on a core principle by which we manage the company. We don't start with where we currently are and try to get better. We focus obsessively on where the world is going and where winning is. And then we work backward from that. We know that sometimes that means being a market disrupter. And sometimes that

means disrupting ourselves. Success is about identifying waves of change and riding them.

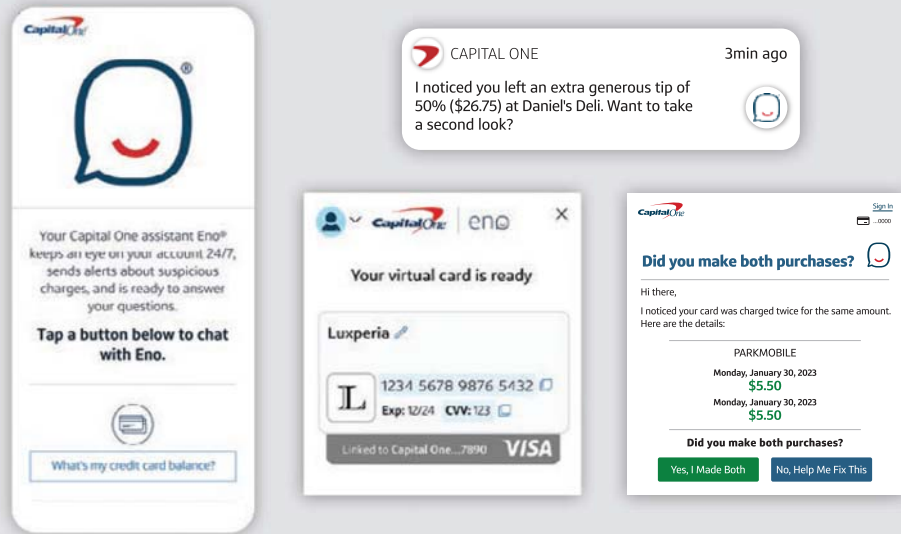
Human history has been driven by seismic waves of change and transformation. Early on, the waves were thousands of years apart. Today, we are witnessing a transformation in the human experience within our lifetimes. The digital revolution has come at a dizzying speed, with the computer in 1946, the personal computer in 1977 and the internet in 1994. These disruptions came only decades apart.

Then in the late 2000s, three waves of innovation swept the world at the very same time. The smartphone made us always on and always connected and ushered in the real-time revolution. Cloud computing brought nearly unlimited compute and storage at very low cost. That explosion of computing capability unleashed the promise of machine learning and artificial intelligence that had laid dormant in the provinces of academia. In isolation, each of these three waves would have been a seismic revolution. But together, the triple revolution of mobile, cloud and machine learning transformed the scale and time frames of our lives. They ushered in the world of big data in real time, powered by machine learning. To consumers, these waves brought us instant solutions, customized for each of us. The triple revolution is transforming how we live and how we work. Everything is at the speed of now. Not two days from now. Not ten minutes from now. Right now. It is the world of mass customization in real time, powered by machine learning. It is transforming everything around us at a pace never seen before in human history. It is what I call the real-time, intelligent revolution.

The revolution is accelerating. We have gone from unlimited, free access to all of humanity's knowledge to the emergence of generative AI built on transformer models that can create a credible response to the prompt “Write Capital One's annual Chairman's Letter.” The real-time, intelligent revolution is transforming how the world works, and few industries will be spared.

Real-Time and Intelligent Digital Experiences

Eno, the Capital One digital assistant, looks out for customers' money, even when they're not actively monitoring their accounts—like letting them know if they may have been double charged, overcharged or charged for something they didn't purchase. And customers can use virtual card numbers through the Eno browser extension to shop more securely online while keeping their actual card number private.



We Have Been on a Decade-long Technology Transformation

Despite our becoming one of America's fastest-growing financial institutions, we have watched with awe the pace of the real-time, intelligent revolution. But, while we were excited to ride that wave, a decade ago we stared at a sobering reality: The technology platform on which Capital One had built its competitive advantage would be obsolete in this new world. We knew that we couldn't just build incremental new capabilities and simply bolt them on top of our existing infrastructure. To fully enable real-time, intelligent solutions across the company and for our customers, we needed to undertake a discontinuous change. So, 10 years ago, we declared an all-in technology transformation across Capital One.

We began at the bottom of the tech stack and rebuilt our infrastructure. We recruited top technology talent from leading tech companies and college campuses. We brought our engineering talent in-house and moved away from legacy third-party vendors. We transformed how we

build software and became early adopters of APIs, microservices, DevOps and automated testing and deployment. We rebuilt the 1,300 applications on which the company operates to make them capable of handling big data in real time. We moved from scattered legacy systems to leveraging enterprise platforms to drive automation and scale. We evolved our data environment, and by 2020, we were fully in the public cloud and had exited our last data centers. In 2021, we fully exited our internal mainframes. And after a decade of transforming our technology, we are well-positioned to harness the promise and opportunity of machine learning and artificial intelligence. This has been a rare journey in corporate America, much less in banking.

Here we are in the 11th year of our technology transformation. When we look at where the world is going and where banking is headed, we see opportunities that all require the same path to get there. We spent years focused on the bottom of the tech stack, miles from where any customer could see our progress. And as we move up the tech stack, we're finding more and more opportunities. On the shoulders of everything we've built, we're faster to market with new products. Our mass-customized

marketing in real time is enhancing our reach and our growth. We've reduced credit losses and fraud costs and see positive risk management outcomes all across the company. Our digital experiences are delighting customers. And we are attracting the world's greatest tech talent to work on hard problems with amazing technology as they share and scale their innovations across the company and out into the world.

We have always had a reverence for the power of markets and riding the waves of change. And now, more than three decades after our founding, I am struck by the consistency of our story. We have built a technology company that does banking, competing against banks that use information and technology but it may not be who they are. We are exceptionally well-positioned at the frontier of the accelerating revolution of banking.

It is an incredible time to be alive at this moment in history. And it is an incredible opportunity to be Capital One, which was built to thrive in this moment. The sense of possibility is all around us. And in 2022, standing on the shoulders of our decade-long technology transformation, we continued to build momentum and drive outstanding results.

We Delivered Very Strong Financial Results in 2022

This was a great year for Capital One. Driven by loan growth of 13%, we delivered revenue of \$34.3 billion, up 12.5% from 2021 and the highest organic revenue growth rate in two decades. Our operating efficiency ratio improved 79 basis points to 44.2% as revenue growth outpaced operating expense growth. We took advantage of attractive growth opportunities across our businesses, and we increased marketing expenses \$1.1 billion, or 40%, as compared to 2021. In 2022, we drove strong new account growth and welcomed millions of new customers, and we deepened existing relationships across our franchises. Strong revenue

Fostering a Culture of Innovation

We have built a strong technology and engineering culture. Our business leaders and technology associates have taken center stage at some of the world's most high-profile technology conferences, including AWS re:Invent and the Snowflake Summit. And in 2022, we launched our first external software product, Capital One Slingshot.

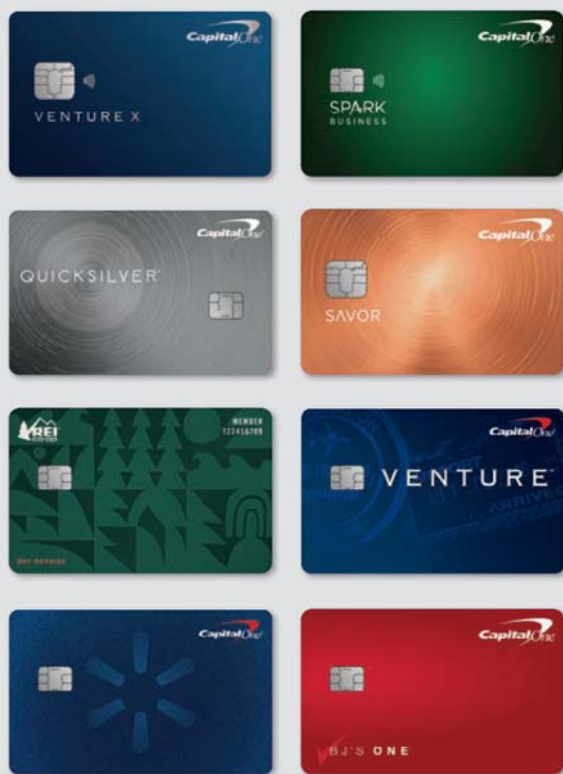


growth combined with higher operating expenses and marketing investments resulted in pre-provision earnings* of \$15.1 billion, an 8.8% increase from 2021.

As credit performance began to normalize from historically low losses during the pandemic, charge-offs increased and we built our allowance for credit losses to support growth and reflect growing economic uncertainty. Net charge-offs were \$4.0 billion, up \$1.7 billion (78%) from 2021, and our allowance for credit losses swung from a net decrease of \$4.1 billion in 2021 to a net increase of \$1.8 billion in 2022.

Clear Products With Compelling Rewards

With our rewards cards, consumers and small-business owners can get unlimited cash back, travel miles and points on every purchase every day. And our customers have access to award-winning digital tools and one-of-a-kind experiences in dining, sports and entertainment. REI and BJ's are the latest companies to join our growing roster of great retailers and partners, all of whom share a passion for delivering clear value and an exceptional customer experience.



Diluted earnings per share (EPS) were \$17.91, the second-highest in Capital One's history. We continued to be aided by unusually exceptional credit performance during the pandemic. But in 2022 we saw the unmistakable signs of expected credit normalization. Our key businesses delivered strong growth and solid returns. Domestic Card revenue hit \$21 billion—\$3.5 billion, or 20%, higher than 2021. We welcomed millions of new Card customers, and Card purchase volume hit an all-time high of \$569 billion, 17% higher than 2021.

Consumer deposits grew by 5.5%, and Auto loans increased 3.4%, despite a decline in loan originations as competitive conditions became less attractive. Commercial loan growth was 11%.

We distributed \$5.8 billion in capital to common shareholders through share repurchases and dividends. For our long-term shareholders, our deployment of capital through share repurchases over the past decade—which reduced the number of total common shares outstanding—has significantly increased their ownership stake in Capital One. We continue to believe capital distribution will be an important part of how we create value for our long-term shareholders in the future.

The global economy continued to feel the lingering effects of the pandemic in 2022. The stock market traded down as geopolitical risk, inflation and market fears of recessionary conditions in 2023 all weighed on investors. Banks, consumer lenders and Capital One in particular were negatively impacted. After significantly outperforming banks and the broader market in 2021, Capital One shares ended the year at \$92.96, down 35.9% from year-end 2021 versus the KBW Bank Index, which was down 23.7%.

We Are Helping Customers Succeed

When we set out on this journey three decades ago, the quest to change banking for good was not just about transforming the industry with technology and data. It was also a quest to change the customer experience and to bring ingenuity, simplicity and humanity to banking. The Capital One story plays out one customer at a time, across tens of millions of customers who can feel our mission in our products and customer experiences. It's the story of a first-generation immigrant who gets a chance to build credit in a new country. Or the small-business owner who uses credit card rewards to pay for employee health care. And the commuter in Boston who stops by for a cup of coffee but opens up about their financial goals and dreams. In 2022, our customers remained strong advocates of our brand and attrition

remained extremely low. We are here to help our customers succeed, and they can feel it.

Our flagship branded cards—Venture, Quicksilver and Savor—provide clear and compelling rewards with no asterisks or fine print. We expanded our consumer credit card offerings with the announcement of several new products and relationships, including the REI and BJ’s partnership cards. Our premium Venture X card saw strong growth in its first full year on the market, and we continued to build differentiated offerings for heavy-spend customers. We are opening a different kind of airport lounge in some of America’s busiest airports, with an engaging team, welcoming atmosphere and fresh food and drinks. We announced our Premier Hotel collection, a curated selection of hotels and resorts from around the world, for Venture X customers booking through Capital One Travel. We introduced Capital One Dining and Capital One Entertainment, which provide customers access to reservations at elite restaurants and tickets for exclusive events. And we partnered with Uber to offer discounts for Savor and Quicksilver cardholders. We are excited about our journey to go right at the top of the market with distinctive

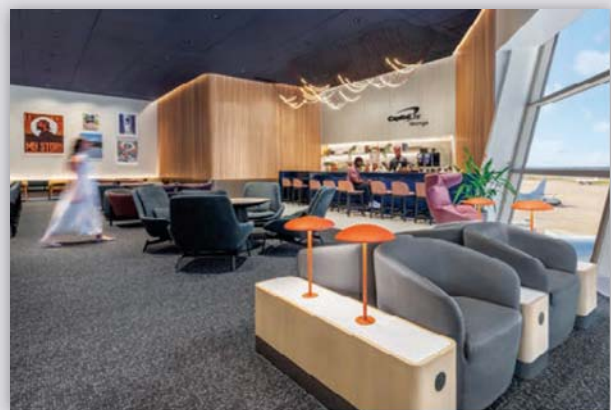
products, digital tools and experiences that are earning accolades from customers and experts alike.

Small businesses continue to be an engine of growth in communities across the country, and we’re focused on making it easier for entrepreneurs to chase their dreams and be rewarded for their success. Spark Cash Plus, our card with no preset spending limit, allows small-business owners greater flexibility in how they run their businesses and manage their money. We also expanded our offerings and partnered with Melio to launch a modern and intuitive bill payment solution for small-business owners, enabling them to better manage cash flow while still earning unlimited rewards and cash back on purchases. These products and investments are being recognized—we were ranked second overall in the J.D. Power 2022 U.S. Small Business Banking Satisfaction Study.

For centuries, banking was about physical buildings, long lines and endless paper. Today, banking is accessible to everyone at any time with the click of a button. As consumers embrace digital tools to understand, monitor and spend their money, Capital One has worked to bring a real-time, intelligent digital experience to meet their diverse needs.

A Different Kind of Airport Lounge

We are opening airport lounges in cities across the U.S., including our inaugural location in Dallas/Fort Worth. Capital One customers can decompress in our relaxation rooms, use free Wi-Fi to stream a show, or even break a sweat in our cycling and yoga studio.



This Is Banking Reimagined

We have built a different kind of bank. In 2022, we fully implemented our no-fee overdraft protection, saving customers hundreds of millions of dollars. We were the first major bank to make this move, and were honored to be recognized by *TIME*[®], in part due to this industry-leading announcement. For the third year in a row, we were named #1 in Customer Satisfaction among National Banks in the United States by J.D. Power. Stop in one of our branches or cafés or visit our website to experience banking reimagined.



Easton café in Columbus, Ohio



Capital One mobile café experience at MLB™ All-Star Week

Our simple and intuitive tools, like early paycheck and real-time activity alerts, give customers more control over their financial lives. And in 2022, we continued to expand our CashLoad functionality, which allows customers to deposit cash into their 360 Checking account(s) at CVS pharmacies. This feature is now available at over 8,000 CVS locations nationwide.

Capital One cafés are living, breathing examples of how we're reimagining banking. In 2015, we opened our first Capital One café in Boston. Our vision was to create a comfortable, inviting space for visitors to get a firsthand look at how our products, technology and people come together to create a completely different banking experience. In 2022, we continued to expand our café network, opening five new cafés in new and existing markets across the country. Today we have 54 Capital One cafés in the United States.

At the end of 2021, we became the first top-10 retail bank to announce the elimination of all overdraft and non-sufficient funds fees for consumer banking customers, and in 2022 we fully implemented these policies. Overdraft protection is a valuable and convenient feature and can be an important safety net for individuals and families. And our move to eliminate the fees associated with this service has saved our customers hundreds of millions of dollars over time while providing an important, and now free, service that many customers want and depend on. Our announcement has prompted a number of large banks to take steps to reduce customer fees on checking accounts, though few have gone as far as Capital One has.

We are building a bank of the future with strikingly simple and valuable products, an exceptional digital experience and an iconic physical presence in

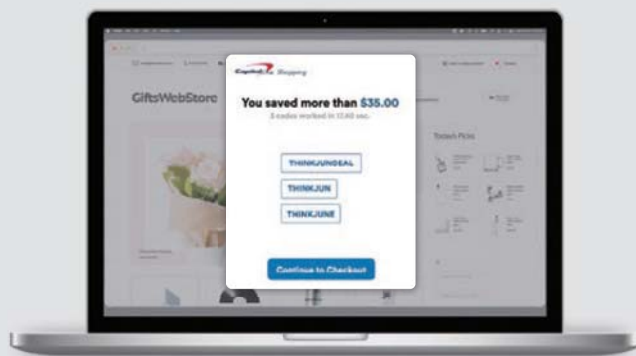
key markets. And the world is taking notice. We ranked Highest in Customer Satisfaction with Mobile Banking Apps among National Banks by J.D. Power, and our 360 Checking and Savings products were both awarded Best Overall by *The Wall Street Journal*. And we were excited to see *TIME*® named Capital One to its *TIME*® 100 Most Influential Companies List, in part due to our industry-leading move to eliminate overdraft fees.

Our Customers Are Benefiting From Our Technology Transformation

At Capital One, we are building on our technology investments and constantly reimagining what's next. We seek out products and industries that are ripe for transformation and try to imagine a better way. For a century, the process of buying a car barely changed. But the digital revolution has brought new tools, technologies and expectations to the car-buying experience. Capital One is the largest auto lender in the United States, and we're

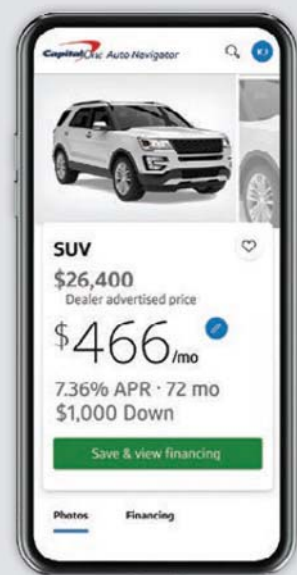
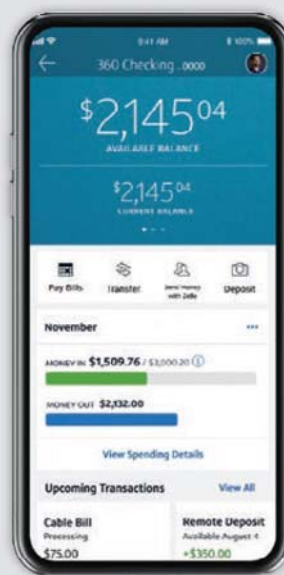
working to reimagine the car-buying experience with our Navigator Platform. We continue to build industry-leading technology capabilities, and our innovation is helping transform the car-buying experience for both buyers and dealers. Buyers can search dealers' inventories, understand their financing options, prequalify for financing without an impact on their credit score, and customize their payment amount and schedule to work best for them. Dealers can create a more transparent, personal experience for customers by understanding their preferences up front.

Online shopping exploded during the pandemic and is expected to continue to gain market share in the future. In 2022, we saw more and more customers fall in love with Capital One Shopping, which has saved customers hundreds of millions of dollars by automatically searching for coupons, better prices and valuable rewards at over 30,000 online retailers. Behind the sleek experience is a machine-learning–driven model that delivers incremental sales to merchants and exceptional deals to consumers.



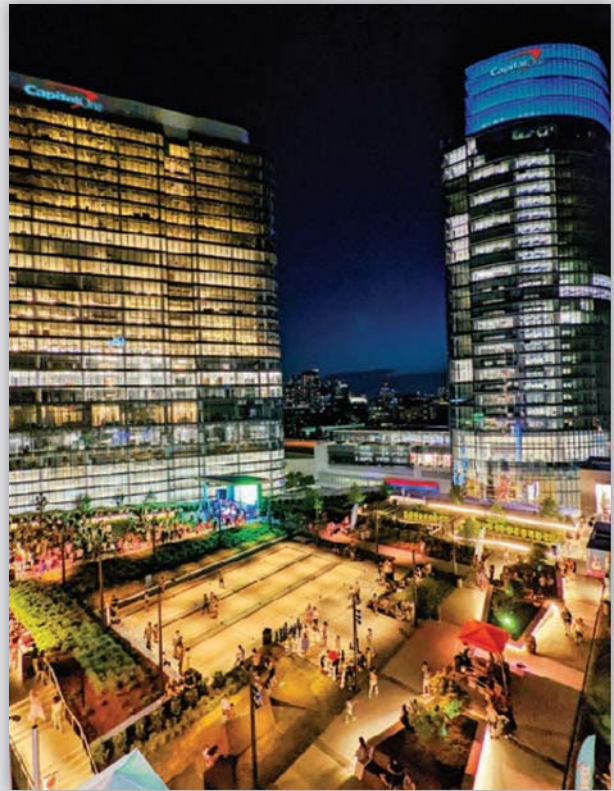
Innovative Tools to Help Our Customers Succeed

You can save money when you shop online, manage your finances with our award-winning mobile app, and find and finance your next car. Millions of customers are benefiting from our innovation, cloud capabilities and modern tech stack.



Our Campuses Provide Vibrant Spaces for Collaboration and Community

The vast majority of our associates work in a hybrid model, where they spend meaningful time both in person and virtually while enjoying flexibility in how and where they work. Our global headquarters in Tysons, Virginia, brings associates and the community together with ultramodern office spaces, restaurants, public parks, a Wegmans grocery store and an award-winning performing arts center.



Over our decade-long journey to transform our technology, we have been recognized as one of the most cloud-capable companies in the world. As we became an early adopter of the public cloud, we built our own in-house technology tools to better measure, understand and manage our cloud investments. Realizing the value of this technology, we set out to externalize our capabilities in the form of a commercial product offering. At the 2022 Snowflake Summit in Las Vegas, we announced our first commercialized technology product, Capital One Slingshot. Slingshot is a groundbreaking tool designed to help companies optimize their Snowflake spend. In 2022 we onboarded our first commercial customers and are leveraging their feedback to continue building and evolving our product road map.

Across the company, our associates have continued to innovate and build skills. For the fourth year in a row, Capital One led the financial services industry in new patents granted. We reached #59 for all companies across all industries, our highest ranking ever. We were granted 724 new U.S. patents in 2022, of which 708 were related to software or technology. We now have a portfolio of over 3,000 U.S. patents—up from 150 in 2017—and we are thrilled that associates old and new have joined our community of creators and inventors. Capital One is also among the most cloud-fluent organizations with over 90% of our software engineers holding Amazon Web Services (AWS) certification. And over 90% of our software and data engineering population holds a Certified Secure Software Engineer (CSSE) certification.

We Search the World for Great Talent and Help Unleash Their Greatness

Since our founding, we have focused on attracting, developing and empowering the world’s best people. We search for star candidates to fill every open role, from the most junior associate to our Executive Committee and Board of Directors. Our passionate, innovative associates are the heart of Capital One, and they serve our customers with humanity and ingenuity.

In 2022, we welcomed over 13,000 associates globally, including close to 4,000 in technology roles like software engineering, data science, machine learning and cybersecurity. More than 2,800 full-time associates and interns joined Capital One through our campus programs, which range from technology and product management to finance and business analysis.

We cherish our open culture, seek out the wisdom of the crowd, and harness our associates’ insights to drive meaningful change and innovation across the company. We have maintained strikingly high associate engagement, morale and inclusion and are committed to creating an exceptional experience to help our associates grow and thrive. In 2022, we continued to invest in resources to support our associates’ mental, physical, social and financial health.

Capital One is committed to diversity, inclusion and belonging. In 2022, we expanded our recruiting pipelines and we deepened our partnership with Historically Black Colleges and Universities and Hispanic-Serving Institutions. We focused on expanding mobility opportunities for customer-facing associates to advance their careers. And we continued to expand diverse representation among our executive population through recruiting, development and promotion.

Investing in Founders and Entrepreneurs

As a founder-led company, Capital One is committed to supporting the bold dreams of entrepreneurs. For example, through the Black Girl Magic Summit, we awarded seed grants to Black, women-owned businesses and start-ups. The Michael Wassmer Innovation Center in Richmond, Virginia, provides a collaborative community workspace for entrepreneurs and is igniting new pathways for small businesses in the region.



Over 60% of our global workforce is engaged in one of our voluntary associate networks based on their shared interests or backgrounds. These groups deepen our understanding of different cultures, people and experiences and enable associates to build connections and bridge differences. In 2022, we launched our eighth associate network group, &family, which focuses on the needs of parents and caregivers.

We are committed to harnessing technology and new ways of working to enable the best in our associates. The vast majority of our non-customer-facing associates now work in a hybrid

model, where associates spend meaningful time working both in person and virtually. Teams have found significant benefits of collaborating and being together in person while still realizing the efficiency and convenience of virtual work and working from home. Associates value the flexibility provided with our hybrid model, and we will continue to listen to associate feedback and adapt to the changing landscape of today's workforce while investing in our associates' growth and development.

My number one job is attracting and developing great talent. And I am heartened that we have been recognized as a great place to launch and accelerate careers.

A Great Place to Work

We continue to be recognized as an exceptional place for associates to start or grow their careers. We were honored to be ranked #10 on *Fortune*® magazine's 100 Best Companies to Work For® list. Diversity, inclusion and belonging are critical to who we are and essential to how we succeed, and we are committed to supporting and empowering all associates in their journey at Capital One.



FORTUNE 100 Best Companies to Work For 2022.
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DiversityInc., 2022 Top 50
Companies for Diversity



Seramount, 2022 Best Company
for Multicultural Women



Human Rights Campaign Foundation™,
2022 Best Places To Work for LGBTQ+
Equality. 100% Corporate Equality Index



ANITA B.ORG, Top Companies for
Women in Technology, Leader 2022



Great Place to Work®, Best Workplaces™
for Parents. USA 2022



Overtown, Miami, FL: Muralist Jason Jones and café team



Toronto, Ontario, Canada

In 2022 Capital One was ranked #10 on *Fortune*® magazine's 100 Best Companies to Work For® list, which marks our second year in the Top 10 and our 11th consecutive year—and 16th year overall—on this prestigious list. We were named as #22 on *DiversityInc*'s list of Top 50 Companies for Diversity, up six spots from 2021. And we were ranked #61 on *The Wall Street Journal*'s 250 Best-Managed Companies, including #34 on Innovation.

We Are Helping Our Communities Thrive

Capital One has a direct impact on improving lives and supporting local communities. We committed over \$70 million in grants to nonprofits in 2022, which includes over \$50 million to help advance socioeconomic mobility as a part of our Impact Initiative. We also financed thousands of new affordable housing units and resident services at housing facilities across the United States.

Our associates are passionate about supporting their communities, and they contributed hundreds of thousands of hours of their time to service in 2022. Notably, over 900 Capital One associates engaged in pro bono and nonprofit consulting using their skills and experience. Associates delivered almost 20,000 hours of advice, counsel and problem-solving to community groups and nonprofit partners in their neighborhoods.

We've made meaningful progress on our environmental sustainability journey, which began over a decade ago. We are now on Capital One's fourth-generation greenhouse gas emission reduction goal, and we've incorporated climate-change-related considerations into our strategy

and risk practices across the company. We are also supporting climate initiatives outside of our walls through investments in solar and wind energy projects as well as start-ups designed to tackle critical environmental issues. In 2022, we also launched our Green Auto Hub to educate our auto finance customers on the availability and affordability of electric and hybrid vehicles.

We Are on a Journey to Change Banking for Good

Thirty-five years ago, we set out with a dream to change banking for good and bring breakthrough products and experiences to consumers. Somehow, with good fortune and a lot of associates and investors who believed in our quest, the unlikely story of Capital One has come to be. While our budget has more zeroes today, the dream and the spirit of entrepreneurship and the sense of possibility are as strong now as they were in our founding days. We are now 55,000 associates strong, and they are all-in on building a great franchise for our customers. We have ridden waves of change to build one of America's fastest-growing companies over the past three decades. All along the way, we have focused on doing the right thing and building for the long term, and that's why we are here today. Every day I am humbled to lead this incredible group of associates on our quest to change banking for good. This journey is a lifelong one. I am grateful to be a part of it.



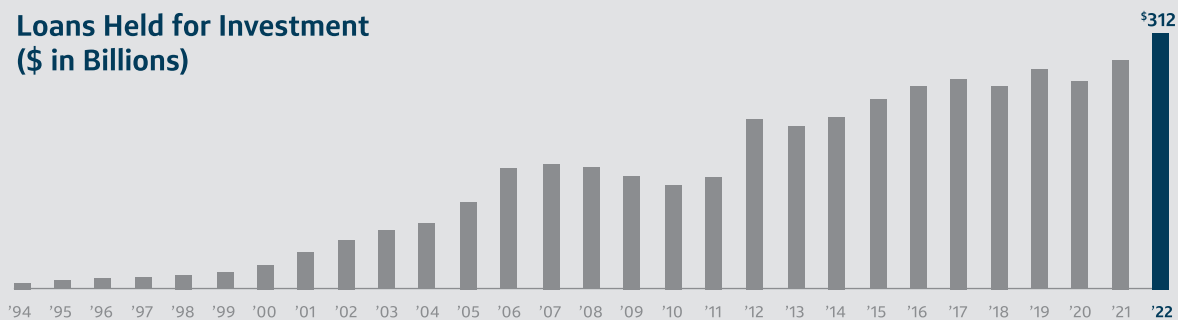
Richard D. Fairbank
Chairman and CEO

*Pre-provision earnings is calculated based on the sum of net interest income and non-interest income, less non-interest expense for the period. Management believes that this financial metric is useful in enabling investors and others to assess the company's ability to generate income to cover credit losses through a credit cycle, which can vary significantly between periods.

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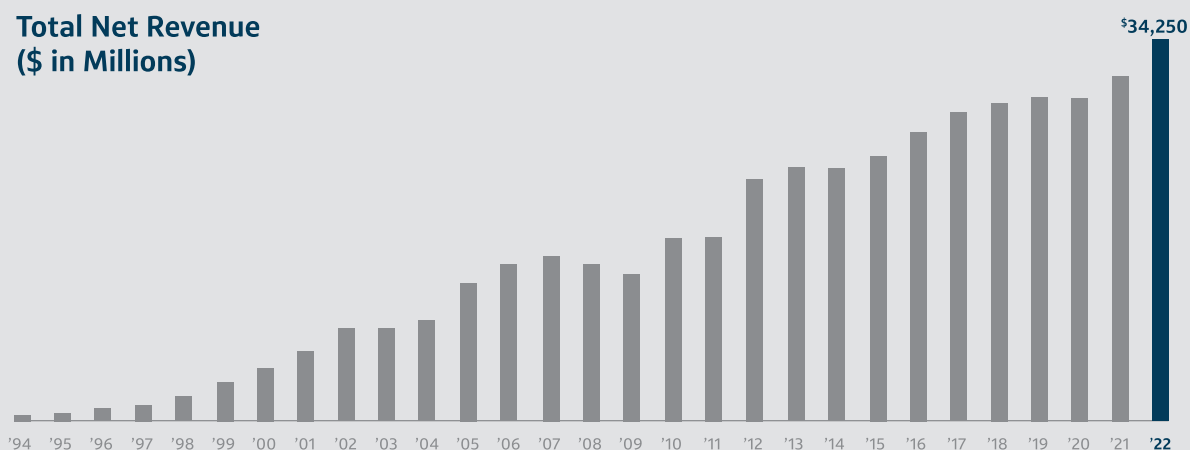
Financial Summary

Loans Held for Investment (\$ in Billions)



Source: COF Forms 10-K published at sec.gov

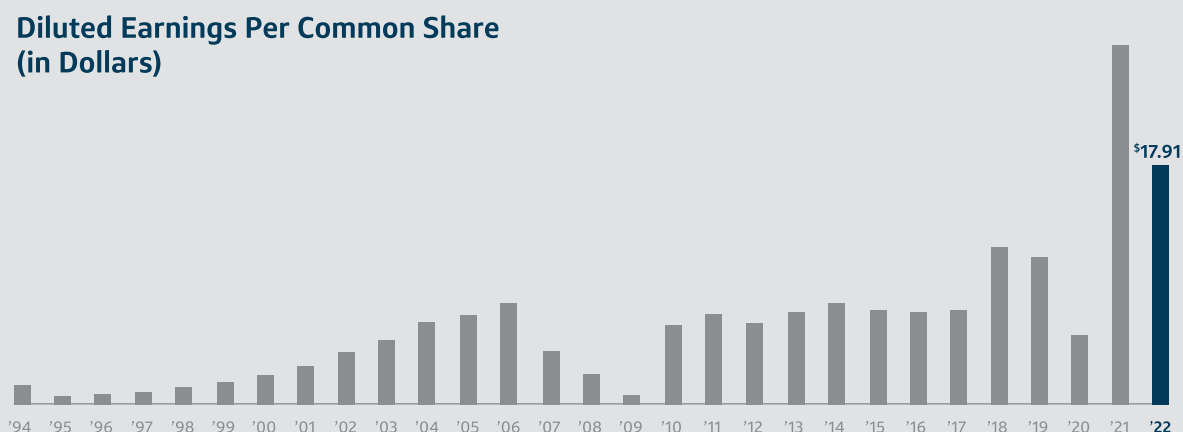
Total Net Revenue (\$ in Millions)



Source: COF Forms 10-K published at sec.gov

Note: Figures prior to 2005 do not include the effects of securitization transactions qualifying as sales under GAAP.

Diluted Earnings Per Common Share (in Dollars)



Source: COF Forms 10-K and earnings release materials published at sec.gov

Note: 2017 net income per diluted share as reported under GAAP was \$3.49 per share. The amount above has been adjusted to exclude the \$1.77 billion (\$3.59 per share) non-cash impact of U.S. tax reform, which reflected our estimate as of December 31, 2017. 2008 loss as reported under GAAP was \$0.21 per share. The amount above has been adjusted to exclude an \$811 million (\$2.14 per share) non-cash goodwill impairment, and the associated \$7 million tax effect of the impairment (\$0.01 per share), related to our auto finance business.

Income Statement (Dollars in millions, except per-share data as noted)

	2022	2021
Net interest income	\$ 27,114	\$ 24,171
Non-interest income	7,136	6,264
Total revenue	34,250	30,435
Provision (benefit) for credit losses	5,847	(1,944)
Non-interest expense	19,163	16,570
Income from continuing operations before income taxes	9,240	15,809
Income tax provision	1,880	3,415
Income from continuing operations, net of tax	7,360	12,394
Income (loss) from discontinued operations, net of tax	0	(4)
Net income	7,360	12,390
Dividends and undistributed earnings allocated to participating securities	(88)	(105)
Preferred stock dividends	(228)	(274)
Issuance cost for redeemed preferred stock	0	(46)
Net income available to common stockholders	7,044	11,965

Common Share Statistics

Basic earnings per common share:

	2022	2021
Net income from continuing operations	\$ 17.98	\$ 27.05
Income (loss) from discontinued operations	0.00	(0.01)
Net income per basic common share	17.98	27.04

Diluted earnings per common share:

	2022	2021
Net income from continuing operations	\$ 17.91	\$ 26.95
Income (loss) from discontinued operations	0.00	(0.01)
Net income per diluted common share	17.91	26.94

	2022	2021
Dividends declared and paid per common share	\$ 2.40	\$ 2.60

Balance Sheet (Dollars in millions)

	2022	2021
Loans held for investment	\$ 312,331	\$ 277,340
Interest-earning assets	427,248	397,341
Total assets	455,249	432,381
Interest-bearing deposits	300,789	272,937
Total deposits	332,992	310,980
Borrowings	48,715	43,086
Common equity	47,737	56,184
Total stockholders' equity	52,582	61,029

Average Balances (Dollars in millions)

	2022	2021
Loans held for investment	\$ 292,238	\$ 252,730
Interest-earning assets	406,646	389,336
Total assets	440,538	424,521
Interest-bearing deposits	277,208	271,500
Total deposits	313,551	306,397
Borrowings	51,006	38,590
Common equity	50,279	56,966
Total stockholders' equity	55,125	62,556

Credit Quality Metrics (Dollars in millions, except per-share data as noted)

	2022	2021
Allowance for credit losses	\$ 13,240	\$ 11,430
Allowance coverage ratio	4.24 %	4.12 %
Net charge-offs	\$ 3,973	\$ 2,234
Net charge-off rate	1.36 %	0.88 %
30+ day performing delinquency rate	2.96	2.25
30+ day delinquency rate	3.21	2.41

Performance Metrics

	2022	2021
Purchase volume	\$ 587,283	\$ 527,605
Total net revenue margin	8.42 %	7.82 %
Net interest margin	6.67	6.21
Return on average assets	1.67	2.92
Return on average common equity	14.01	21.01
Return on average tangible common equity	19.91	28.39
Efficiency ratio	55.95	54.44
Operating efficiency ratio	44.22	45.01
Effective income tax rate for continuing operations	20.3	21.6
Employees (period end, in thousands)	56.0	50.8

Capital Ratios

	2022	2021
Common equity Tier 1 capital	12.5 %	13.1 %
Tier 1 capital	13.9	14.5
Total capital	15.8	16.9
Tier 1 leverage	11.1	11.6
Tangible common equity	7.5	9.9

A digital version of our 2022 Form 10-K is made available by the Securities and Exchange Commission on its public database at <https://www.sec.gov/Archives/edgar/data/927628/000092762823000117/cof-20221231.htm>

Capital One Financial Corporation Directors and Executive Officers

Board of Directors

Richard D. Fairbank

Chairman and CEO

Ime Archibong^C

Head of New Product Experimentation, Meta

Christine Detrick^{A, R}

*Former Director, Head of the Americas
Financial Services Practice;
Former Senior Advisor, Bain & Company*

Ann Fritz Hackett^{C, G, R}

Former Strategy Consulting Partner

Peter Thomas Killalea^{C, R}

Former Vice President of Technology, Amazon.com

Cornelis Petrus Adrianus Joseph

“Eli” Leenaars^{A, C, R}

Group Chief Operating Officer, Quintet Private Bank

François Locoh-Donou^{C, G}

President, CEO and Director, F5 Networks, Inc.

Peter E. Raskind^{G, R}

*Former Chairman, President and CEO,
National City Corporation*

Eileen Serra^{A, R}

*Former CEO, Chase Card Services;
Former Senior Advisor, JP Morgan Chase & Co.*

Mayo A. Shattuck III^{C, G}

*Former Chairman, Exelon Corporation;
Former Chairman, President and CEO,
Constellation Energy Group*

Bradford H. Warner^{A, R}

*Former President of Premier and Small Business
Banking, Bank of America Corporation*

Craig Anthony Williams^{A, C}

President, Jordan Brand, Nike, Inc.

^A Audit Committee

^C Compensation Committee

^G Governance and Nominating Committee

^R Risk Committee

Executive Officers

Richard D. Fairbank

Chairman and CEO

Robert M. Alexander

Chief Information Officer

Neal Blinde

President, Commercial Banking

Kevin S. Borgmann

Senior Advisor to the CEO

Matthew W. Cooper

General Counsel and Corporate Secretary

Lia N. Dean

President, Banking and Premium Products

Kaitlin Haggerty

Chief Human Resources Officer

Sheldon “Trip” Hall

Chief Risk Officer

Celia S. Karam

President, Retail Bank

Frank G. LaPrade III

*Chief Enterprise Services Officer and
Chief of Staff to the CEO*

Mark Daniel Mouadeb

President, U.S. Card

Ravi Raghu

*President, Capital One Software,
International, and Small Business Products*

Kara West

Chief Audit Officer

Sanjiv Yajnik

President, Financial Services

Andrew M. Young

Chief Financial Officer

Michael Zamsky

Chief Consumer Credit Officer

**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, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____
Commission File No. 001-13300

CAPITAL ONE FINANCIAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

54-1719854
(I.R.S. Employer Identification No.)

1680 Capital One Drive,
McLean, Virginia
(Address of principal executive offices)

22102
(Zip Code)

Registrant's telephone number, including area code: (703) 720-1000

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock (par value \$.01 per share)	COF	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series I	COF PRI	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series J	COF PRJ	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series K	COF PRK	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series L	COF PRL	New York Stock Exchange
Depository Shares, Each Representing a 1/40th Interest in a Share of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series N	COF PRN	New York Stock Exchange
0.800% Senior Notes Due 2024	COF24	New York Stock Exchange
1.650% Senior Notes Due 2029	COF29	New York Stock Exchange

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 an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

Indicate by check mark whether the registrant 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.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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 the voting and non-voting stock held by non-affiliates of the registrant as of the close of business on June 30, 2022 was approximately \$39.6 billion. As of January 31, 2023, there were 381,079,743 shares of the registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

1. Portions of the Proxy Statement for the annual meeting of stockholders to be held on May 4, 2023, are incorporated by reference into Part III.

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PART I

Item 1. Business

OVERVIEW

General

Capital One Financial Corporation, a Delaware corporation established in 1994 and headquartered in McLean, Virginia, is a diversified financial services holding company with banking and non-banking subsidiaries. Capital One Financial Corporation and its subsidiaries (the “Company” or “Capital One”) offer a broad array of financial products and services to consumers, small businesses and commercial clients through digital channels, branch locations, cafés and other distribution channels.

As of December 31, 2022, Capital One Financial Corporation’s principal operating subsidiary was Capital One, National Association (“CONA”). On October 1, 2022, the Company completed the merger of Capital One Bank (USA), National Association (“COBNA”), with and into CONA, with CONA as the surviving entity (the “Bank Merger”). The Company is hereafter collectively referred to as “we,” “us” or “our.” References to the “Bank” shall mean and refer to (i) CONA from and after the Bank Merger and (ii) CONA and COBNA collectively prior to the Bank Merger.

References to “this Report” or our “2022 Form 10-K” or “2022 Annual Report” are to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022. All references to 2022, 2021 and 2020, refer to our fiscal years ended, or the dates, as the context requires, December 31, 2022, December 31, 2021 and December 31, 2020, respectively. Certain business terms used in this document are defined in the “MD&A—Glossary and Acronyms” and should be read in conjunction with the Consolidated Financial Statements included in this Report.

We were the third largest issuer of Visa[®] (“Visa”) and MasterCard[®] (“MasterCard”) credit cards in the U.S. based on the outstanding balance of credit card loans as of December 31, 2022. In addition to credit cards, we also offer debit cards, bank lending, treasury management and depository services, auto loans and other consumer lending products in markets across the U.S. As one of the nation’s largest banks based on deposits as of December 31, 2022, we service banking customer accounts through digital channels and our network of branch locations, cafés, call centers and automated teller machines (“ATMs”).

We also offer products and services outside of the U.S. principally through Capital One (Europe) plc (“COEP”), an indirect subsidiary of CONA organized and located in the United Kingdom (“U.K.”), and through a branch of CONA in Canada. Both COEP and our Canadian branch of CONA have the authority to provide credit card loans.

Business Developments

We regularly explore and evaluate opportunities to acquire financial products and services as well as financial assets, including credit card and other loan portfolios, and enter into strategic partnerships as part of our growth strategy. We also explore opportunities to acquire technology companies and related assets to improve our information technology infrastructure and to deliver on our digital strategy. We may issue equity or debt to fund our acquisitions. In addition, we regularly consider the potential disposition of certain of our assets, branches, partnership agreements or lines of business.

Additional Information

Our common stock trades on the New York Stock Exchange (“NYSE”) under the symbol “COF” and is included in the Standard & Poor’s (“S&P”) 100 Index. We maintain a website at www.capitalone.com. Documents available under “Governance & Leadership” in the Investor Relations section of our website include:

- our Certificate of Incorporation, Bylaws, Corporate Governance Guidelines, and Code of Conduct; and
- charters for the Audit, Compensation, Governance and Nominating, and Risk Committees of the Board of Directors.

These documents also are available in print to any stockholder who requests a copy. We intend to disclose any future amendments to, or waivers from, our Code of Conduct on the website following the date of any such amendment or waiver.

In addition, we make available free of charge through our website all of our U.S. Securities and Exchange Commission (“SEC”) filings, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after electronically filing or furnishing such material to the SEC at www.sec.gov.

OPERATIONS AND BUSINESS SEGMENTS

Our consolidated total net revenues are derived primarily from lending to consumer and commercial customers net of funding costs associated with our deposits, long-term debt and other borrowings. We also earn non-interest income which primarily consists of interchange income, net of reward expenses, service charges and other customer-related fees. Our expenses primarily consist of the provision for credit losses, operating expenses, marketing expenses and income taxes.

Our principal operations are organized for management reporting purposes into three major business segments, which are defined primarily based on the products and services provided or the types of customers served: Credit Card, Consumer Banking and Commercial Banking. The operations of acquired businesses have been integrated into or managed as a part of our existing business segments. Certain activities that are not part of a segment, such as management of our corporate investment portfolio and asset/liability management by our centralized Corporate Treasury group, are included in the Other category. The Other category also includes unallocated corporate expenses that do not directly support the operations of the business segments or for which the business segments are not considered financially accountable in evaluating their performance, such as certain restructuring charges, as well as residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments.

- *Credit Card*: Consists of our domestic consumer and small business card lending, and international card businesses in the United Kingdom and Canada.
- *Consumer Banking*: Consists of our deposit gathering and lending activities for consumers and small businesses, and national auto lending.
- *Commercial Banking*: Consists of our lending, deposit gathering, capital markets and treasury management services to commercial real estate and commercial and industrial customers. Our customers typically include companies with annual revenues between \$20 million and \$2 billion.

Customer usage and payment patterns, estimates of future expected credit losses, levels of marketing expense and operating efficiency all affect our profitability. In our Credit Card business, we generally experience fluctuations in purchase volume and the level of outstanding loan receivables from seasonal variances in consumer spending and payment patterns which, for example, have historically been the highest around the winter holiday season. Net charge-off rates for our credit card loan portfolio also have historically exhibited seasonal patterns as well and generally tend to be the highest in the first quarter of the year.

For additional information on our business segments, including the financial performance of each business, see “Part II—Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”)—Executive Summary,” “Part II—Item 7. MD&A—Business Segment Financial Performance” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 17—Business Segments and Revenue from Contracts with Customers” of this Report.

COMPETITION

Each of our business segments operates in a highly competitive environment, and we face competition in all aspects of our business from numerous bank and non-bank providers of financial services.

Our Credit Card business competes with international, national, regional and local issuers of Visa and MasterCard credit cards, as well as with American Express[®], Discover Card[®], private-label card brands, and, to a certain extent, issuers of debit cards. In general, customers are attracted to credit card issuers largely on the basis of price, credit limit, reward programs, customer experience and other product features.

Our Consumer Banking and Commercial Banking businesses compete with national, state and direct banks for deposits, commercial and auto loans, as well as with savings and loan associations and credit unions for loans and deposits. Our competitors also include automotive finance companies, commercial mortgage banking companies and other financial services providers that provide loans, deposits, and other similar services and products. In addition, we compete against non-depository institutions that are able to offer these products and services.

We also consider new and emerging companies in digital and mobile payments and other financial technology providers among our competitors. We compete with many forms of payment mechanisms, systems and products, offered by both bank and non-bank providers.

Our businesses generally compete on the basis of the quality and range of their products and services, transaction execution, innovation and price. Competition varies based on the types of clients, customers, industries and geographies served. Our ability to compete depends, in part, on our ability to attract and retain our associates and on our reputation as well as our ability to keep pace with innovation, in particular in the development of new technology platforms. There can be no assurance, however, that our ability to market products and services successfully or to obtain adequate returns on our products and services will not be impacted by the nature of the competition that now exists or may later develop, or by the broader economic environment. For a discussion of the risks related to our competitive environment, see “Part I—Item 1A. Risk Factors.”

SUPERVISION AND REGULATION

General

The regulatory framework applicable to banking organizations is intended primarily for the protection of depositors and the stability of the U.S. financial system, rather than for the protection of stockholders and creditors.

As a banking organization, we are subject to extensive regulation and supervision. In addition to banking laws and regulations, we are subject to various other laws and regulations, all of which directly or indirectly affect our operations, management and ability to make distributions to stockholders. We and our subsidiaries are also subject to supervision and examination by multiple regulators. In addition to laws and regulations, state and federal bank regulatory agencies may issue policy statements, interpretive letters and similar written guidance applicable to us and our subsidiaries. Any change in the statutes, regulations or regulatory policies applicable to us, including changes in their interpretation or implementation, could have a material effect on our business or organization.

Both the scope of the laws and regulations and the intensity of the supervision to which we are subject have increased, initially in response to the 2007-2008 financial crisis, and more recently in light of other factors such as technological, political and market changes. Regulatory enforcement and fines have also increased across the banking and financial services sector.

The descriptions below summarize certain significant federal and state laws, as well as international laws, to which we are subject. The descriptions are qualified in their entirety by reference to the particular statutory or regulatory provisions summarized. They do not summarize all possible or proposed changes in current laws or regulations and are not intended to be a substitute for the related statutes or regulatory provisions.

Banking Regulation

Capital One Financial Corporation is a bank holding company (“BHC”) and a financial holding company (“FHC”) under the Bank Holding Company Act of 1956, as amended (“BHC Act”), and is subject to the requirements of the BHC Act, including approval requirements for investments in or acquisitions of banking organizations, capital adequacy standards and limitations

on non-banking activities. As a BHC and FHC, we are subject to supervision, examination and regulation by the Board of Governors of the Federal Reserve System (“Federal Reserve”). Permissible activities for a BHC include those activities that are so closely related to banking as to be a proper incident thereto. In addition, an FHC is permitted to engage in activities considered to be financial in nature (including, for example, securities underwriting and dealing and merchant banking activities), incidental to financial activities or, if the Federal Reserve determines that they pose no risk to the safety or soundness of depository institutions or the financial system in general, activities complementary to financial activities.

To become and remain eligible for FHC status, a BHC and its subsidiary depository institutions must meet certain criteria, including capital, management and Community Reinvestment Act (“CRA”) requirements. Failure to meet such criteria could result, depending on which requirements were not met, in restrictions on new financial activities or acquisitions or being required to discontinue existing activities that are not generally permissible for BHCs.

The Bank is a national association chartered under the National Bank Act, the deposits of which are insured by the Federal Deposit Insurance Corporation (“FDIC”) up to applicable limits. The Bank is subject to comprehensive regulation and periodic examination by the Office of the Comptroller of the Currency (“OCC”), the FDIC and the Consumer Financial Protection Bureau (“CFPB”).

We also are registered as a financial institution holding company under the laws of the Commonwealth of Virginia and, as such, we are subject to periodic examination by the Virginia Bureau of Financial Institutions. We also face regulation in the international jurisdictions in which we conduct business. See “Regulation of Businesses by Authorities Outside the United States” below for additional details.

Regulation of Business Activities

The business activities of the Company and the Bank are also subject to regulation and supervision under various laws and regulations.

Regulations of Consumer Lending Activities

The activities of the Bank as a consumer lender are subject to regulation under various federal laws, including, for example, the Truth in Lending Act (“TILA”), the Equal Credit Opportunity Act, the Fair Credit Reporting Act, the CRA, the Servicemembers Civil Relief Act and the Military Lending Act, as well as under various state laws. TILA, as amended, and together with its implementing rule, Regulation Z, imposes a number of restrictions on credit card practices impacting rates and fees, requires that a consumer’s ability to pay be taken into account before issuing credit or increasing credit limits, and imposes revised disclosures required for open-end credit.

The CFPB recently proposed a rule to amend Regulation Z (the “Proposed CFPB Rule”) to lower the safe harbor amount for past due fees that a credit card issuer can charge on consumer credit card accounts below the amounts that are currently permitted, among other changes that could impact the amount of a past due fee that can be charged.

Depending on the underlying issue and applicable law, regulators may be authorized to impose penalties for violations of these statutes and, in certain cases, to order banks to compensate customers. Borrowers may also have a private right of action for certain violations. Federal bankruptcy and state debtor relief and collection laws may also affect the ability of a bank, including the Bank, to collect outstanding balances owed by borrowers.

Debit Card Interchange Fees and Transaction Processing

The Bank is subject to the Federal Reserve’s Regulation II, which limits the amount of interchange fees that can be charged per debit card transaction for debit card issuers with over \$10 billion in assets and places certain prohibitions on payment routing restrictions and network exclusivity.

Privacy, Data Protection and Data Security

We are subject to a variety of continuously evolving and developing laws and regulations regarding privacy, data protection and data security, including those related to the collection, storage, handling, use, disclosure, transfer, security and other processing of personal information. These areas have seen a considerable increase in legislative and regulatory activity over the past several years. At the federal level, we are subject to the Gramm-Leach-Bliley Act (“GLBA”), among other laws and regulations. Moreover, the U.S. Congress is currently considering various proposals for more comprehensive privacy, data

protection and data security legislation, to which we may be subject if passed. For example, in 2022, Congress and the federal agencies sought to institute mandatory reporting of cyber incidents that materially disrupt or degrade operations and systems or might otherwise impact U.S. critical infrastructure or national security. This resulted in enactment of the Cyber Incident Reporting for Critical Infrastructure Act (“CIRCIA”), which, once rulemaking is complete, will require, among other things, certain companies, including Capital One, to report significant cyber incidents to the Department of Homeland Security’s Cybersecurity and Infrastructure Security Agency (“CISA”) within 72 hours from the time the company reasonably believes the incident occurred, and a proposed rule by the SEC, which would mandate public disclosure of material cybersecurity incidents within four business days of determining that such an incident has occurred.

At the state level, we are subject to a number of laws and regulations, such as the California Consumer Privacy Act and its implementing regulations (as amended by the California Privacy Rights Act, the “CPRA”), which creates obligations on covered companies to, among other things, share certain information they have collected about California residents with those individuals, subject to certain exceptions. Many other states also have enacted or are in the process of enacting state-level privacy, data protection and/or data security laws and regulations, with which we may be required to comply. Significant uncertainty exists as federal and state privacy, data protection and data security laws may be interpreted and applied differently and may create inconsistent or conflicting requirements. For further discussion of privacy, data protection and cybersecurity, and related risks for our business, see “Part I—Item 1A. Risk Factors” under the headings “*We face risks related to our operational, technological and organizational infrastructure,*” “*A cyber-attack or other security incident, including one that results in the theft, loss, manipulation or misuse of information (including personal information), or the disabling of systems and access to information critical to business operations, may result in increased costs, reductions in revenue, reputational damage, legal exposure and business disruptions.*” and “*Our required compliance with applicable laws and regulations related to privacy, data protection and data security may increase our costs, reduce our revenue, increase our legal exposure and limit our ability to pursue business opportunities.*”

Anti-Money Laundering and Anti-Terrorism

The Bank Secrecy Act and the USA PATRIOT Act of 2001 (“Patriot Act”) require financial institutions, among other things, to implement a risk-based program reasonably designed to prevent money laundering and to combat the financing of terrorism, including through suspicious activity and currency transaction reporting, compliance, record-keeping and customer due diligence.

The Patriot Act also contains financial transparency laws and provides enhanced information collection tools and enforcement mechanisms to the U.S. government, including due diligence and record-keeping requirements for private banking and correspondent accounts; standards for verifying customer identification at account opening; rules to produce certain records upon request of a regulator or law enforcement agency; and rules to promote cooperation among financial institutions, regulators and law enforcement agencies in identifying parties that may be involved in terrorism, money laundering and other crimes.

The Anti-Money Laundering Act of 2020 (“AML Act”), enacted as part of the National Defense Authorization Act, requires the U.S. Treasury Department to issue National Anti-Money Laundering and Countering the Financing of Terrorism Priorities, which it did in June 2021, and to conduct studies and issue regulations that may alter some of the due diligence, recordkeeping and reporting requirements that the Bank Secrecy Act and Patriot Act impose on banks. The AML Act also promotes increased information-sharing and use of technology, and increases penalties for violations of the Bank Secrecy Act and includes whistleblower incentives, both of which could increase the prospect of regulatory enforcement.

Deposit Funding

Under the Federal Deposit Insurance Corporation Improvement Act of 1991 (“FDICIA”), only well capitalized and adequately capitalized institutions may accept “brokered deposits,” as defined by FDIC regulations. Adequately capitalized institutions, however, must obtain a waiver from the FDIC before accepting brokered deposits, and such institutions may not pay rates that significantly exceed the rates paid on deposits of similar maturity obtained from the institution’s normal market area or, for deposits obtained from outside the institution’s normal market area, the national rate on deposits of comparable maturity. See “Part II—Item 7. MD&A—Liquidity Risk Profile” for additional information.

The FDIC is authorized to terminate a bank’s deposit insurance upon a finding by the FDIC that the bank’s financial condition is unsafe or unsound or that the institution has engaged in unsafe or unsound practices or has violated any applicable rule, regulation, order or condition enacted or imposed by the bank’s regulatory agency.

Broker-Dealer Activities

Certain of our non-bank subsidiaries are subject to regulation and supervision by various federal and state authorities. Capital One Securities, Inc., KippsDeSanto & Company and TripleTree, LLC are registered broker-dealers regulated by the SEC and the Financial Industry Regulatory Authority (“FINRA”). These broker-dealer subsidiaries are subject to, among other things, net capital rules designed to measure the general financial condition and liquidity of a broker-dealer. Under these rules, broker-dealers are required to maintain the minimum net capital deemed necessary to meet their continuing commitments to customers and others, and to keep a substantial portion of their assets in relatively liquid form. These rules also limit the ability of a broker-dealer to transfer capital to its parent companies and other affiliates. Broker-dealers are also subject to regulations covering their business operations, including sales and trading practices, public offerings, publication of research reports, use and safekeeping of client funds and securities, capital structure, record-keeping and the conduct of directors, officers and employees.

Derivatives Activities

Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank Act”) establishes a regulatory framework for the governance of the over-the-counter (“OTC”) derivatives market, including swaps and security-based swaps and the registration of certain market participants as a swap dealer. CONA provisionally registered with the Commodity Futures Trading Commission (“CFTC”) as a swap dealer in 2020. Registration as a swap dealer subjects CONA to additional regulatory requirements with respect to its swaps and other derivatives activities. As a result of CONA’s swap dealer registration, it is subject to the rules of the OCC concerning capital and margin requirements for swap dealers, including the mandatory exchange of variation margin and initial margin with certain counterparties. Additionally, as a provisionally registered swap dealer, CONA is subject to requirements under the CFTC’s regulatory regime, including rules regarding business conduct standards, recordkeeping obligations, regulatory reporting and procedures relating to swaps trading. CONA’s swaps and other derivatives activities do not require it to register with the SEC as a security-based swap dealer.

Transactions with Affiliates

There are various legal restrictions on the extent to which we and our non-bank subsidiaries may borrow or otherwise engage in certain types of transactions with the Bank. Under the Federal Reserve Act and Federal Reserve regulations, the Bank and its subsidiaries are subject to quantitative and qualitative limits on extensions of credit, purchases of assets, and certain other transactions involving non-bank affiliates. In addition, transactions between the Bank and its non-bank affiliates are required to be on arm’s length terms and must be consistent with standards of safety and soundness.

Volcker Rule

We and each of our subsidiaries, including the Bank, are subject to the “Volcker Rule,” a provision of the Dodd-Frank Act that contains prohibitions on proprietary trading and certain investments in, and relationships with, covered funds (hedge funds, private equity funds and similar funds), subject to certain exemptions, in each case as the applicable terms are defined in the Volcker Rule and the implementing regulations. The implementing regulations also require that we establish and maintain a compliance program designed to ensure adherence with the requirements of the regulations.

Capital and Liquidity Regulation

The Company and the Bank are subject to capital adequacy guidelines adopted by the Federal Reserve and OCC respectively. For a further discussion of the capital adequacy guidelines, see “Part II—Item 7. MD&A—Capital Management,” “Part II—Item 7. MD&A—Liquidity Risk Profile” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 11—Regulatory and Capital Adequacy.”

Basel III and U.S. Capital Rules

The Company and the Bank are subject to regulatory capital requirements established by the Federal Reserve and the OCC, respectively (“Basel III Capital Rules”). The Basel III Capital Rules implement certain capital requirements published by the Basel Committee on Banking Supervision (“Basel Committee”), along with certain provisions of the Dodd-Frank Act and other capital provisions.

As a BHC with total consolidated assets of at least \$250 billion but less than \$700 billion and not exceeding any of the applicable risk-based thresholds, the Company is a Category III institution under the Basel III Capital Rules.

The Bank, as a subsidiary of a Category III institution, is a Category III bank. Moreover, the Bank, as an insured depository institution, is subject to prompt corrective action (“PCA”) capital regulations, as further described below.

Under the Basel III Capital Rules, we must maintain a minimum common equity Tier 1 (“CET1”) capital ratio of 4.5%, a Tier 1 capital ratio of 6.0%, and a total capital ratio of 8.0%, in each case in relation to risk-weighted assets. In addition, we must maintain a minimum leverage ratio of 4.0% and a minimum supplementary leverage ratio of 3.0%. We are also subject to the capital conservation buffer requirement and countercyclical capital buffer requirement (which is currently set at 0%), as described below. Our capital and leverage ratios are calculated based on the Basel III standardized approach framework.

We have elected to exclude certain elements of accumulated other comprehensive income (“AOCI”) from our regulatory capital as permitted for a Category III institution.

Global systemically important banks (“G-SIBs”) that are based in the U.S. are subject to an additional CET1 capital requirement known as the “G-SIB Surcharge.” We are not a G-SIB based on the most recent available data and thus we are not subject to a G-SIB Surcharge.

Stress Capital Buffer Rule

The Basel III Capital Rules require banking institutions to maintain a capital conservation buffer, composed of CET1 capital, above the regulatory minimum ratios. Under the Federal Reserve’s final rule to implement the stress capital buffer requirement, (the “Stress Capital Buffer Rule”), the Company’s “standardized approach capital conservation buffer” includes its stress capital buffer requirement (as described below), any G-SIB Surcharge (which is not applicable to us) and the countercyclical capital buffer requirement (which is currently set at 0%). Any determination to increase the countercyclical capital buffer generally would be effective twelve months after the announcement of such an increase, unless the Federal Reserve, OCC and the FDIC (collectively, “Federal Banking Agencies”) set an earlier effective date.

The Company’s stress capital buffer requirement is recalibrated every year based on the Company’s supervisory stress test results. In particular, the Company’s stress capital buffer requirement equals, subject to a floor of 2.5%, the sum of (i) the difference between the Company’s starting CET1 capital ratio and its lowest projected CET1 capital ratio under the severely adverse scenario of the Federal Reserve’s supervisory stress test plus (ii) the ratio of the Company’s projected four quarters of common stock dividends (for the fourth to seventh quarters of the planning horizon) to the projected risk-weighted assets for the quarter in which the Company’s projected CET1 capital ratio reaches its minimum under the supervisory stress test.

Based on the Company’s 2022 supervisory stress test results, the Company’s stress capital buffer requirement for the period beginning on October 1, 2022 through September 30, 2023 is 3.1%. Therefore, the Company’s minimum capital requirements plus the standardized approach capital conservation buffer for CET1 capital, Tier 1 capital and total capital ratios under the stress capital buffer framework are 7.6%, 9.1% and 11.1%, respectively, for the period from October 1, 2022 through September 30, 2023.

The Stress Capital Buffer Rule does not apply to the Bank. The capital conservation buffer for the Bank continues to be fixed at 2.5%. Accordingly, the Bank’s minimum capital requirements plus its capital conservation buffer for CET1 capital, Tier 1 capital and total capital ratios are 7.0%, 8.5% and 10.5% respectively.

If the Company or the Bank fails to maintain its capital ratios above the minimum capital requirements plus the applicable capital conservation buffer requirements, it will face increasingly strict automatic limitations on capital distributions and discretionary bonus payments to certain executive officers.

See also “Dividends, Stock Repurchases and Transfers of Funds” below for more information about the stress capital buffer determination timeline and process.

CECL Transition Rule

The Federal Banking Agencies adopted a final rule (“CECL Transition Rule”) that provides banking institutions an optional five-year transition period to phase in the impact of the current expected credit losses (“CECL”) standard on their regulatory capital (“CECL Transition Election”). We adopted the CECL standard (for accounting purposes) as of January 1, 2020, and made the CECL Transition Election (for regulatory capital purposes) in the first quarter of 2020.

Pursuant to the CECL Transition Rule, a banking institution could elect to delay the estimated impact of adopting CECL on its regulatory capital through December 31, 2021 and then phase in the estimated cumulative impact from January 1, 2022 through December 31, 2024. For the “day 2” ongoing impact of CECL during the initial two years, the Federal Banking Agencies used a uniform “scaling factor” of 25% as an approximation of the increase in the allowance under the CECL standard compared to the prior incurred loss methodology. Accordingly, from January 1, 2020 through December 31, 2021, electing banking institutions were permitted to add back to their regulatory capital an amount equal to the sum of the after-tax “day 1” CECL adoption impact and 25% of the increase in the allowance since the adoption of the CECL standard. From January 1, 2022 through December 31, 2024, the after-tax “day 1” CECL adoption impact and the cumulative “day 2” ongoing impact are being phased in to regulatory capital at 25% per year. The following table summarizes the capital impact delay and phase in period on our regulatory capital from years 2020 to 2025.

	Capital Impact Delayed		Phase In Period			
	2020	2021	2022	2023	2024	2025
“Day 1” CECL adoption impact	Capital impact delayed to 2022		25% Phased In	50% Phased In	75% Phased In	Fully Phased In
Cumulative “day 2” ongoing impact	25% scaling factor as an approximation of the increase in allowance under CECL					

Market Risk Rule

The “Market Risk Rule” supplements the Basel III Capital Rules by requiring institutions subject to the rule to adjust their risk-based capital ratios to reflect the market risk in their trading book. The Market Risk Rule generally applies to institutions with aggregate trading assets and liabilities equal to 10% or more of total assets or \$1 billion or more. As of December 31, 2022, the Company and CONA are subject to the Market Risk Rule. See “Part II—Item 7. MD&A—Market Risk Profile” for additional information.

FDICIA and Prompt Corrective Action

FDICIA requires the Federal Banking Agencies to take PCA for banks that do not meet minimum capital requirements. FDICIA establishes five capital ratio levels: well capitalized; adequately capitalized; undercapitalized; significantly undercapitalized; and critically undercapitalized. The three undercapitalized categories are based upon the amount by which a bank falls below the ratios applicable to an adequately capitalized institution. The capital categories relate to FDICIA’s PCA provisions, and such capital categories may not constitute an accurate representation of the Bank’s overall financial condition or prospects.

The Basel III Capital Rules updated the PCA framework to reflect new, higher regulatory capital minimums. For an insured depository institution to be well capitalized, it must maintain a total risk-based capital ratio of 10% or more; a Tier 1 capital ratio of 8% or more; a CET1 capital ratio of 6.5% or more; and a leverage ratio of 5% or more. An adequately capitalized depository institution must maintain a total risk-based capital ratio of 8% or more; a Tier 1 capital ratio of 6% or more; a CET1 capital ratio of 4.5% or more; a leverage ratio of 4% or more; and, for Category III and certain other institutions, a supplementary leverage ratio of 3% or more. The PCA provisions also authorize the Federal Banking Agencies to reclassify a bank’s capital category or take other action against banks that are determined to be in an unsafe or unsound condition or to have engaged in unsafe or unsound banking practices.

As an additional means to identify problems in the financial management of depository institutions, the Federal Banking Agencies established certain non-capital safety and soundness standards as required by FDICIA. The standards relate generally to operations and management, asset quality, interest rate exposure and executive compensation. The Federal Banking Agencies are authorized to take action against institutions that fail to meet such standards.

Basel III and United States Liquidity Rules

The Basel Committee has published a liquidity framework that includes two standards for liquidity risk supervision. One standard, the liquidity coverage ratio (“LCR”), seeks to promote short-term resilience by requiring organizations to hold sufficient high-quality liquid assets (“HQLAs”) to survive a stress scenario lasting for 30 days. The other standard, the net

stable funding ratio (“NSFR”), seeks to promote longer-term resilience by requiring sufficient stable funding over a one-year period based on the liquidity characteristics of the organization’s assets and activities.

The Company and the Bank are subject to the LCR standard as implemented by the Federal Reserve and OCC (the “LCR Rule”). The LCR Rule requires each of the Company and the Bank to hold an amount of eligible HQLA that equals or exceeds 100% of its respective projected adjusted net cash outflows over a 30-day period, each as calculated in accordance with the LCR Rule. The LCR Rule requires each of the Company and the Bank to calculate its respective LCR daily. In addition, the Company is required to make quarterly public disclosures of its LCR and certain related quantitative liquidity metrics, along with a qualitative discussion of its LCR.

As a Category III institution with less than \$75 billion in weighted average short-term wholesale funding, the Company’s and the Bank’s total net cash outflows are multiplied by an outflow adjustment percentage of 85%. Although the Bank may hold more HQLA than it needs to meet its LCR requirements, the LCR Rule restricts the amount of such excess HQLA held at the Bank (referred to as “Trapped Liquidity”) that can be included in the Company’s HQLA amount. Because we typically manage the Bank’s LCR to levels well above 100%, the result is additional Trapped Liquidity as the Bank’s net cash outflows are reduced by the outflow adjustment percentage of 85%.

The NSFR rule requires the Company and the Bank to maintain an amount of available stable funding, which is a weighted measure of a company’s funding sources over a one-year time horizon, calculated by applying standardized weightings to equity and liabilities based on their expected stability, that is no less than a specified percentage of its required stable funding, which is calculated by applying standardized weightings to assets, derivatives exposures and certain other items based on their liquidity characteristics. As a Category III institution, the Company and the Bank are each required to maintain available stable funding in an amount at least equal to 85% of its required stable funding. The NSFR rule includes a semi-annual public disclosure requirement, with the first disclosure due 45 days after the end of the second quarter of 2023.

Enhanced Prudential Standards and Other Related Requirements

We are subject to certain enhanced prudential standards under the Dodd-Frank Act, as amended by the Economic Growth, Regulatory Relief, and Consumer Protection Act (“EGRRCPA”) and implemented by various regulations issued by the Federal Banking Agencies. The Financial Stability Oversight Council (“FSOC”) may also issue recommendations to the Federal Reserve or other primary financial regulatory agencies to apply new or enhanced standards to certain financial activities or practices.

As part of the enhanced prudential standards, the Company is required to implement resolution planning for orderly resolution in the event it faces material financial distress or failure. The FDIC issued similar rules regarding resolution planning applicable to the Bank. In addition, the OCC has issued rules requiring banks with assets of \$250 billion or more to develop recovery plans detailing the actions they would take to remain a going concern when they experience considerable financial or operational stress, but have not deteriorated to the point that resolution is imminent.

The enhanced prudential standards also include supervisory and company-run stress testing requirements (also known as the “DFAST stress testing requirements”). In particular, the Federal Reserve is required to conduct annual stress tests on certain covered companies, including us, to ensure that the covered companies have sufficient capital to absorb losses and continue operations during adverse economic conditions, as well as to determine the Company’s stress capital buffer requirement as described above. As a Category III institution, we are also required to conduct our own stress tests and publish the results of such tests on our website or other public forum. The Company must disclose the results of its company-run stress test on a biennial basis. The OCC has adopted a similar stress test rule requiring banks with at least \$250 billion in assets, including the Bank, to conduct their own company-run stress tests. Under that OCC rule, the Bank must also disclose the results of its stress test on a biennial basis.

In addition, the Company is required to meet liquidity risk management standards, conduct internal liquidity stress tests, and maintain a 30-day buffer of highly liquid assets, in each case, consistent with the requirements of the enhanced prudential standards. These requirements are in addition to the LCR and NSFR rules, discussed above in “Basel III and United States Liquidity Rules.” The enhanced prudential standards also require that the Company comply with, and hold capital commensurate with, the requirements of, any regulations adopted by the Federal Reserve relating to capital planning and stress tests. Stress testing and capital planning regulations are discussed further below under “Dividends, Stock Repurchases and Transfers of Funds.” Finally, the Company is also required to establish and maintain an enterprise-wide Risk Management Framework (“Framework”) that includes a risk committee and a chief risk officer.

Although not a requirement of the Dodd-Frank Act, the OCC established regulatory guidelines (“Heightened Standards Guidelines”) that apply heightened standards to the governance and risk management practices of large institutions subject to its supervision, including the Bank. The Heightened Standards Guidelines establish standards for the development and implementation by the Bank of a risk governance framework.

Dividends, Stock Repurchases and Transfers of Funds

Under the Federal Reserve’s capital planning rules and related supervisory process (commonly referred to as Comprehensive Capital Analysis and Review or “CCAR” requirements), a “covered BHC,” such as the Company, must submit a capital plan to the Federal Reserve on an annual basis that contains a description of all planned capital actions, including dividends or stock repurchases, over a nine-quarter planning horizon beginning with the first quarter of the calendar year the capital plan is submitted (“CCAR cycle”).

The DFAST stress testing requirements, described above in “Enhanced Prudential Standards and Other Related Requirements,” is a complementary exercise to CCAR. It is a forward-looking exercise conducted by the Federal Reserve and each covered company to help assess whether a company has sufficient capital to absorb losses and continue operations during adverse economic conditions.

Pursuant to the capital planning rules, the Company must file its capital plan with the Federal Reserve by April 5 of each year (unless the Federal Reserve designates a later date), using data as of the end of the prior calendar year. The Federal Reserve will release the results of the supervisory stress test and notify the Company of its stress capital buffer requirement by June 30 of that year. The Company will have two business days from receipt of its stress capital buffer requirement to make any necessary adjustments to its planned capital distributions. The Federal Reserve will then finalize the stress capital buffer requirement for the Company and confirm the Company’s planned capital distributions by August 31 of that year. The Company’s final stress capital buffer requirement will be effective from the fourth quarter of the year the capital plan is submitted through the third quarter of the following year. The Company may make the planned capital distributions confirmed by the Federal Reserve. In addition, under the Stress Capital Buffer Rule, the Company is no longer required to seek prior approval of the Federal Reserve to make capital distributions in excess of those included in its capital plan so long as the Company is otherwise in compliance with the capital rule’s automatic limitations on capital distributions.

The Federal Reserve has announced that it would maintain its pre-CECL framework for calculating allowances on loans in the supervisory stress test through the 2023 cycle until the impact of CECL is better known and understood.

Dividends from the Company’s direct and indirect subsidiaries represent a major source of the funds we use to pay dividends on our capital stock, make payments on our corporate debt securities and meet our other obligations. There are various federal law limitations on the extent to which the Bank can finance or otherwise supply funds to the Company through dividends and loans. These limitations include minimum regulatory capital requirements, federal banking law requirements concerning the payment of dividends out of net profits or surplus, provisions of Sections 23A and 23B of the Federal Reserve Act and Regulation W governing transactions between an insured depository institution and its affiliates, as well as general federal regulatory oversight to prevent unsafe or unsound practices. In general, federal and applicable state banking laws prohibit insured depository institutions, such as the Bank, from making dividend distributions without first obtaining regulatory approval if such distributions are not paid out of available earnings or would cause the institution to fail to meet applicable capital adequacy standards.

Investment in the Company and the Bank

Certain acquisitions of our capital stock may be subject to regulatory approval or notice under federal or state law. Investors are responsible for ensuring that they do not, directly or indirectly, acquire shares of our capital stock in excess of the amount that can be acquired without regulatory approval, including under the BHC Act and the Change in Bank Control Act (“CIBC Act”).

Federal law and regulations prohibit any person or company from acquiring control of the Company or the Bank without, in most cases, prior written approval of the Federal Reserve or the OCC, as applicable. Control under the BHC Act exists if, among other things, a person or company acquires more than 25% of any class of our voting stock or otherwise has a controlling influence over us. A rebuttable presumption of control arises under the CIBC Act for a publicly traded BHC such as ourselves if a person or company acquires more than 10% of any class of our voting stock.

Additionally, the Bank is a “bank” within the meaning of Chapter 7 of Title 6.2 of the Code of Virginia governing the acquisition of interests in Virginia financial institutions (“Virginia Financial Institution Holding Company Act”). The Virginia

Financial Institution Holding Company Act prohibits any person or entity from acquiring, or making any public offer to acquire, control of a Virginia financial institution or its holding company without making application to, and receiving prior approval from, the Virginia Bureau of Financial Institutions.

Deposit Insurance Assessments

The Bank, as an insured depository institution, is a member of the Deposit Insurance Fund (“DIF”) maintained by the FDIC. Through the DIF, the FDIC insures the deposits of insured depository institutions up to prescribed limits for each depositor. The FDIC sets a Designated Reserve Ratio (“DRR”) for the DIF. To maintain the DIF, member institutions may be assessed an insurance premium, and the FDIC may take action to increase insurance premiums if the DRR falls below its required level.

As of June 30, 2020, the DIF reserve ratio fell to 1.30 percent. The FDIC, as required under the Federal Deposit Insurance Act, established a plan in September 2020, to restore the DIF reserve ratio to meet or exceed 1.35 percent within eight years. On October 18, 2022, the FDIC finalized a rule that increases the initial base deposit insurance assessment rate schedules by 2 basis points for all insured depository institutions to improve the likelihood that the DIF reserve ratio reaches 1.35 percent by the statutory deadline of September 30, 2028. The rule took effect on January 1, 2023 and this increase will be reflected in the Bank’s first quarterly assessment in 2023.

Source of Strength

Federal Reserve rules require a BHC to serve as a source of financial and managerial strength to its subsidiary banks (the so-called “source of strength doctrine”). In addition, the Dodd-Frank Act requires a BHC to serve as a source of financial strength to its subsidiary banks and requires the Federal Banking Agencies to jointly adopt new rules implementing this requirement. Such rules have not yet been proposed.

FDIC Orderly Liquidation Authority

The Dodd-Frank Act provides the FDIC with liquidation authority that may be used to liquidate non-bank financial companies and BHCs if the Treasury Secretary, in consultation with the President and based on the recommendation of the Federal Reserve and other appropriate Federal Banking Agencies, determines that doing so is necessary, among other criteria, to mitigate serious adverse effects on U.S. financial stability. Upon such a determination, the FDIC would be appointed receiver and must liquidate the company in a way that mitigates significant risks to financial stability and minimizes moral hazard. The costs of a liquidation of the company would be borne by shareholders and unsecured creditors and then, if necessary, by risk-based assessments on large financial companies. The FDIC has issued rules implementing certain provisions of its liquidation authority and may issue additional rules in the future.

Climate-related Developments

Climate change and the risks it may pose to financial institutions is an area of increased focus by the Federal Banking Agencies as well as federal and state legislative bodies. In the future, new regulations or guidance may be issued, or other regulatory or supervisory actions may be taken, in this area by the Federal Banking Agencies or other regulatory agencies, or new statutory requirements may be adopted. For example, each of the Federal Banking Agencies has requested feedback on its respective draft principles designed to support the identification and management of climate-related financial risks at regulated institutions with more than \$100 billion in total consolidated assets. The Federal Banking Agencies plan to use this feedback to inform future guidance with respect to climate-related financial risk.

Regulation of Businesses by Authorities Outside the United States

The Bank is subject to laws and regulations in foreign jurisdictions where it operates, currently in the U.K. and Canada. In the U.K., the Bank operates through COEP, which was established in 1999 and is an authorized payment institution regulated by the Financial Conduct Authority (“FCA”). COEP’s parent, Capital One Global Corporation, is wholly owned by the Bank and is subject to regulation by the Federal Reserve as an “agreement corporation” under the Federal Reserve’s Regulation K. COEP does not take deposits. In Canada, the Bank operates as an authorized foreign bank and is permitted to conduct its credit card business in Canada through its Canadian branch, Capital One Bank (Canada Branch) (“Capital One Canada”). Capital One Canada does not take deposits. The primary regulator of Capital One Canada is the Office of the Superintendent of Financial Institutions.

The foreign legal and regulatory requirements to which the Company's non-U.S. operations are subject include, among others, those related to consumer protection, business practices, and data security and limits on interchange fees. For more information on foreign regulatory activity concerning interchange fees, please see "Part I—Item 1A. Risk Factors" under the heading "*Our business, financial condition and results of operations may be adversely affected by merchants' increasing focus on the fees charged by credit and debit card networks and by legislation and regulation impacting such fees.*"

The Company also is subject to foreign legal and regulatory requirements regarding privacy, data protection and data security. For example, in Canada and the U.K., we are subject to the Personal Information Protection and Electronic Documents Act and the U.K. General Data Protection Regulation, respectively. In addition, subject to certain limited exceptions, the European Union ("EU") General Data Protection Regulation applies EU data protection laws to companies controlling or processing personal data of EU residents. These laws and regulations, and domestic laws and regulations that govern similar topics, may be interpreted and applied differently from country to country and may create inconsistent or conflicting requirements. For more information on privacy, data protection and data security requirements, please see "Privacy, Data Protection and Data Security."

HUMAN CAPITAL RESOURCES

Our culture is rooted in putting people first with a focus on building and maintaining a workforce which fosters an inclusive environment based on diversity of our people, ideas and the merit of our work. We prioritize the recruitment, development, recognition and retention of the 55,943 employees worldwide that we had as of December 31, 2022, whom we refer to as “associates.” The following disclosures provide information on our human capital resources, including certain human capital objectives and measures that we focus on in managing our business.

Governance of Human Capital

Our full Board of Directors oversees our human capital management, including strategies, policies and practices, and diversity, inclusion and belonging (“DIB”), and is assisted by our Board’s Compensation Committee and Governance and Nominating Committee. Our Executive Committee, a committee of senior management which includes our Chief Human Resources Officer, advises, assists and makes recommendations to our Chief Executive Officer and Board of Directors on human capital matters such as human resource practices and programs, including general employee benefits and compensation programs. Our Chief Diversity, Inclusion and Belonging Officer (“Chief DIB Officer”) provides an update, at least annually, on the progress, success and challenges on workforce representation, trends and programs to the Board of Directors and Executive Committee.

Hiring, Retention and Development

We employ a comprehensive people strategy that includes significant investments in recruiting, sourcing and associate development to attract and retain top talent from all backgrounds to help drive our business’ long-term success. We recruit through a variety of channels, including professional partnerships, job fairs, online platforms, on-campus recruiting, diversity-related recruiting events and initiatives, and internship and rotational programs, among others. We empower our associates to learn new skills, meet personalized development goals, and grow their careers. Investment in associate training and professional development is critical to maintaining our talent competitiveness. Our internal enterprise learning and development team blends multiple approaches to learning to support associate development across lines of business, levels, and roles, including online and live classroom training. In addition to formal programming provided by learning professionals, including regulatory compliance, role-specific topics and others, our peer-to-peer learning strategy empowers associates to be both learners and teachers, further enhancing a culture of learning. We also focus on cultivating talent with leadership development courses, cohort-based programs, network building and coaching.

On a quarterly basis, we review our ability to attract and retain talent needed to deliver on our strategic business objectives. Each line of business and staff group reviews hiring, tenure and attrition metrics as part of this assessment, and they implement mitigation plans when needed.

Diversity, Inclusion and Belonging

We continuously strive to empower our associates to do great work by creating an equitable and inclusive workplace with a culture of belonging that values diverse perspectives, fosters collaboration and encourages innovative ideas. We aim to create a place where associates of all backgrounds can thrive by bringing their best, most authentic selves to work. Our diversity and inclusion efforts are overseen by our Chief DIB Officer. This culture of belonging rests at the heart of our DIB efforts. Central to this effort are our business resource groups, associate-led organizations which deepen our understanding of different cultures, backgrounds and experiences, and enable associates to build connections, invest in their professional development, and support our commitment to attract, develop and retain a diverse workforce. In addition, our Chief Executive Officer and the Executive Committee engage with leaders of our business resource groups to identify opportunities to further our DIB agenda, enact positive change and build on existing initiatives designed to nurture our culture and workplace environment.

Growing the diversity of our workforce at all levels, with an emphasis on leader and executive roles, is an important component of our comprehensive DIB strategy. As of December 31, 2022, key measures of our workforce representation include:

- Of the 12 members of our Board of Directors, 3 are women and 3 are people of color;
- In the U.S., of the associates who are vice president level and above, approximately 33% are women and 28% are people of color;
- In the U.S., approximately 52% of associates are people of color; and

- Worldwide, approximately 51% of associates are women and 49% of associates are men.

Our corporate website contains additional information regarding programs and other information integral to our philosophy of diversity, inclusion and belonging. We believe in the importance of transparency and will also provide on our website the Consolidated EEO-1 Report in addition to submitting to the U.S. Equal Employment Opportunity Commission.

Compensation and Wellness

We are committed to providing a competitive total compensation package that will attract, retain and motivate talent to help drive our business' long-term success. Our benefits, including competitive parental leave, on-site health centers, flexible work solutions, company contributions to associates' 401(k) plans, educational assistance and other health, wellness, and financial benefits, are all designed to help associates grow and develop inside and outside of the workplace. Furthermore, pay equity has long been a core tenet of our pay philosophy and is central to our values. We annually evaluate base pay and incentive pay for all of our associates globally. This review and evaluation may occur more frequently as deemed necessary and prudent. We review groups of associates in similar roles, adjusting for factors that appropriately explain differences in pay such as job location and experience. Based on our analysis, our aggregated adjusted pay gap results show that we pay women 100% of what men are paid, and we pay people of color in the U.S. 100% of what white associates are paid. We use statistical modeling to understand what drives pay gaps, instill new practices to eliminate pay gaps in the future, and if we find unexplained pay gaps, we close them.

Communication and Connection

We communicate with our associates regularly to understand their perspectives and to hear their voices. Our senior leaders and Chief Executive Officer also communicate directly on societal events impacting our associates. To assess and improve associate retention and engagement, the Company surveys associates on a periodic basis with the assistance of third-party consultants and takes actions to address areas of associate concern. We encourage full participation and use the results to effect change and promote transparency.

TECHNOLOGY AND INTELLECTUAL PROPERTY

Technology/Systems

We leverage information and technology to achieve our business objectives and to develop and deliver products and services that satisfy our customers' needs. A key part of our strategic focus is the development and use of efficient, flexible computer and operational systems, such as cloud technology, to support complex marketing and account management strategies, the servicing of our customers, and the development of new and diversified products. We believe that the continued development and integration of these systems is an important part of our efforts to reduce costs, improve quality and security and provide faster, more flexible technology services. Consequently, we frequently consider our capabilities and develop or acquire systems, processes and competencies to meet our unique business requirements.

As part of our frequent consideration of our technologies, we may either develop such capabilities internally or rely on third-party service providers who have the ability to deliver technology that is of higher quality, lower cost, or both. We continue to rely on third-party service providers to help us deliver systems and operational infrastructure. These relationships include (but are not limited to): Amazon Web Services, Inc. ("AWS") for our cloud infrastructure, Total System Services LLC ("TSYS") for consumer and commercial credit card processing services for our North American and U.K. portfolios and Fidelity Information Services ("FIS") for certain of our banking systems.

We are committed to implementing safeguards designed to protect our customers' information, as well as our own information and technology. We implement backup and recovery systems, and we generally require the same of our third-party service providers. We take measures designed to mitigate against known attacks and use internal and external resources to scan for vulnerabilities in platforms, systems, and applications necessary for delivering our products and services. For a discussion of the risks associated with our use of technology systems, see "Part I—Item 1A. Risk Factors" under the headings "*We face risks related to our operational, technological and organizational infrastructure*" and "*A cyber-attack or other security incident, including one that results in the theft, loss, manipulation or misuse of information (including personal information), or the disabling of systems and access to information critical to business operations, may result in increased costs, reductions in revenue, reputational damage, legal exposure and business disruptions.*"

Intellectual Property and Other Proprietary Information

As part of our overall and ongoing strategy to protect and enhance our intellectual property, we rely on a variety of protections, including copyrights, trademarks, trade secrets, patents and certain restrictions on disclosure, solicitation and competition. We also undertake other measures to control access to, or distribution of, our other proprietary and confidential information. Any patents we may obtain may increase our competitive advantage, preserve our freedom to operate, and allow us to enter into licensing (e.g., cross-licenses) or other arrangements with third parties. For a discussion of risks associated with intellectual property, see "Part I—Item 1A. Risk Factors" under the heading "*If we are not able to protect our intellectual property, our revenue and profitability could be negatively affected.*"

FORWARD-LOOKING STATEMENTS

From time to time, we have made and will make forward-looking statements, including those that discuss, among other things: strategies, goals, outlook or other non-historical matters; projections, revenues, income, returns, expenses, capital measures, capital allocation plans, accruals for claims in litigation and for other claims against us; earnings per share, efficiency ratio, operating efficiency ratio or other financial measures for us; future financial and operating results; our plans, objectives, expectations and intentions; and the assumptions that underlie these matters.

To the extent that any such information is forward-looking, it is intended to fit within the safe harbor for forward-looking information provided by the Private Securities Litigation Reform Act of 1995.

Forward-looking statements often use words such as “will,” “anticipate,” “target,” “expect,” “estimate,” “intend,” “plan,” “goal,” “believe,” “forecast,” “outlook” or other words of similar meaning. Any forward-looking statements made by us or on our behalf speak only as of the date they are made or as of the date indicated, and we do not undertake any obligation to update forward-looking statements as a result of new information, future events or otherwise. For additional information on factors that could materially influence forward-looking statements included in this Report, see the risk factors set forth under “Part I—Item 1A. Risk Factors.” You should carefully consider the factors discussed above, and in our Risk Factors or other disclosures, in evaluating these forward-looking statements.

Numerous factors could cause our actual results to differ materially from those described in such forward-looking statements, including, among other things:

- general economic and business conditions in our local markets, including conditions affecting employment levels, interest rates, collateral values, consumer income, creditworthiness and confidence, spending and savings that may affect consumer bankruptcies, defaults, charge-offs and deposit activity;
- increases or fluctuations in credit losses and delinquencies and the impact of inaccurate estimates or inadequate reserves;
- the impact of the COVID-19 pandemic on our business, financial condition and results of operations may persist for an extended period or worsen, including labor shortages, disruption of global supply chains and inflationary pressures, and could impact our estimates of credit losses in our loan portfolios required in computing our allowance for credit losses;
- compliance with new and existing laws, regulations and regulatory expectations;
- limitations on our ability to receive dividends from our subsidiaries;
- our ability to maintain adequate capital or liquidity levels or to comply with revised capital or liquidity requirements, which could have a negative impact on our financial results and our ability to return capital to our stockholders;
- the extensive use, reliability, and accuracy of the models and data on which we rely;
- increased costs, reductions in revenue, reputational damage, legal exposure and business disruptions that can result from data protection or security incidents or a cyber-attack or other similar incidents, including one that results in the theft, loss, manipulation or misuse of information, or the disabling of systems and access to information critical to business operations;
- developments, changes or actions relating to any litigation, governmental investigation or regulatory enforcement action or matter involving us;
- the amount and rate of deposit growth and changes in deposit costs;
- our ability to execute on our strategic and operational plans;
- our response to competitive pressures;
- our business, financial condition and results of operations may be adversely affected by merchants’ increasing focus on the fees charged by credit and debit card networks and by legislation and regulation impacting such fees;

- our success in integrating acquired businesses and loan portfolios, and our ability to realize anticipated benefits from announced transactions and strategic partnerships;
- our ability to develop, operate, and adapt our operational, technology and organizational infrastructure suitable for the nature of our business;
- the success of our marketing efforts in attracting and retaining customers;
- our risk management strategies;
- changes in the reputation of, or expectations regarding, us or the financial services industry with respect to practices, products or financial condition;
- fluctuations in market interest rates or volatility in the capital markets;
- the transition away from the London Interbank Offered Rate (“LIBOR”);
- our ability to attract, retain and motivate key senior leaders and skilled employees;
- climate change manifesting as physical or transition risks;
- our assumptions or estimates in our financial statements;
- the soundness of other financial institutions and other third parties;
- our ability to invest successfully in and introduce digital and other technological developments across all our businesses;
- our ability to manage risks from catastrophic events;
- compliance with applicable laws and regulations related to privacy, data protection and data security;
- our ability to protect our intellectual property; and
- other risk factors identified from time to time in our public disclosures, including in the reports that we file with the SEC.

Item 1A. Risk Factors

The following discussion sets forth what management currently believes could be the material risks and uncertainties that could impact our businesses, results of operations and financial condition. The events and consequences discussed in these risk factors could, in circumstances we may not be able to accurately predict, recognize, or control, have a material adverse effect on our business, growth, reputation, prospects, financial condition, operating results, cash flows, liquidity, and stock price. These risk factors do not identify all risks that we face; our operations could also be affected by factors, events, or uncertainties that are not presently known to us or that we currently do not consider to present significant risks to our operations. In addition, the global economic and political climate may amplify many of these risks.

Summary of Risk Factors

The following is a summary of the Risk Factors disclosure in this Item 1A. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below and should be carefully considered, together with other information in this Form 10-K and our other filings with the SEC, before making an investment decision regarding our securities.

- Changes and instability in the macroeconomic environment, consumer confidence and customer behavior may adversely affect our business.
- Fluctuations in market interest rates or volatility in the capital markets could adversely affect our business.
- Our results of operations may be adversely affected by the effects of the COVID-19 pandemic.

- We may experience increases or fluctuations in delinquencies and credit losses, inaccurate estimates and inadequate reserves.
- We may not be able to maintain adequate capital or liquidity levels or may become subject to revised capital or liquidity requirements, which could have a negative impact on our financial results and our ability to return capital to our stockholders.
- Limitations on our ability to receive dividends from our subsidiaries could affect our liquidity and ability to pay dividends and repurchase common stock.
- We face risks related to our operational, technological and organizational infrastructure.
- A cyber-attack or other security incident, including one that results in the theft, loss, manipulation or misuse of information (including personal information), or the disabling of systems and access to information critical to business operations, may result in increased costs, reductions in revenue, reputational damage, legal exposure and business disruptions.
- Our required compliance with applicable laws and regulations related to privacy, data protection and data security may increase our costs, reduce our revenue, increase our legal exposure and limit our ability to pursue business opportunities.
- We face risks resulting from the extensive use of models and data.
- Compliance with new and existing laws, regulations and regulatory expectations is costly and complex.
- Our businesses are subject to the risk of increased litigation, government investigations and regulatory enforcement.
- We face intense competition in all of our markets.
- Our business, financial condition and results of operations may be adversely affected by merchants' increasing focus on the fees charged by credit and debit card networks and by legislation and regulation impacting such fees.
- If we are not able to invest successfully in and introduce digital and other technological developments across all our businesses, our financial performance may suffer.
- We may fail to realize the anticipated benefits of our mergers, acquisitions and strategic partnerships.
- Reputational risk and social factors may impact our results and damage our brand.
- If we are not able to protect our intellectual property, our revenue and profitability could be negatively affected.
- Our risk management strategies may not be fully effective in mitigating our risk exposures in all market environments or against all types of risk.
- The transition away from London Interbank Offered Rate may adversely affect our business.
- Our business could be negatively affected if we are unable to attract, retain and motivate key senior leaders and skilled employees.
- We face risks from catastrophic events.
- Climate change manifesting as physical or transition risks could adversely affect our businesses, operations and customers.
- We face risks from the use of or changes to assumptions or estimates in our financial statements.
- The soundness of other financial institutions and other third parties could adversely affect us.

General Economic and Market Risks

Changes and instability in the macroeconomic environment, consumer confidence and customer behavior may adversely affect our business.

We offer a broad array of financial products and services to consumers, small businesses and commercial clients. A prolonged period of economic volatility, slow growth, or a significant deterioration in economic conditions, in the U.S., Canada or the U.K., could have a material adverse effect on our financial condition and results of operations as customers default on their loans, maintain lower deposit levels or, in the case of credit card accounts, carry lower balances and reduce credit card purchase activity.

Some of the risks we face in connection with adverse changes and instability in the macroeconomic environment and changes in consumer confidence levels and behavior, include the following:

- Monetary policies and actions taken by the Federal Reserve and other central banks or governmental authorities;
- Economic deterioration due to escalation of military hostilities or other geopolitical instabilities;
- Changes in payment patterns, increases or fluctuations in delinquencies and default rates, decreased consumer spending, inflation, fluctuation in interest rates, lower demand for credit and shifts in consumer behavior, including deposits and payments;
- Increases in our charge-off rate caused by bankruptcies and reduced ability to recover debt that we have previously charged-off;
- Recent changes in usage of commercial real estate, which may have a sustained negative impact on utilization rates and values;
- Decreased reliability of the process and models, including those we use to estimate our allowance for credit losses, particularly if unexpected variations in key inputs and assumptions cause actual losses to diverge from the projections of our models and our estimates become increasingly subject to management's judgment. See *"We face risks resulting from the extensive use of models and data."*

The U.K. and the EU agreed to a free trade deal at the end of 2020 relating to the U.K.'s exit from the EU. Although this deal has provided greater near-term stability, there is still some degree of uncertainty as to the relationship between the U.K. and the EU, which may increase volatility in the regional and global financial markets. In addition, the global economy, including economic conditions in the U.K., has been negatively impacted by the war between Russia and Ukraine. Continued escalation of geopolitical tensions related to the war, including increased trade barriers or restrictions on global trade, could further deteriorate international economic conditions. We continue to consider and monitor the potential impacts of the relationship between the U.K. and EU, as well as the war between Russia and Ukraine.

Fluctuations in market interest rates or volatility in the capital markets could adversely affect our business.

Like other financial institutions, our business is sensitive to interest rate movements and the performance of the capital markets.

We rely on access to the capital markets to fund our operations and to grow our business. Our ability to borrow from other financial institutions or to engage in funding transactions on favorable terms or at all could be adversely affected by disruptions, uncertainty or volatility in the capital markets or other events, including changing credit rating agency requirements. For example, a credit rating downgrade could affect our ability to access the capital markets, increase our funding costs and have a negative impact on our results of operations. Additionally, increased charge-offs, rising interest rates and other events may cause our securitization transactions to amortize earlier than scheduled or reduce the value of the securities that we hold for liquidity purposes, which could accelerate our need for additional funding from other sources.

Additionally, changes in interest rates could adversely affect the results of our operations and financial condition. For example, we borrow money from other institutions and depositors, which we use to make loans to customers and invest in debt securities and other interest-earning assets. We earn interest on these loans and assets and pay interest on the money we borrow from institutions and depositors. In response to inflationary pressures, the Federal Reserve has reversed its policy of maintaining the low benchmark federal funds interest rate over the last several years. In March 2022, the Federal Reserve began increasing the benchmark federal funds interest rate and has signaled its intention to continue to raise interest rates in an effort to tame

inflation. Thus, the amount of interest that we pay on certain borrowings has increased and could increase further. Additionally, a shrinking yield premium between short-term and long-term market interest rates and in the relationship between our funding basis rate and our lending basis rate and inflation could affect our profitability.

We assess our interest rate risk by estimating the effect on our earnings, economic value and capital under various scenarios that differ based on assumptions about the direction and the magnitude of interest rate changes. We take risk mitigation actions based on those assessments. We face the risk that changes in interest rates could materially reduce our net interest income and our earnings, especially if actual conditions turn out to be materially different than those we assumed. See “Part II—Item 7. MD&A—Market Risk Profile” for additional information.

Furthermore, interest rate fluctuations and competitor responses to those changes may affect the rate of customer prepayments for auto and other term loans and may affect the balances customers carry on their credit cards and their balances in the deposits accounts they have with us. For example, increases in interest rates increase debt service requirements for some of our borrowers, which may adversely affect those borrowers’ ability to pay as contractually obligated. This could result in additional or fluctuating delinquencies or charge-offs and negatively impact our results of operations. These changes can reduce the overall yield on our interest-earning asset portfolio. An inability to attract or maintain deposits could materially affect our ability to fund our business and our liquidity position. Many other financial institutions have increased their reliance on deposit funding and, as such, we expect continued competition in the deposit markets. We cannot predict how this competition will affect our costs. If we are required to offer higher interest rates to attract or maintain deposits, our funding costs will be adversely impacted. Changes in valuations in the debt and equity markets could have a negative impact on the assets we hold in our investment portfolio. Such market changes could also have a negative impact on the valuation of assets for which we provide servicing.

Our results of operations may be adversely affected by the effects of the COVID-19 pandemic.

Although the global economy has begun to recover from the COVID-19 pandemic, certain adverse consequences of the pandemic, including labor shortages, disruptions of global supply chains and inflationary pressures, continue to impact the macroeconomic environment and could adversely affect our business. Should these ongoing effects of the pandemic continue for an extended period or worsen, our purchase volume, loan balances and the overall demand for our products and services may be significantly impacted, which could adversely affect our financial condition and other results of operations. In addition, we could experience higher credit losses in our loan portfolios and increases in our allowance for credit losses beyond current levels. We could also experience impairments of other financial assets and other negative impacts on our financial position, including possible constraints on liquidity and capital, as well as higher costs of capital. Long-term consequences of the COVID-19 pandemic on our business, results of operations and financial condition, as well as our capital and liquidity ratios and our ability to take capital actions, will depend on future developments that remain uncertain, including, for example, future actions taken by governmental authorities, central banks and other third parties in response to the pandemic and the effects on our customers, counterparties, associates and third-party service providers.

In the third quarter of 2022, we moved our associates to a hybrid work model. As a result we may experience increased costs and/or disruption as we experiment with hybrid work models, in addition to potential effects on our ability to operate effectively and maintain our corporate culture. We will continue to monitor local conditions to ensure the safety of our associates and customers while providing critical banking services. We may take further actions as required by government authorities or that we otherwise determine are in the best interests of our customers, associates and business partners. These measures could impair our ability to perform critical functions and may adversely impact our results of operations.

Credit Risk

We may experience increases or fluctuations in delinquencies and credit losses, inaccurate estimates and inadequate reserves.

Like other lenders, we face the risk that our customers will not repay their loans. A customer’s ability and willingness to repay us can be adversely affected by decreases in the income of the borrower or increases in their payment obligations to other lenders, whether as a result of higher debt levels or rising interest rates, by rising levels of inflation, or by restricted availability of credit generally. We may fail to quickly identify and reduce our exposure to customers that are likely to default on their payment obligations, whether by closing credit lines or restricting authorizations. Our ability to manage credit risk also is affected by legal or regulatory changes (such as restrictions on collections, bankruptcy laws, minimum payment regulations and

re-age guidance), competitors' actions and consumer behavior, and depends on the effectiveness of our collections staff, techniques and models.

Rising losses or leading indicators of rising losses (such as higher delinquencies, charge-offs, higher rates of nonperforming loans, higher bankruptcy rates, lower collateral values, elevated unemployment rates or changing market terms) may require us to increase our allowance for credit losses, which would decrease our profitability if we are unable to raise revenue or reduce costs to compensate for higher losses. In particular, we face the following risks in this area:

- *Missed Payments:* Our customers may miss payments. Loan charge-offs (including from bankruptcies) are generally preceded by missed payments or other indications of worsening financial condition for our customers. Historically, customers are more likely to miss payments during an economic downturn, recession, periods of high unemployment, or prolonged periods of slow economic growth. In addition, we face the risk that consumer and commercial customer behavior may change (for example, an increase in the unwillingness or inability of customers to repay debt, which may be heightened by increasing interest rates or levels of consumer debt), causing a long-term rise or fluctuations in delinquencies and charge-offs.
- *Incorrect Estimates of Expected Losses:* The credit quality of our portfolio can have a significant impact on our earnings. We allow for and reserve against credit risks based on our assessment of expected credit losses in our loan portfolios. This process, which is critical to our financial condition and results of operations, requires complex judgments, including forecasts of economic conditions. We may underestimate our expected losses and fail to hold an allowance for credit losses sufficient to account for these losses. Incorrect assumptions could lead to material underestimations of expected credit losses and an inadequate allowance for credit losses. See “*We face risks resulting from the extensive use of models and data.*”
- *Inaccurate Underwriting:* Our ability to accurately assess the creditworthiness of our customers may diminish, which could result in an increase in our credit losses and a deterioration of our returns. See “*Our risk management strategies may not be fully effective in mitigating our risk exposures in all market environments or against all types of risk.*”
- *Business Mix:* We engage in a diverse mix of businesses with a broad range of potential credit exposure. Because we originate a relatively greater proportion of consumer loans in our loan portfolio compared to other large bank peers and originate both prime and subprime credit card accounts and auto loans, we may experience higher delinquencies and a greater number of accounts charging off, as well as greater fluctuations in those metrics, compared to other large bank peers, which could result in increased credit losses, operating costs and regulatory scrutiny. Additionally, a change in this business mix over time to include proportionally more consumer loans or subprime credit card accounts or auto loans could adversely affect the credit quality of our portfolio.
- *Increasing Charge-off Recognition/Allowance for Credit Losses:* We account for the allowance for credit losses according to accounting and regulatory guidelines and rules, including Financial Accounting Standards Board (“FASB”) standards and the Federal Financial Institutions Examination Council (“FFIEC”) Account Management Guidance. We measure our allowance for credit losses under the CECL standard, which is based on management’s best estimate of expected lifetime credit losses. The impact of measuring our allowance for credit losses on our results will depend on the characteristics of our financial instruments, economic conditions, and our economic and loss forecasts. The application of the CECL standard may require us to increase reserves faster and to a higher level in an economic downturn, resulting in greater adverse impact to our results and our capital ratios than we would have experienced in similar circumstances prior to the adoption of CECL. In addition, because credit cards represent a significant portion of our product mix, we could be disproportionately affected by use of the CECL standard, as compared to our large bank peers with a different product mix.

- *Insufficient Asset Values:* The collateral we have on secured loans could be insufficient to compensate us for credit losses. When customers default on their secured loans, we attempt to recover collateral where permissible and appropriate. However, the value of the collateral may not be sufficient to compensate us for the amount of the unpaid loan, and we may be unsuccessful in recovering the remaining balance from our customers. Decreases in real estate and other asset values adversely affect the collateral value for our commercial lending activities, while the auto business is similarly exposed to collateral risks arising from the auction markets that determine used car prices. Borrowers may be less likely to continue making payments on loans if the value of the property used as collateral for the loan is less than what the borrower owes, even if the borrower is still financially able to make the payments. In that circumstance, the recovery of such property could be insufficient to compensate us for the value of these loans upon a default. In our auto business, business and economic conditions that negatively affect household incomes, housing prices and consumer behavior, as well as technological advances that make older cars obsolete faster, could decrease (i) the demand for new and used vehicles and (ii) the value of the collateral underlying our portfolio of auto loans, which could cause the number of consumers who become delinquent or default on their loans to increase.
- *Geographic and Industry Concentration:* Although our consumer lending is geographically diversified, approximately 40% of our commercial real estate loan portfolio is concentrated in the Northeast region. The regional economic conditions in the Northeast affect the demand for our commercial products and services as well as the ability of our customers to repay their commercial real estate loans and the value of the collateral securing these loans. An economic downturn or prolonged period of slow economic growth in, or a catastrophic event or natural disaster that disproportionately affects the Northeast region could have a material adverse effect on the performance of our commercial real estate loan portfolio and our results of operations. In addition, our Commercial Banking strategy includes an industry-specific focus. If any of the industries that we focus on experience changes, we may experience increased credit losses and our results of operations could be adversely impacted.

Capital and Liquidity Risk

We may not be able to maintain adequate capital or liquidity levels or may become subject to revised capital or liquidity requirements, which could have a negative impact on our financial results and our ability to return capital to our stockholders.

Financial institutions are subject to extensive and complex capital and liquidity requirements, which are subject to change. These requirements affect our ability to lend, grow deposit balances, make acquisitions and distribute capital. Failure to maintain adequate capital or liquidity levels, whether due to adverse developments in our business or the economy or to changes in the applicable requirements, could subject us to a variety of restrictions and/or remedial actions imposed by our regulators. These include limitations on the ability to pay dividends and/or repurchase shares and the issuance of a capital directive to increase capital. Such limitations or capital directive could have a material adverse effect on our business and results of operations.

We consider various factors in the management of capital, including the impact of both internal and supervisory stress scenarios on our capital levels as determined by our internal modeling and the Federal Reserve's estimation of losses in supervisory stress scenarios that are used to annually set our stress capital buffer requirement. There can be significant differences between our modeling and the Federal Reserve's projections for a given supervisory stress scenario and between the capital needs suggested by our internal stress scenarios and the supervisory scenarios. Therefore, although our estimated capital levels under stress disclosed as part of the stress testing processes may suggest that we have a particular capacity to return capital to stockholders and remain well capitalized under stress, the Federal Reserve's modeling, our internal modeling of another scenario and/or other factors related to our capital management process may reflect a lower capacity to return capital to stockholders than that indicated by the projections released in the stress testing processes. This in turn, could lead to restrictions on our ability to pay dividends and engage in share repurchases. See "Part I—Item 1. Business—Supervision and Regulation" for additional information.

We also consider various factors in the management of liquidity, including maintaining sufficient liquid assets to meet the requirements of several internal and regulatory stress tests. There can be significant differences in estimated liquidity needs between internal and regulatory stress testing, and liquidity resources required to meet regulatory requirements, such as applicable LCR and NSFR requirements, may exceed what would otherwise be required to satisfy internal liquidity metrics and stress testing. Regulatory liquidity stress testing and regulatory liquidity requirements may, therefore, require us to take actions to increase our liquid assets or alter our activities or funding sources, which could negatively affect our financial results or our

ability to return capital to our stockholders. See “Part I—Item 1. Business—Supervision and Regulation” for additional information.

In addition, changes to applicable capital and liquidity requirements could result in increased expenses or unexpected or new limitations on our ability to pay dividends and engage in share repurchases.

Limitations on our ability to receive dividends from our subsidiaries could affect our liquidity and ability to pay dividends and repurchase common stock.

We are a separate and distinct legal entity from our subsidiaries, including the Bank and our broker-dealer subsidiaries. Dividends to us from these direct and indirect subsidiaries have represented a major source of funds for us to pay dividends on our common and preferred stock, repurchase common stock, make payments on corporate debt securities and meet other obligations. These capital distributions may be limited by law, regulation or supervisory policy. There are various federal law limitations on the extent to which the Bank can finance or otherwise supply funds to us through dividends and loans. These limitations include minimum regulatory capital requirements, federal banking law requirements concerning the payment of dividends out of net profits or surplus, and Sections 23A and 23B of the Federal Reserve Act and Regulation W governing transactions between an insured depository institution and its affiliates, as well as general federal regulatory oversight to prevent unsafe or unsound practices. Our broker-dealer subsidiaries are also subject to laws and regulations, including net capital requirements, that may limit their ability to pay dividends or make other distributions to us. If our subsidiaries’ earnings are not sufficient to make dividend payments to us while maintaining adequate capital levels, our liquidity may be affected and we may not be able to make dividend payments to our common or preferred stockholders, repurchase our common stock, make payments on outstanding corporate debt securities or meet other obligations, each and any of which could have a material adverse impact on our results of operations, our financial position or the perception of our financial health. The frequency and size of any future dividends to our stockholders and stock repurchases will depend upon regulatory limitations imposed by the Federal Banking Agencies and the SEC and our results of operations, financial condition, capital levels, cash requirements, future prospects, regulatory review and other factors as further described in “Part I—Item 1. Business—Supervision and Regulation.”

Operational Risk

We face risks related to our operational, technological and organizational infrastructure.

Our ability to retain and attract customers depends on our ability to develop, operate, and adapt our technology and organizational infrastructure in a rapidly changing environment. In addition, we must accurately process, record and monitor an increasingly large number of complex transactions. Digital technology, cloud-based services, data and software development are deeply embedded into our business model and how we work.

Similar to other large corporations in our industry, we are exposed to operational risk that can manifest itself in many ways, such as errors in execution, inadequate processes, inaccurate models, faulty or disabled technological infrastructure, malicious disruption and fraud by employees or persons outside of our company, whether through attacks on Capital One directly or on our customers. In addition, the increasing use of near real-time money movement solutions, among other risks, increases the complexity of preventing, detecting and recovering fraudulent transactions. In addition, we are heavily dependent on the security, capability, integrity and continuous availability of the technology systems that we use to manage our internal financial and other systems, monitor risk and compliance with regulatory requirements, provide services to our customers, develop and offer new products and communicate with stakeholders. We also face risk of adverse customer impacts and business disruption arising from the execution of strategic initiatives and operational plans we may pursue across our operations.

If we do not maintain the necessary operational, technological and organizational infrastructure to operate our business, including to maintain the resiliency and security of that infrastructure, our business and reputation could be materially adversely affected. We also are subject to disruptions to our systems arising from events that are wholly or partially beyond our control, which may include computer viruses, electrical or telecommunications outages, bugs, design flaws in foundational components or platforms, availability and quality of vulnerability patches from key vendors, cyber-attacks and other security incidents, natural disasters, other damage to property or physical assets, or events arising from local or larger scale politics, including terrorist acts. Any failure to maintain our infrastructure or prevent disruption of our systems and applications could diminish our ability to operate our businesses, service customer accounts and protect customers’ information, or result in potential liability to customers, reputational damage, regulatory intervention and customers’ loss of confidence in our businesses, any of which could result in a material adverse effect.

We also rely on the business infrastructure and systems of third parties with which we do business and to whom we outsource the operation, maintenance and development of our information technology and communications systems. We have substantially migrated all aspects of our core information technology systems and customer-facing applications to third-party cloud infrastructure platforms, principally AWS. If we fail to architect, administer or oversee these environments in a well-managed, secure and effective manner, or if such platforms become unavailable, are disrupted, fail to scale, do not operate as designed, or do not meet their service level agreements for any reason, we may experience unplanned service disruption or unforeseen costs which could result in material harm to our business and operations. We must successfully develop and maintain information, financial reporting, disclosure, privacy, data protection, data security and other controls adapted to our reliance on outside platforms and providers. In addition, AWS, or other service providers could experience system or telecommunication breakdowns or failures, outages, degradation in service, downtime, failure to scale, software bugs, cyber-attacks and other security incidents, adverse changes to financial condition, bankruptcy, or other adverse conditions, (including conditions which interfere with our access to and use of AWS), which could have a material adverse effect on our business and reputation. Thus, the substantial amount of our infrastructure that we outsource to AWS or to other third parties may increase our risk exposure.

Any disruptions, failures or inaccuracies of our operational processes, technology systems and models, including those associated with improvements or modifications to such technology systems and models, could cause us to be unable to market and manage our products and services, manage our risk, meet our regulatory obligations or report our financial results in a timely and accurate manner, all of which could have a negative impact on our results of operations. In addition, our ongoing investments in infrastructure, which are necessary to maintain a competitive business, integrate acquisitions and establish scalable operations, may increase our expenses. As our business develops, changes or expands, additional expenses can arise as a result of a reevaluation of business strategies, management of outsourced services, asset purchases or other acquisitions, structural reorganization, compliance with new laws or regulations, the integration of newly acquired businesses, or the prevention or occurrence of cyber-attacks and other security incidents. If we are unable to successfully manage our expenses, our financial results will be negatively affected. Changes to our business, including those resulting from our strategic objectives, also requires robust governance to ensure that our objectives are executed as intended without adversely impacting our customers, associates, operations or financial performance. Ineffective change management oversight and governance over the execution of our strategic objectives could expose us to operational, strategic and reputational risk and could negatively impact customers or our financial performance.

A cyber-attack or other security incident, including one that results in the theft, loss, manipulation or misuse of information (including personal information), or the disabling of systems and access to information critical to business operations, may result in increased costs, reductions in revenue, reputational damage, legal exposure and business disruptions.

Our ability to provide our products and services, many of which are internet-based, and communicate with our customers, depends upon the management and safeguarding of information systems and infrastructure, networks, software, data, technology, methodologies and business secrets, including those of our service providers. Our products and services involve the collection, authentication, management, usage, storage, transmission and eventual destruction of sensitive and confidential information, including personal information, regarding our customers and their accounts, our employees, our partners and other third parties with which we do business. We also have arrangements in place with third parties through which we share and receive information about their customers who are or may become our customers. The financial services industry, including Capital One, is particularly at risk because of the use of and reliance on digital banking products and other digital services, including mobile banking products, such as mobile payments, and other internet- and cloud-based products and applications, and the development of additional remote connectivity solutions, which increase cybersecurity risks and exposure. Consumer acceptance and use of such digital banking products and services has substantially increased since the onset of the COVID pandemic.

Technologies, systems, networks, and other devices of Capital One, as well as those of our employees, service providers, partners and other third parties with whom we interact, have been and may continue to be the subject of cyber-attacks and other security incidents, including computer viruses, hacking, malware, ransomware, supply chain attacks, vulnerabilities, credential stuffing, or phishing or other forms of social engineering. Such cyber-attacks and other security incidents are designed to lead to various harmful outcomes, such as unauthorized transactions in Capital One accounts, unauthorized or unintended access to or release, gathering, monitoring, disclosure, loss, destruction, corruption, disablement, encryption, misuse, modification or other processing of confidential or sensitive information (including personal information), intellectual property, software, methodologies or business secrets, disruption, sabotage or degradation of service, systems or networks, or other damage. These threats may derive from, among other things, error, fraud or malice on the part of our employees, insiders, or third parties or may result from accidental technological failure or design flaws. Any of these parties may also attempt to fraudulently induce

employees, service providers, customers, partners or other third-party users of our systems or networks to disclose confidential or sensitive information (including personal information) in order to gain access to our systems, networks or data or that of our customers, partners, or third parties with whom we interact, or to unlawfully obtain monetary benefit through misdirected or otherwise improper payment. For instance, any party that obtains our confidential or sensitive information (including personal information) through a cyber-attack or other security incident may use this information for ransom, to be paid by us or a third party, as part of a fraudulent activity that is part of a broader criminal activity, or for other illicit purposes.

For example, on July 29, 2019, we announced that on March 22 and 23, 2019 an outside individual gained unauthorized access to our systems (the “Cybersecurity Incident”). This individual obtained certain types of personal information relating to people who had applied for our credit card products and to our credit card customers. While the Cybersecurity Incident has been remediated, it has resulted in fines, litigation, settlements, government investigations and other regulatory enforcement inquiries, as well as consent orders with the Federal Reserve and the OCC. On August 31, 2022, the OCC terminated its consent order. Cyber and information security risks for large financial institutions like us continue to increase due to the proliferation of new technologies, the industry-wide shift to reliance upon the internet to conduct financial transactions, and the increased sophistication and activities of malicious actors, organized crime, perpetrators of fraud, hackers, terrorists, activists, extremist parties, formal and informal instrumentalities of foreign governments, state-sponsored actors and other external parties. In addition, our customers access our products and services using personal devices that are necessarily external to our security control systems. There has also been a significant proliferation of consumer information available on the internet resulting from breaches of third-party entities, including personal information, log-in credentials and authentication data. While we were not directly involved in these third-party breach events, the stolen information can create a threat for our customers if their Capital One log-in credentials are the same as or similar to the credentials that have been compromised on other internet sites. This threat could include the risk of unauthorized account access, data loss and fraud. The use of artificial intelligence, “bots” or other automation software can increase the velocity and efficacy of these types of attacks. As our employees are currently operating under our hybrid work model, our remote interaction with service providers, partners and other third parties on systems, networks and environments over which we have less control increases our cybersecurity risk exposure. We will likely face an increasing number of attempted cyber-attacks as we expand our mobile and other internet-based products and services, as well as our usage of mobile and cloud technologies and as we provide more of these services to a greater number of retail banking customers.

The methods and techniques employed by malicious actors change frequently, are increasingly sophisticated and often are not fully recognized or understood until after they have occurred, and some techniques could occur and persist for an extended period of time before being detected and remediated. For example, although we immediately fixed the configuration vulnerability that was exploited in the Cybersecurity Incident once we discovered the unauthorized access, a period of time elapsed between the occurrence of the unauthorized access and the time when we discovered it. In other circumstances, we and our service providers and other third parties with which we interact may be unable to anticipate or identify certain attack methods or techniques in order to implement effective preventative or detective measures or mitigate or remediate the damages caused in a timely manner. We may also be unable to hire, develop and retain talent that keeps pace with the rapidly changing cyber threat landscape, and which are capable of preventing, detecting, mitigating or remediating these risks. Although we seek to maintain a robust suite of authentication and layered information security controls, any one or combination of these controls could fail to prevent, detect, mitigate or remediate these risks in a timely manner.

A disruption or breach, including as a result of a cyber-attack such as the Cybersecurity Incident, or media reports of perceived security vulnerabilities at Capital One or at our service providers, could result in significant legal and financial exposure, regulatory intervention, litigation, remediation costs, card reissuance, supervisory liability, damage to our reputation or loss of confidence in the security of our systems, products and services that could adversely affect our business. There can be no assurance that unauthorized access or cyber incidents similar to the Cybersecurity Incident will not occur or that we will not suffer material losses in the future. If future attacks are successful or if customers are unable to access their accounts online for other reasons, it could adversely impact our ability to service customer accounts or loans, complete financial transactions for our customers or otherwise operate any of our businesses or services. In addition, a breach or attack affecting one of our service providers or other third parties with which we interact could harm our business even if we do not control the service that is attacked.

Further, our ability to monitor our service providers’ cybersecurity practices is limited. Although the agreements that we have in place with our service providers generally include requirements relating to cybersecurity and data privacy, we cannot guarantee that such agreements will prevent a cyber incident impacting our systems or information or enable us to obtain adequate or any reimbursement from our service providers in the event we should suffer any such incidents. However, due to

applicable laws and regulations or contractual obligations, we may be held responsible for cyber incidents attributed to our service providers as they relate to the information we share with them.

In addition, the increasing prevalence and the evolution of cyber-attacks and other efforts to breach or disrupt our systems or networks or those of our customers, service providers, partners or other third parties with which we interact has led, and will likely continue to lead, to increased costs to us with respect to preventing, detecting, mitigating and remediating these risks, as well as any related attempted fraud. In order to address ongoing and future risks, we must expend significant resources to support protective security measures, investigate and remediate any vulnerabilities of our information systems and infrastructure and invest in new technology designed to mitigate security risks. Further, high profile cyber incidents at Capital One or other large financial institutions could lead to a general loss of customer confidence in financial institutions that could negatively affect us, including harming the market perception of the effectiveness of our security measures or the global financial system in general, which could result in reduced use of our financial products. We have insurance against some cyber risks and attacks; nonetheless, our insurance coverage may not be sufficient to offset the impact of a material loss event (including if our insurer denies coverage as to any particular claim in the future), and such insurance may increase in cost or cease to be available on commercially reasonable terms, or at all, in the future.

Our required compliance with applicable laws and regulations related to privacy, data protection and data security may increase our costs, reduce our revenue, increase our legal exposure and limit our ability to pursue business opportunities.

We are subject to a variety of continuously evolving and developing laws and regulations in the United States at the federal, state and local level regarding privacy, data protection and data security, including those related to the collection, storage, handling, use, disclosure, transfer, security and other processing of personal information. For example, at the federal level, we are subject to the GLBA, among other laws and regulations. Moreover, the U.S. Congress is currently considering various proposals for more comprehensive privacy, data protection and data security legislation, to which we may be subject if passed. In addition, in November 2021, the Federal Reserve, OCC, and FDIC issued a final rule that, among other things, requires all banking organizations in the United States to notify their primary federal regulators of certain material computer-security incidents as soon as possible and no later than 36 hours after determining that the incident has occurred. The enactment of CIRCIA, once rulemaking is complete, will require, among other things, certain companies to report significant cyber incidents to the CISA within 72 hours from the time the company reasonably believes the incident occurred, and a proposed rule by the SEC, if enacted, would mandate public disclosure of material cybersecurity incidents within four business days of determining that such an incident has occurred. At the state level, California has enacted the California Privacy Rights Act (“CPRA”), and various other states also have enacted or are in the process of enacting state-level privacy, data protection and/or data security laws and regulations, with which we may be required to comply.

We also are, or may become, subject to continuously evolving and developing laws and regulations in other jurisdictions regarding privacy, data protection and data security. For example, in Canada we are subject to the Personal Information Protection and Electronic Documents Act (“PIPEDA”). In addition, subject to limited exceptions, the EU General Data Protection Regulation (“EU GDPR”) applies EU data protection law to all companies processing personal data of EU residents, regardless of the company’s location. We also are subject to the UK General Data Protection Regulation (“U.K. GDPR”), which is how the EU GDPR has been implemented into U.K. law. These laws and regulations, and similar laws and regulations in other jurisdictions, impose strict requirements regarding the collection, storage, handling, use, disclosure, transfer, security and other processing of personal information, which may have adverse consequences, including significant compliance costs and severe monetary penalties for non-compliance. Significant uncertainty exists as privacy, data protection, and data security laws may be interpreted and applied differently from country to country and may create inconsistent or conflicting requirements.

Further, we make public statements about our use, collection, disclosure and other processing of personal information through our privacy policies, information provided on our website and press statements. Although we endeavor to comply with our public statements and documentation, we may at times fail to do so or be alleged to have failed to do so. The publication of our privacy policies and other statements that provide promises and assurances about privacy, data protection and data security can subject us to potential government or legal action if they are found to be deceptive, unfair or misrepresentative of our actual practices.

Our efforts to comply with GLBA, CPRA, PIPEDA, EU GDPR, U.K. GDPR and other privacy, data protection and data security laws and regulations, as well as our posted privacy policies, and related contractual obligations to third parties, entail substantial expenses, may divert resources from other initiatives and projects, and could limit the services we are able to offer. Furthermore, enforcement actions and investigations by regulatory authorities related to data security incidents and privacy, data protection and data security violations continue to increase. The enactment of more restrictive laws or regulations, or future

enforcement actions or investigations, could impact us through increased costs or restrictions on our business, and any noncompliance or perceived noncompliance could result in monetary or other penalties, harm to our reputation and significant legal liability.

We face risks resulting from the extensive use of models and data.

We rely on quantitative models and our ability to manage and aggregate data in an accurate and timely manner to assess and manage our various risk exposures, create estimates and forecasts, and manage compliance with regulatory capital requirements. Models may be used in processes such as determining the pricing of various products, grading loans and extending credit, measuring interest rate and other market risks, predicting deposit levels or loan losses, assessing capital adequacy, calculating managerial and regulatory capital levels, estimating the value of financial instruments and balance sheet items, and other operational functions. Our risk reporting and management, including business decisions based on information incorporating models, depend on the effectiveness of our models and our policies, programs, processes and practices governing how data or models, as applicable, are acquired, validated, stored, protected, processed and analyzed. Any issues with the quality or effectiveness of our data aggregation and validation procedures, as well as the quality and integrity of data inputs, formulas or algorithms, could result in inaccurate forecasts, ineffective risk management practices or inaccurate risk reporting. In addition, models based on historical data sets might not be accurate predictors of future outcomes and their ability to appropriately predict future outcomes may degrade over time. While we continuously update our policies, programs, processes and practices, many of our data management, modeling, aggregation and implementation processes are manual and may be subject to human error, data limitations, process delays or system failure. Failure to manage data effectively and to aggregate data in an accurate and timely manner may limit our ability to manage current and emerging risk, to produce accurate financial, regulatory and operational reporting as well as to manage changing business needs. If our Framework is ineffective, we could suffer unexpected losses which could materially adversely affect our results of operation or financial condition. Also, any information we provide to the public or to our regulators based on poorly designed or implemented models could be inaccurate or misleading. Some of the decisions that our regulators make, including those related to capital distribution to our stockholders, could be affected adversely due to the perception that the quality of the models used to generate the relevant information is insufficient.

Legal and Regulatory Risk

Compliance with new and existing laws, regulations and regulatory expectations is costly and complex.

A wide array of laws and regulations, including banking and consumer lending laws and regulations, apply to every aspect of our business. We and our subsidiaries are also subject to supervision and examination by multiple regulators, and the manner in which our regulators interpret applicable laws and regulations may affect how we comply with them. Failure to comply with these laws and regulations, even if the failure was inadvertent or reflects a difference in interpretation, could subject us to restrictions on our business activities, fines, criminal sanctions and other penalties, and/or damage to our reputation with regulators, our customers or the public. Hiring, training and retaining qualified compliance and legal personnel, and establishing and maintaining risk management and compliance-related systems, infrastructure and processes, is difficult and may lead to increased expenses. These efforts and the associated costs could limit our ability to invest in other business opportunities.

Applicable rules and regulations may affect us disproportionately compared to our competitors or in an unforeseen manner. For example, we have a large number of customer accounts in our credit card and auto lending businesses and we have made the strategic choice to originate and service subprime credit card and auto loans, which typically have higher delinquencies and charge-offs than prime customer accounts. As a result, we have significant involvement with credit bureau reporting and the collection and recovery of delinquent and charged-off debt, primarily through customer communications, the filing of litigation against customers in default, the periodic sale of charged-off debt and vehicle repossession. These and other consumer lending activities are subject to enhanced legal and regulatory scrutiny from regulators, courts and legislators. Any future changes to or legal liabilities resulting from our business practices in these areas, including our debt collection practices and the fees we charge, whether mandated by regulators, courts, legislators or otherwise, could have a material adverse impact on our financial condition.

The legislative and regulatory environment is beyond our control, may change rapidly and unpredictably, and may negatively influence our revenue, costs, earnings, growth, liquidity and capital levels. For example, there may be future rulemaking in emerging regulatory areas such as climate-related risks and new technologies. In addition, some rules and regulations may be subject to litigation or other challenges that delay or modify their implementation and impact on us. Adoption of new technologies, such as distributed ledger technologies, tokenization, cloud computing, artificial intelligence and machine learning technologies, can present unforeseen challenges in applying and relying on existing compliance systems.

Certain laws and regulations, and any interpretations and applications with respect thereto, are generally intended to protect consumers, borrowers, depositors, the DIF, the U.S. banking and financial system, and financial markets as a whole, but not stockholders. Our success depends on our ability to maintain compliance with both existing and new laws and regulations. For a description of the material laws and regulations, including those related to the consumer lending business, to which we are subject, see “Part I—Item 1. Business—Supervision and Regulation.”

Our businesses are subject to the risk of increased litigation, government investigations and regulatory enforcement.

Our businesses are subject to increased litigation, government investigations and other regulatory enforcement risks as a result of a number of factors and from various sources, including the highly regulated nature of the financial services industry, the focus of state and federal prosecutors on banks and the financial services industry and the structure of the credit card industry.

Given the inherent uncertainties involved in litigation, government investigations and regulatory enforcement decisions, and the very large or indeterminate damages sought in some matters asserted against us, there can be significant uncertainty as to the ultimate liability we may incur from these kinds of matters. The finding, or even the assertion, of substantial legal liability against us could have a material adverse effect on our business and financial condition and could cause significant reputational harm to us, which could seriously harm our business. For example, the Cybersecurity Incident has resulted in litigation, settlements, government investigations and other regulatory enforcement inquiries.

In addition, financial institutions, such as ourselves, face significant regulatory scrutiny, which can lead to public enforcement actions or nonpublic supervisory actions. We and our subsidiaries are subject to comprehensive regulation and periodic examination by, among other regulatory bodies, the Federal Banking Agencies, SEC, CFTC and CFPB. We have been subject to enforcement actions by many of these and other regulators and may continue to be involved in such actions, including governmental inquiries, investigations and enforcement proceedings, including by the OCC, Department of Justice, Financial Crimes Enforcement Network (“FinCEN”) and state Attorneys General.

Over the last several years, federal and state regulators have focused on compliance with AML and sanctions laws, privacy, data protection and data security, use of service providers, fair lending and other consumer protection issues. In August 2020, we entered into consent orders with the Federal Reserve and the OCC resulting from regulatory reviews of the Cybersecurity Incident and relating to ongoing enhancements of our cybersecurity and operational risk management processes, and we paid a civil monetary penalty as part of the OCC agreement. On August 31, 2022, the OCC terminated its consent order. In January 2021, we also paid a civil monetary penalty assessed by FinCEN against the Bank in connection with AML violations alleged to have occurred between 2008 and 2014. Regulatory scrutiny is expected to continue in these areas, including as a result of implementation of the AML Act of 2020.

We expect that regulators and governmental enforcement bodies will continue taking public enforcement actions against financial institutions in addition to addressing supervisory concerns through nonpublic supervisory actions or findings, which could involve restrictions on our activities, or our ability to make acquisitions or otherwise expand our business, among other limitations that could adversely affect our business. In addition, a violation of law or regulation by another financial institution is likely to give rise to an investigation by regulators and other governmental agencies of the same or similar practices by us. Furthermore, a single event may give rise to numerous and overlapping investigations and proceedings. These and other initiatives from governmental authorities and officials may subject us to further judgments, settlements, fines or penalties, or cause us to restructure our operations and activities or to cease offering certain products or services, all of which could harm our reputation or lead to higher operational costs. Litigation, government investigations and other regulatory actions could generally subject us to significant fines, increased expenses, restrictions on our activities and damage to our reputation and our brand, and could adversely affect our business, financial condition and results of operations. For additional information regarding legal and regulatory proceedings to which we are subject, see “Part II—Item 8. Financial Statements and Supplementary Data—Note 18—Commitments, Contingencies, Guarantees and Others.”

Other Business Risks

We face intense competition in all of our markets.

We operate in a highly competitive environment across all of our lines of business, whether in making loans, attracting deposits or in the global payments industry, and we expect competitive conditions to continue to intensify with respect to most of our products particularly in our credit card and consumer banking business. We compete on the basis of the rates we pay on deposits and the rates and other terms we charge on the loans we originate or purchase, as well as the quality and range of our

customer service, products, innovation and experience. This increasingly competitive environment is primarily a result of changes in technology, product delivery systems and regulation, as well as the emergence of new or significantly larger financial services providers, all of which may affect our customers' expectations and demands. In addition to offering competitive products and services, we invest in and conduct marketing campaigns to attract and inform customers. If our marketing campaigns are unsuccessful, it may adversely impact our ability to attract new customers and grow market share.

Some of our competitors, including new and emerging competitors in the digital and mobile payments space and other financial technology providers, are not subject to the same regulatory requirements or scrutiny to which we are subject, which also could place us at a competitive disadvantage, in particular in the development of new technology platforms or the ability to rapidly innovate. We compete with many forms of payments offered by both bank and non-bank providers, including a variety of new and evolving alternative payment mechanisms, systems and products, such as aggregators and web-based and wireless payment platforms or technologies, digital or cryptocurrencies, prepaid systems and payment services targeting users of social networks, communications platforms and online gaming. If we are unable to continue to keep pace with innovation, do not effectively market our products and services or are prohibited from or unwilling to enter emerging areas of competition, our business and results of operations could be adversely affected.

Some of our competitors are substantially larger than we are, which may give those competitors advantages, including a more diversified product and customer base, the ability to reach more customers and potential customers, operational efficiencies, broad-based local distribution capabilities, lower-cost funding and larger existing branch networks. Many of our competitors are also focusing on cross-selling their products and developing new products or technologies, which could affect our ability to maintain or grow existing customer relationships or require us to offer lower interest rates or fees on our lending products or higher interest rates on deposits. Competition for loans could result in origination of fewer loans, earning less on our loans or an increase in loans that perform below expectations.

We operate as an online direct bank in the United States. While direct banking provides a significant opportunity to attract new customers that value greater and more flexible access to banking services at reduced costs, we face strong and increasing competition in the direct banking market. Aggressive pricing throughout the industry may adversely affect the retention of existing balances and the cost-efficient acquisition of new deposit funds and may affect our growth and profitability. Customers could also close their online accounts or reduce balances or deposits in favor of products and services offered by competitors for other reasons. These shifts, which could be rapid, could result from general dissatisfaction with our products or services, including concerns over pricing, online security or our reputation. The potential consequences of this competitive environment are exacerbated by the flexibility of direct banking and the financial and technological sophistication of our online customer base.

In our credit card business, competition for rewards customers may result in higher rewards expenses, or we may fail to attract new customers or retain existing rewards customers due to increasing competition for these consumers. As of December 31, 2022, we have a number of large partnerships in our credit card loan portfolio. The market for key business partners, especially in the credit card business, is very competitive, and we may not be able to grow or maintain these partner relationships or assure that these relationships will be profitable or valued by our customers. Additionally, partners themselves may face changes in their business, including market factors and ownership changes, that could impact the partnership. We face the risk that we could lose partner relationships, even after we have invested significant resources into acquiring and developing the relationships. The loss of key business partners could have a negative impact on our results of operations, including lower returns, excess operating expense and excess funding capacity.

We depend on our partners to effectively promote our co-brand and private label products and integrate the use of our credit cards into their retail operations. The failure by our partners to effectively promote and support our products as well as changes they may make in their business models could adversely affect card usage and our ability to achieve the growth and profitability objectives of our partnerships. In addition, if our partners do not adhere to the terms of our program agreements and standards, or otherwise diminish the value of our brand, we may suffer reputational damage and customers may be less likely to use our products.

Some of our competitors have developed, or may develop, substantially greater financial and other resources than we have, may offer richer value propositions or a wider range of programs and services than we offer, or may use more effective advertising, marketing or cross-selling strategies to acquire and retain more customers, capture a greater share of spending and borrowings, attain and develop more attractive co-brand card programs and maintain greater merchant acceptance than we have. We may not be able to compete effectively against these threats or respond or adapt to changes in consumer spending habits as effectively as our competitors.

In such a competitive environment, we may lose entire accounts or may lose account balances to competing firms, or we may find it more costly to maintain our existing customer base. Customer attrition from any or all of our lending products, together with any lowering of interest rates or fees that we might implement to retain customers, could reduce our revenues and therefore our earnings. Similarly, unexpected customer attrition from our deposit products, in addition to an increase in rates or services that we may offer to retain deposits, may increase our expenses and therefore reduce our earnings.

Our business, financial condition and results of operations may be adversely affected by merchants' increasing focus on the fees charged by credit and debit card networks and by legislation and regulation impacting such fees.

Interchange fees are generally one of the largest components of the costs that merchants pay in connection with the acceptance of credit and debit cards and are a meaningful source of revenue for our credit and debit card businesses. Interchange fees are the subject of significant and intense global legal, legislative and regulatory focus, and the resulting decisions, legislation and regulation may have a material adverse impact on our overall business, financial condition and results of operations.

Legislative and regulatory bodies in a number of countries are seeking to reduce interchange fees through legislation, competition-related regulatory proceedings, voluntary agreements, central bank regulation and/or litigation. For credit transactions, interchange reimbursement rates in the United States are set by credit card networks such as MasterCard and Visa. For debit transactions, Federal Reserve rules place limits on the interchange fees we may charge. For more information on these rules, please see "Part I—Item 1. Business—Supervision and Regulation." In some jurisdictions, such as Canada and certain countries in Europe, including the U.K., interchange fees and related practices are subject to regulatory activity, including in some cases, imposing caps on permissible interchange fees. Our international card businesses have been impacted by these restrictions. For example, in the U.K., interchange fees are capped for both credit and debit card transactions. In addition, in Canada, Visa and Mastercard payment networks have entered into voluntary agreements with the Department of Finance Canada to maintain an agreed upon average interchange rate. Lowering interchange fees remains an area of domestic and international governmental focus. Legislators and regulators around the world are aware of each other's approaches to the regulation of the payments industry. Consequently, a development in one country, state or region may influence regulatory approaches in another, such as our primary market, the United States.

In addition to this regulatory activity, merchants are also seeking avenues to reduce interchange fees. In the past, merchants and their trade groups have filed numerous lawsuits against Visa, MasterCard, American Express and their card-issuing banks, claiming that their practices toward merchants, including interchange and similar fees, violate federal antitrust laws. In 2005, a number of entities filed antitrust lawsuits against MasterCard and Visa and several member banks, including our subsidiaries and us, alleging among other things, that the defendants conspired to fix the level of interchange fees. In December 2013, the U.S. District Court for the Eastern District of New York granted final approval of the proposed class settlement. The settlement provided, among other things, that merchants would be entitled to join together to negotiate lower interchange fees. The settlement was appealed to the Second Circuit Court of Appeals, which rejected the settlement in June 2016; a revised settlement was reached in the second half of 2018, and the trial court issued its final approval of the settlement in December 2019. See "Part II—Item 8. Financial Statements and Supplementary Data—Note 18—Commitments, Contingencies, Guarantees and Others" for further details.

Some major retailers have sufficient bargaining power to independently negotiate lower interchange fees with MasterCard and Visa, which could, in turn, result in lower interchange fees for us when our cardholders undertake purchase transactions with these retailers. Merchants also continue to lobby Congress aggressively for restrictions on interchange fees and their efforts may be successful. Retailers may in the future bring legal proceedings against us or other credit card and debit card issuers and networks.

Beyond pursuing litigation, legislation and regulation, merchants may also promote forms of payment with lower fees, such as ACH-based payments, or seek to impose surcharges at the point of sale for use of credit or debit cards. New payment systems, particularly mobile-based payment technologies, could also gain widespread adoption and lead to issuer transaction fees or the displacement of credit card accounts as a payment method.

The heightened focus by merchants and legislative and regulatory bodies on the fees charged by credit and debit card networks, and the ability of certain merchants to successfully negotiate discounts to interchange fees with MasterCard and Visa or develop alternative payment systems, could result in a reduction of interchange fees. Any resulting loss in income to us could have a material adverse effect on our business, financial condition and results of operations.

If we are not able to invest successfully in and introduce digital and other technological developments across all our businesses, our financial performance may suffer.

Our industry is subject to rapid and significant technological changes and our ability to meet our customers' needs and expectations is key to our ability to grow revenue and earnings. We expect digital technologies to continue to have a significant impact on banking over time. Consumers expect robust digital experiences from their financial services providers. The ability for customers to access their accounts and conduct financial transactions using digital technology, including mobile applications, is an important aspect of the financial services industry and financial institutions are rapidly introducing new digital and other technology-driven products and services that aim to offer a better customer experience and to reduce costs. We continue to invest in digital technology designed to attract new customers, facilitate the ability of existing customers to conduct financial transactions and enhance the customer experience related to our products and services.

Our continued success depends, in part, upon our ability to assess and address the needs of our customers by using digital technology to provide products and services that meet their expectations. The development and launch of new digital products and services depends in large part on our ability to invest in and build the technology platforms that can enable them, in a cost effective and timely manner. See "*We face intense competition in all of our markets*" and "*We face risks related to our operational, technological and organizational infrastructure*."

Some of our competitors are substantially larger than we are, which may allow those competitors to invest more money into their technology infrastructure and digital innovation than we do. In addition, smaller competitors may experience lower cost structures and different regulatory requirements and scrutiny than we do, which may allow them to innovate more rapidly than we can. See "*We face intense competition in all of our markets*." Further, our success depends on our ability to attract and retain strong digital and technology leaders, engineers and other specialized personnel. The competition is intense and the compensation costs continue to increase for such talent. If we are unable to attract and retain digital and technology talent, our ability to offer digital products and services and build the necessary technology infrastructure could be negatively affected, which could negatively impact our business and financial results. A failure to maintain or enhance our competitive position with respect to digital products and services, whether because we fail to anticipate customer expectations or because our technological developments fail to perform as desired or are not implemented in a timely or successful manner, could negatively impact our business and financial results.

We may fail to realize the anticipated benefits of our mergers, acquisitions and strategic partnerships.

We engage in merger and acquisition activity and enter into strategic partnerships from time to time. We continue to evaluate and anticipate engaging in, among other merger and acquisition activity, additional strategic partnerships and selected acquisitions of financial institutions and other businesses or assets, including credit card and other loan portfolios. We may not be able to identify and secure future acquisition targets on terms and conditions that are acceptable to us, or successfully complete and integrate the businesses within the anticipated time frame and achieve the anticipated benefits of proposed mergers, acquisitions and strategic partnerships, which could impair our growth.

Any merger, acquisition or strategic partnership we undertake entails certain risks, which may materially and adversely affect our results of operations. If we experience greater than anticipated costs to integrate acquired businesses into our existing operations, or are not able to achieve the anticipated benefits of any merger, acquisition or strategic partnership, including cost savings and other synergies, our business could be negatively affected. In addition, it is possible that the ongoing integration processes could result in the loss of key employees, errors or delays in systems implementation, exposure to cybersecurity risks associated with acquired businesses, exposure to additional regulatory oversight, the disruption of our ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect our ability to maintain relationships with partners, clients, customers, depositors and employees or to achieve the anticipated benefits of any merger, acquisition or strategic partnership. Integration efforts also may divert management attention and resources. These integration matters may have an adverse effect on us during any transition period.

In addition, we may face the following risks in connection with any merger, acquisition or strategic partnership:

- *New Businesses and Geographic or Other Markets:* Our merger, acquisition or strategic partnership activity may involve our entry into new businesses, or new geographic areas or markets which present risks resulting from our relative inexperience in these new businesses or markets. These new businesses or markets may change the overall character of our consolidated portfolio of businesses and alter our exposure to economic and other external factors. We face the risk that we will not be successful in these new businesses or in these new markets.

- *Identification and Assessment of Merger and Acquisition Targets and Deployment of Acquired Assets:* We may not be able to identify, acquire or partner with suitable targets. Further, our ability to achieve the anticipated benefits of any merger, acquisition or strategic partnership will depend on our ability to assess the asset quality, risks and value of the particular assets or institutions we partner with, merge with or acquire. We may be unable to profitably deploy any assets we acquire.
- *Accuracy of Assumptions:* In connection with any merger, acquisition or strategic partnership, we may make certain assumptions relating to the proposed merger, acquisition or strategic partnership that may be, or may prove to be, inaccurate, including as a result of the failure to anticipate the costs, timeline or ability to realize the expected benefits of any merger, acquisition or strategic partnership. The inaccuracy of any assumptions we may make could result in unanticipated consequences that could have a material adverse effect on our results of operations or financial condition.
- *Target-specific Risk:* Assets and companies that we acquire, or companies that we enter into strategic partnerships with, will have their own risks that are specific to a particular asset or company. These risks include, but are not limited to, particular or specific regulatory, accounting, operational, reputational and industry risks, any of which could have a material adverse effect on our results of operations or financial condition. For example, we may face challenges associated with integrating other companies due to differences in corporate culture, compliance systems or standards of conduct. Indemnification rights, if any, may be insufficient to compensate us for any losses or damages resulting from such risks. In addition to regulatory approvals discussed below, certain of our merger, acquisition or partnership activity may require third-party consents in order for us to fully realize the anticipated benefits of any such transaction.
- *Conditions to Regulatory Approval:* We may be required to obtain various governmental and regulatory approvals to consummate certain acquisitions. We cannot be certain whether, when or on what terms and conditions, such approvals may be granted. Consequently, we may not obtain governmental or regulatory approval for a proposed acquisition on acceptable terms or at all, in which case we would not be able to complete the acquisition despite investing resources in pursuing it.

Reputational risk and social factors may impact our results and damage our brand.

Our ability to attract and retain customers is highly dependent upon the perceptions of consumer and commercial borrowers and deposit holders and other external perceptions of our products, services, trustworthiness, business practices, workplace culture, compliance practices or our financial health. In addition, our brand is very important to us. Maintaining and enhancing our brand depends largely on our ability to continue to provide high-quality products and services. Adverse perceptions regarding our reputation in the consumer, commercial and funding markets could lead to difficulties in generating and maintaining accounts as well as in financing them. In particular, negative public perceptions regarding our reputation, including negative perceptions regarding our ability to maintain the security of our technology systems and protect customer data, could lead to decreases in the levels of deposits that consumer and commercial customers and potential customers choose to maintain with us or significantly increase the costs of attracting and retaining customers. In addition, negative perceptions regarding certain industries, partners or clients could also prompt us to cease business activities associated with those entities.

Negative public opinion or damage to our brand could also result from actual or alleged conduct in any number of activities or circumstances, including lending practices, regulatory compliance, security breaches (including the use and protection of customer data, such as resulting from the Cybersecurity Incident), corporate governance and sales and marketing, and from actions taken by regulators or other persons in response to such conduct. Such conduct could fall short of our customers' and the public's heightened expectations of companies of our size with rigorous privacy, data protection, data security and compliance practices, and could further harm our reputation. In addition, our co-brand and private label partners or other third parties with whom we have important relationships may take actions over which we have limited control that could negatively impact perceptions about us or the financial services industry. The proliferation of social media may increase the likelihood that negative public opinion from any of the events discussed above will impact our reputation and business.

In addition, a variety of social factors may cause changes in borrowing activity, including credit card use, payment patterns and the rate of defaults by account holders and borrowers domestically and internationally. These social factors include changes in consumer confidence levels, the public's perception regarding the banking industry and consumer debt, including credit card use, and changing attitudes about the stigma of bankruptcy. There has also been increased focus by investor advocacy groups, investment funds and shareholder activists, among others, on topics related to environmental, social and corporate governance

policies, and our policies, practices and disclosure in these areas, including related to climate change. If these groups consider our efforts unsatisfactory, whether real or perceived, it could also harm our reputation. If consumers develop or maintain negative attitudes about incurring debt, or consumption trends decline or if we fail to maintain and enhance our brand, or we incur significant expenses to do so, our reputation and business and financial results could be materially and negatively affected.

If we are not able to protect our intellectual property, our revenue and profitability could be negatively affected.

We rely on a variety of measures to protect and enhance our intellectual property, including copyrights, trademarks, trade secrets, patents and certain restrictions on disclosure, solicitation and competition. We also undertake other measures to control access to and distribution of our other proprietary and confidential information. These measures may not prevent misappropriation of our proprietary or confidential information or infringement, misappropriation or other violations of our intellectual property rights and a resulting loss of competitive advantage. In addition, our competitors or other third parties may obtain patents for innovations that are used in our industry or allege that our systems, processes or technologies infringe, misappropriate or violate their intellectual property rights. Given the complex, rapidly changing and competitive technological and business environments in which we operate, if our competitors or other third parties are successful in obtaining such patents or prevail in intellectual property-related litigation against us, we could lose significant revenues, incur significant license, royalty, technology development or other expenses, or pay significant damages.

Our risk management strategies may not be fully effective in mitigating our risk exposures in all market environments or against all types of risk.

Management of market, credit, liquidity, strategic, reputational, operational and compliance risk requires, among other things, policies and procedures to properly record and verify a large number of transactions and events. See “Part II—Item 7. MD&A—Risk Management” for further details. We maintain an enterprise Framework that is designed to identify, measure, assess, monitor, test, control, report, escalate, and mitigate the risks that we face. Even though we continue to devote significant resources to developing our Framework, our risk management strategies may not be fully effective in identifying and mitigating our risk exposure in all market environments or against all types of risk, including risks that are unidentified or unanticipated.

Some of our methods of managing these risks are based upon our use of observed historical market behavior, the use of analytical and/or forecasting models and management’s judgment. These methods may not accurately predict future exposures, which could be significantly greater than the historical measures or models indicate and market conditions, particularly during a period of financial market stress, can involve unprecedented dislocations. For example, credit risk is inherent in the financial services business and results from, among other things, extending credit to customers. Our ability to assess the creditworthiness of our customers may be impaired if the models and approaches we use to select, manage and underwrite our consumer and commercial customers become less predictive of future charge-offs due, for example, to rapid changes in the economy, or degradation in the predictive nature of credit bureau and other data used in underwriting.

While we employ a broad and diversified set of risk monitoring and risk mitigation techniques, those techniques and the judgments that accompany their application cannot anticipate every economic and financial outcome or the timing of such outcomes. For example, our ability to implement our risk management strategies may be hindered by adverse changes in the volatility or liquidity conditions in certain markets and as a result, may limit our ability to distribute such risks (for instance, when we seek to syndicate exposure in bridge financing transactions we have underwritten). We may, therefore, incur losses in the course of our risk management or investing activities.

The transition away from LIBOR may adversely affect our business.

A transition away from the use of LIBOR to alternative rates and other potential interest rate benchmark reforms is not yet complete. These reforms have caused and may in the future cause such rates to perform differently than in the past, or to disappear entirely, or have other consequences which cannot be predicted.

Given LIBOR’s extensive use across financial markets, the ongoing transition away from LIBOR presents several risks and challenges to the financial markets and financial institutions, including Capital One. While we have substantially decreased our exposure to LIBOR, we have certain loans, derivative contracts, securitizations, and other contracts with attributes that are either directly or indirectly dependent on LIBOR. Our ability to transition those exposures away from LIBOR could be affected by market and customer acceptance of and the specific terms and parameters for alternative reference rates. The Secured Overnight Financing Rate (“SOFR”) has been recommended by the Alternative Reference Rates Committee (“ARRC”) as an alternative to U.S. dollar LIBOR. Nevertheless, the transition away from LIBOR could result in loss of market share in certain

products, adverse tax or accounting impacts, compliance, legal or operational costs and risks associated with client disclosures, as well as systems disruption, model disruption and other business continuity issues for us.

In addition, risks will remain for us with respect to outstanding instruments which rely on LIBOR. Those risks arise in connection with transitioning such instruments to a new reference rate, the taking of discretionary actions (for example, under fallback provisions) or the negotiation of fallback provisions and final amendments to existing LIBOR based agreements. Payments under contracts referencing new reference rates may significantly differ from those referencing LIBOR. The Adjustable Interest Rate (LIBOR) Act passed by Congress in March 2022 (“LIBOR Act”) is intended to minimize legal and economic uncertainty following U.S. dollar LIBOR’s cessation by replacing LIBOR references in certain contracts under certain circumstances with a SOFR-based rate identified in a Federal Reserve rule that incorporates a spread adjustment specified in the statute. For some instruments, the method of transitioning to a new reference rate may be challenging, especially if parties to an instrument cannot agree as to how to effect that transition and the LIBOR Act does not apply. In addition, prior to LIBOR cessation, instruments that continue to refer to LIBOR may be impacted if there is a change in the availability or calculation of LIBOR. The transition from LIBOR to an alternative reference rate has changed our market risk profile and required changes to risk and pricing models, valuation tools, product design, information technology systems, reporting infrastructure, operational processes and controls, and hedging strategies, and may result in or require further such changes in the future. In many cases, we are and may in the future be dependent on third parties to upgrade systems, software and other critical functions that could materially disrupt our readiness if they are not done on a timely basis or otherwise fail. While we have largely remediated the majority of our exposures, our effort to remediate the remaining exposures remains ongoing. Failure to adequately manage the transition could have a material adverse effect on our reputation, business, financial condition and results of operations. See “Part II—Item 7. MD&A—Market Risk Profile” for additional information.

Our business could be negatively affected if we are unable to attract, retain and motivate key senior leaders and skilled employees.

Our success depends, in large part, on our ability to retain key senior leaders and to attract and retain skilled employees, particularly employees with advanced expertise in credit, risk, digital and technology skills. We depend on our senior leaders and skilled employees to oversee simultaneous, transformative initiatives across the enterprise and execute on our business plans in an efficient and effective manner. Competition for such senior leaders and employees, and the costs associated with attracting and retaining them, is high and competitive. While we engage in robust succession planning, our key senior leaders have deep and broad industry experience and could be difficult to replace without some degree of disruption.

Our ability to attract and retain qualified employees also is affected by perceptions of our culture and management, including our position on remote and hybrid work arrangements, our profile in the regions where we have offices and the professional opportunities we offer. Regulation or regulatory guidance restricting executive compensation, as well as evolving investor expectations, may limit the types of compensation arrangements that we may enter into with our most senior leaders and could have a negative impact on our ability to attract, retain and motivate such leaders in support of our long-term strategy. These laws and regulations may not apply in the same manner to all financial institutions and technology companies, which therefore may subject us to more restrictions than other institutions and companies with which we compete for talent and may also hinder our ability to compete for talent with other industries. We rely upon our senior leaders not only for business success, but also to lead with integrity. To the extent our senior leaders behave in a manner that does not comport with our values, the consequences to our brand and reputation could be severe and could adversely affect our financial condition and results of operations. If we are unable to attract, develop and retain talented senior leadership and employees, or to implement appropriate succession plans for our senior leadership, our business could be negatively affected.

We face risks from catastrophic events.

Despite the business contingency plans we have in place, such plans do not fully mitigate all potential business continuity risks to us. Geopolitical events, natural disasters and other catastrophic events could harm our employees, business and infrastructure, including our information technology systems and third-party platforms. Our ability to conduct business may be adversely affected by a disruption in the infrastructure that supports our business and the communities where we are located, which are concentrated in the Northern Virginia and New York metropolitan areas, as well as Richmond, Virginia and Plano, Texas. This may include a disruption involving damage or loss of access to a physical site, cyber-attacks and other security incidents, terrorist activities, the occurrence or worsening of disease outbreaks or pandemics (including the COVID-19 pandemic), natural disasters, extreme weather events, electrical outage, environmental hazards, disruption to technological infrastructure, communications or other services we use, our employees or third parties with whom we conduct business. Our business, financial condition and results of operations may be impacted by any such disruption and our ability to implement corresponding response measures quickly. In addition, if a natural disaster or other catastrophic event occurs in certain regions

where our business and customers are concentrated, such as the mid-Atlantic, New York, California or Texas metropolitan areas, or in regions where our third-party platforms are located, we could be disproportionately impacted as compared to our competitors. The impact of such events and other catastrophes on the overall economy and our physical and transition risks may also adversely affect our financial condition and results of operations.

Climate change manifesting as physical or transition risks could adversely affect our businesses, operations and customers.

Climate change risks can manifest as physical or transition risks.

Physical risks are the risks from the effects of climate change arising from acute, climate-related events, such as, hurricanes and wildfires, and chronic shifts in climate, such as sea level rise and higher average temperatures. Such events could lead to financial losses or disrupt our operations or those of our customers or third parties on which we rely, including through direct damage to assets and indirect impacts from supply chain disruption and market volatility.

Transition risks are the risks resulting from the shift toward a lower-carbon economy arising from the changes in policy, consumer and business sentiment or technologies in regards to limiting climate change. Transition risks, including changes in consumer preferences and additional regulatory requirements or taxes, could increase our expenses, affect credit performance, and impact our strategies or those of our customers. For more information on climate-related regulatory developments, see “Part I—Item 1. Business—Supervision and Regulation” for additional information.

Physical and transition risks could also affect the financial health of certain customers in impacted industries or geographies. In addition, we face reputational risk as a result of our policies, practices, disclosures and decisions related to climate change and the environment, or the practices or involvement of our clients or vendors and suppliers, in certain industries or projects associated with causing or exacerbating climate change.

As climate risk is interconnected with many risk types, we continue to enhance processes to embed evolving climate risk considerations into our existing risk management strategies; however, because the timing and severity of climate change may not be predictable, our risk management strategies may not be effective in mitigating climate risk exposure.

We face risks from the use of or changes to assumptions or estimates in our financial statements.

Pursuant to generally accepted accounting principles in the U.S. (“U.S. GAAP”), we are required to use certain assumptions and estimates in preparing our financial statements, including determining our allowance for credit losses, the fair value of certain assets and liabilities, and goodwill impairment, among other items. In addition, the FASB, the SEC and other regulatory bodies may change the financial accounting and reporting standards, including those related to assumptions and estimates we use to prepare our financial statements, in ways that we cannot predict and that could impact our financial statements. If actual results differ from the assumptions or estimates underlying our financial statements or if financial accounting and reporting standards are changed, we may experience unexpected material losses. For a discussion of our use of estimates in the preparation of our consolidated financial statements, see “Part II—Item 7. MD&A—Critical Accounting Policies and Estimates” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies.”

The soundness of other financial institutions and other third parties could adversely affect us.

Our ability to engage in routine funding and other transactions could be adversely affected by the stability and actions of other financial services institutions. Financial services institutions are interrelated as a result of trading, clearing, servicing, counterparty and other relationships. We have exposure to financial institutions, intermediaries and counterparties that are exposed to risks over which we have little or no control.

In addition, we routinely execute transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds and other institutional clients, resulting in a significant credit concentration with respect to the financial services industry overall. As a result, defaults by, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, have led to market-wide liquidity problems and could lead to losses or defaults by us or by other institutions.

Likewise, adverse developments affecting the overall strength and soundness of our competitors, the financial services industry as a whole and the general economic climate and the U.S. Treasury market could have a negative impact on perceptions about the strength and soundness of our business even if we are not subject to the same adverse developments. In addition, adverse

developments with respect to third parties with whom we have important relationships also could negatively impact perceptions about us. These perceptions about us could cause our business to be negatively affected and exacerbate the other risks that we face.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate and banking real estate portfolio consists of approximately 11.9 million square feet of owned or leased office and retail space, which is used to support our business. Of this overall portfolio, approximately 9.9 million square feet of space is dedicated for various corporate office uses and approximately 2.0 million square feet of space is for bank branches and cafés.

Our 9.9 million square feet of corporate office space consists of approximately 6.0 million square feet of owned space and 3.9 million square feet of leased space. We maintain corporate office space primarily in Virginia, Texas and New York, including our headquarters located in McLean, Virginia.

Our 2.0 million square feet for bank branches and cafés is located primarily across New York, Louisiana, Texas, Maryland, and Virginia and consists of approximately 1.3 million square feet of leased space and 0.7 million square feet of owned space. See “Part II—Item 8. Financial Statements and Supplementary Data—Note 7—Premises, Equipment and Leases” for information about our premises.

Item 3. Legal Proceedings

The information required by Item 103 of Regulation S-K is included in “Part II—Item 8. Financial Statements and Supplementary Data —Note 18—Commitments, Contingencies, Guarantees and Others.”

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

Market Information

Our common stock is listed on the NYSE and is traded under the symbol “COF.” As of January 31, 2023, there were 8,963 holders of record of our common stock.

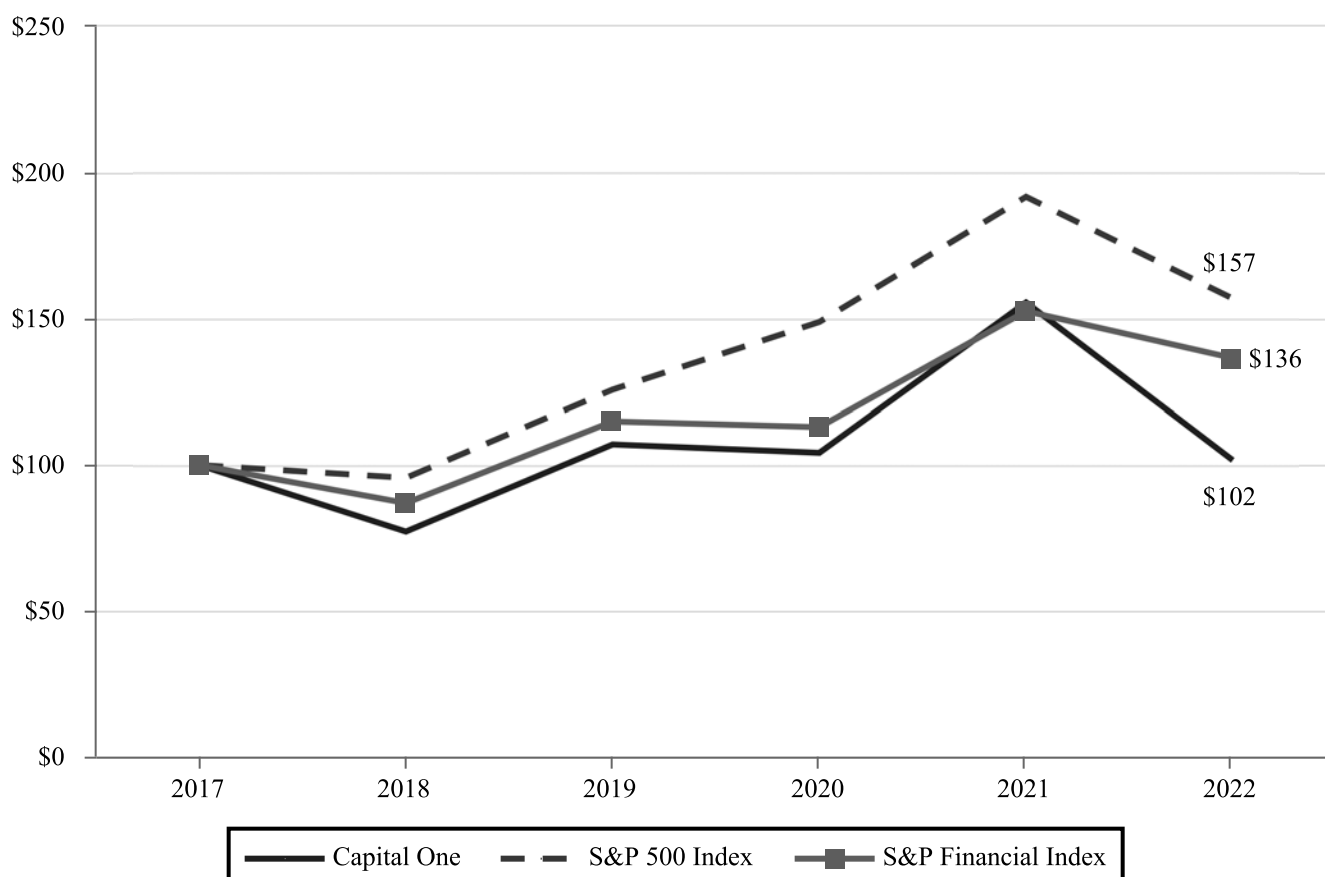
Securities Authorized for Issuance Under Equity Compensation Plans

Information relating to compensation plans under which our equity securities are authorized for issuance is presented in this Report under “Part III—Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.”

Common Stock Performance Graph

The following graph shows the cumulative total stockholder return on our common stock compared to an overall stock market index, the S&P Composite 500 Stock Index (“S&P 500 Index”), and a published industry index, the S&P Financial Composite Index (“S&P Financial Index”), over the five-year period commencing December 31, 2017 and ended December 31, 2022. The stock performance graph assumes that \$100 was invested in our common stock and each index and that all dividends were reinvested. The stock price performance on the graph below is not necessarily indicative of future performance.

Comparison of 5-Year Cumulative Total Return (Capital One, S&P 500 Index and S&P Financial Index)



	December 31,					
	2017	2018	2019	2020	2021	2022
Capital One	\$ 100.00	\$ 77.22	\$ 107.05	\$ 104.19	\$ 155.53	\$ 101.65
S&P 500 Index	100.00	95.62	125.72	148.85	191.58	156.88
S&P Financial Index	100.00	86.97	114.91	112.96	152.54	136.48

Recent Sales of Unregistered Securities

We did not have any sales of unregistered equity securities in 2022.

Issuer Purchases of Equity Securities

The following table presents information related to repurchases of shares of our common stock for each calendar month in the fourth quarter of 2022. Commission costs are excluded from the amounts presented below.

	Total Number of Shares Purchased ⁽¹⁾	Average Price per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans ⁽¹⁾	Maximum Amount That May Yet be Purchased Under the Plan or Program ⁽¹⁾ <i>(in millions)</i>
October	509,142	\$ 98.20	509,142	\$ 5,286
November	502,840	105.07	442,263	5,240
December	567,076	94.50	567,076	5,186
Total	<u>1,579,058</u>	99.06	<u>1,518,481</u>	

⁽¹⁾ In January 2022, our Board of Directors authorized the repurchase of up to \$5.0 billion of shares of our common stock. In April 2022, our Board of Directors authorized the repurchase of up to an additional \$5.0 billion of shares of our common stock. There were 60,577 shares withheld in November to cover taxes on restricted stock awards whose restrictions have lapsed. See “Part II—Item 7. MD&A—Capital Management—Dividend Policy and Stock Purchases” for more information.

Item 6. [Reserved]

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”)

This discussion contains forward-looking statements that are based upon management’s current expectations and are subject to significant uncertainties and changes in circumstances. Please review “Part I—Item 1. Business—Forward-Looking Statements” for more information on the forward-looking statements in this Report. All statements that address operating performance, events or developments that we expect or anticipate will occur in the future are forward-looking statements. Our actual results may differ materially from those included in these forward-looking statements due to a variety of factors including, but not limited to, those described in “Part I—Item 1A. Risk Factors” in this Report. Unless otherwise specified, references to notes to our consolidated financial statements refer to the notes to our consolidated financial statements as of December 31, 2022 included in this Report.

Management monitors a variety of key indicators to evaluate our business results and financial condition. The following MD&A is intended to provide the reader with an understanding of our results of operations and financial condition, including capital and liquidity management, by focusing on changes from year to year in certain key measures used by management to evaluate performance, such as profitability, growth and credit quality metrics. MD&A is provided as a supplement to, and should be read in conjunction with, our audited consolidated financial statements as of and for the year ended December 31, 2022 and accompanying notes. MD&A is organized in the following sections:

- Executive Summary
- Consolidated Results of Operations
- Consolidated Balance Sheets Analysis
- Off-Balance Sheet Arrangements
- Business Segment Financial Performance
- Critical Accounting Policies and Estimates
- Accounting Changes and Developments
- Capital Management
- Risk Management
- Credit Risk Profile
- Liquidity Risk Profile
- Market Risk Profile
- Supplemental Tables
- Glossary and Acronyms

Selected Financial Data

The following table presents selected consolidated financial data and performance metrics for the three-year period ended December 31, 2022, 2021 and 2020. We also provide selected key metrics we use in evaluating our performance, including certain metrics that are computed using non-GAAP measures. We consider these metrics to be key financial measures that management uses in assessing our operating performance, capital adequacy and the level of returns generated. We believe these non-GAAP metrics provide useful insight to investors and users of our financial information as they provide an alternate measurement of our performance and assist in assessing our capital adequacy and the level of return generated. These non-GAAP measures should not be viewed as a substitute for reported results determined in accordance with GAAP, nor are they necessarily comparable to non-GAAP measures that may be presented by other companies.

Three-Year Summary of Selected Financial Data

<i>(Dollars in millions, except per share data and as noted)</i>	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Income statement					
Interest income	\$ 31,237	\$ 25,769	\$ 26,033	21%	(1)%
Interest expense	4,123	1,598	3,120	158	(49)
Net interest income	\$ 27,114	\$ 24,171	\$ 22,913	12	5
Non-interest income	7,136	6,264	5,610	14	12
Total net revenue	34,250	30,435	28,523	13	7
Provision (benefit) for credit losses	5,847	(1,944)	10,264	**	**
Non-interest expense:					
Marketing	4,017	2,871	1,610	40	78
Operating expense	15,146	13,699	13,446	11	2
Total non-interest expense	19,163	16,570	15,056	16	10
Income from continuing operations before income taxes	9,240	15,809	3,203	(42)	**
Income tax provision	1,880	3,415	486	(45)	**
Income from continuing operations, net of tax	7,360	12,394	2,717	(41)	**
Income (loss) from discontinued operations, net of tax	—	(4)	(3)	**	33
Net income	7,360	12,390	2,714	(41)	**
Dividends and undistributed earnings allocated to participating securities	(88)	(105)	(20)	(16)	**
Preferred stock dividends	(228)	(274)	(280)	(17)	(2)
Issuance cost for redeemed preferred stock	—	(46)	(39)	**	18
Net income available to common stockholders	\$ 7,044	\$ 11,965	\$ 2,375	(41)	**
Common share statistics					
Basic earnings per common share:					
Net income from continuing operations	\$ 17.98	\$ 27.05	\$ 5.20	(34)%	**
Income (loss) from discontinued operations	—	(0.01)	(0.01)	**	—
Net income per basic common share	\$ 17.98	\$ 27.04	\$ 5.19	(34)	**
Diluted earnings per common share:					
Net income from continuing operations	\$ 17.91	\$ 26.95	\$ 5.19	(34)%	**
Income (loss) from discontinued operations	—	(0.01)	(0.01)	**	—
Net income per diluted common share	\$ 17.91	\$ 26.94	\$ 5.18	(34)	**
Common shares outstanding (period-end, in millions)	381.3	413.9	459.0	(8)	(10)%
Dividends declared and paid per common share	\$ 2.40	\$ 2.60	\$ 1.00	(8)	160
Book value per common share (period-end)	137.90	147.46	131.16	(6)	12
Tangible book value per common share (period-end) ⁽¹⁾	86.11	99.74	88.34	(14)	13
Common dividend payout ratio ⁽²⁾	13.35%	9.62%	19.27 %	4	(10)
Stock price per common share (period-end)	\$ 92.96	\$ 145.09	\$ 98.85	(36)	47
Total market capitalization (period-end)	35,447	60,047	45,372	(41)	32

<i>(Dollars in millions, except per share data and as noted)</i>	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Balance sheet (average balances)					
Loans held for investment	\$ 292,238	\$ 252,730	\$ 253,335	16%	—
Interest-earning assets	406,646	389,336	378,362	4	3%
Total assets	440,538	424,521	411,187	4	3
Interest-bearing deposits	277,208	271,500	263,279	2	3
Total deposits	313,551	306,397	290,835	2	5
Borrowings	51,006	38,590	46,588	32	(17)
Common equity	50,279	56,966	52,954	(12)	8
Total stockholders' equity	55,125	62,556	58,201	(12)	7
Selected performance metrics					
Purchase volume	\$ 587,283	\$ 527,605	\$ 414,312	11%	27%
Total net revenue margin ⁽³⁾	8.42%	7.82%	7.54%	60bps	28bps
Net interest margin	6.67	6.21	6.06	46	15
Return on average assets ⁽⁴⁾	1.67	2.92	0.66	(125)	226
Return on average tangible assets ⁽⁵⁾	1.73	3.03	0.69	(130)	234
Return on average common equity ⁽⁶⁾	14.01	21.01	4.49	(7)%	17%
Return on average tangible common equity ⁽⁷⁾	19.91	28.39	6.24	(8)	22
Equity-to-assets ratio ⁽⁸⁾	12.51	14.74	14.15	(223)bps	59bps
Efficiency ratio ⁽⁹⁾	55.95	54.44	52.79	151	165
Operating efficiency ratio ⁽¹⁰⁾	44.22	45.01	47.14	(79)	(213)
Adjusted operating efficiency ratio ⁽¹¹⁾	44.53	44.68	46.01	(15)	(133)
Effective income tax rate from continuing operations	20.3	21.6	15.2	(130)	6%
Net charge-offs	\$ 3,973	\$ 2,234	\$ 5,225	78%	(57)
Net charge-off rate	1.36%	0.88%	2.06%	48bps	(118)bps

<i>(Dollars in millions, except as noted)</i>	December 31,			Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Balance sheet (period-end)					
Loans held for investment	\$ 312,331	\$ 277,340	\$ 251,624	13%	10%
Interest-earning assets	427,248	397,341	388,917	8	2
Total assets	455,249	432,381	421,602	5	3
Interest-bearing deposits	300,789	272,937	274,300	10	—
Total deposits	332,992	310,980	305,442	7	2
Borrowings	48,715	43,086	40,539	13	6
Common equity	47,737	56,184	55,356	(15)	1
Total stockholders' equity	52,582	61,029	60,204	(14)	1
Credit quality metrics					
Allowance for credit losses	\$ 13,240	\$ 11,430	\$ 15,564	16%	(27)%
Allowance as a percentage of loans held for investment ("allowance coverage ratio")	4.24%	4.12%	6.19%	12 bps	(207)bps
30+ day performing delinquency rate	2.96	2.25	2.41	71	(16)
30+ day delinquency rate	3.21	2.41	2.61	80	(20)
Capital ratios					
Common equity Tier 1 capital ⁽¹²⁾	12.5%	13.1%	13.7%	(60)bps	(60)bps
Tier 1 capital ⁽¹²⁾	13.9	14.5	15.3	(60)	(80)
Total capital ⁽¹²⁾	15.8	16.9	17.7	(110)	(80)
Tier 1 leverage ⁽¹²⁾	11.1	11.6	11.2	(50)	40
Tangible common equity ⁽¹³⁾	7.5	9.9	10.0	(240)	(10)
Supplementary leverage ⁽¹²⁾⁽¹⁴⁾	9.5	9.9	10.7	(40)	(80)

Other

	December 31,			Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
<i>(Dollars in millions, except as noted)</i>					
Employees (period end, in thousands)	56.0	50.8	52.0	10%	(2)%

- (1) Tangible book value per common share is a non-GAAP measure calculated based on tangible common equity (“TCE”) divided by common shares outstanding. See “Supplemental Tables—Table B—Reconciliation of Non-GAAP Measures” for additional information on non-GAAP measures.
- (2) Common dividend payout ratio is calculated based on dividends per common share for the period divided by basic earnings per common share for the period.
- (3) Total net revenue margin is calculated based on total net revenue for the period divided by average interest-earning assets for the period.
- (4) Return on average assets is calculated based on income from continuing operations, net of tax, for the period divided by average total assets for the period.
- (5) Return on average tangible assets is a non-GAAP measure calculated based on income from continuing operations, net of tax, for the period divided by average tangible assets for the period. See “Supplemental Tables—Table B—Reconciliation of Non-GAAP Measures” for additional information on non-GAAP measures.
- (6) Return on average common equity is calculated based on net income (loss) available to common stockholders less income (loss) from discontinued operations, net of tax, for the period, divided by average common equity. Our calculation of return on average common equity may not be comparable to similarly-titled measures reported by other companies.
- (7) Return on average tangible common equity is a non-GAAP measure calculated based on net income (loss) available to common stockholders less income (loss) from discontinued operations, net of tax, for the period, divided by average TCE. Our calculation of return on average TCE may not be comparable to similarly-titled measures reported by other companies. See “Supplemental Tables—Table B—Reconciliation of Non-GAAP Measures” for additional information on non-GAAP measures.
- (8) Equity-to-assets ratio is calculated based on average stockholders’ equity for the period divided by average total assets for the period.
- (9) Efficiency ratio is calculated based on total non-interest expense for the period divided by total net revenue for the period.
- (10) Operating efficiency ratio is calculated based on operating expense for the period divided by total net revenue for the period.
- (11) Adjusted operating efficiency ratio is a non-GAAP measure. See “Supplemental Tables—Table B—Reconciliation of Non-GAAP Measures” for a reconciliation of our adjusted operating efficiency ratio (non-GAAP) to our operating efficiency ratio (GAAP).
- (12) Capital ratios are calculated based on the Basel III standardized approach framework, see “Capital Management” for additional information.
- (13) Tangible common equity ratio is a non-GAAP measure calculated based on TCE divided by tangible assets. See “Supplemental Tables—Table B—Reconciliation of Non-GAAP Measures” for the calculation of this measure and reconciliation to the comparative U.S. GAAP measure.
- (14) The Company’s supplementary leverage ratio as of December 31, 2020 reflected the temporary exclusions of U.S Treasury securities and deposits with the Federal Reserve Banks from the denominator of the supplementary leverage ratio, pursuant to an interim final rule issued by the Federal Reserve in April 2020. These temporary exclusions remained in effect through March 31, 2021 and expired as scheduled thereafter. For the description of the regulatory capital rules to which we are subject, see “Capital Management—Capital Standards and Prompt Corrective Action.”

** Not meaningful.

EXECUTIVE SUMMARY

Financial Highlights

We reported net income of \$7.4 billion (\$17.91 per diluted common share) on total net revenue of \$34.3 billion for 2022. In comparison, we reported net income of \$12.4 billion (\$26.94 per diluted common share) on total net revenue of \$30.4 billion for 2021 and net income of \$2.7 billion (\$5.18 per diluted common share) on total net revenue of \$28.5 billion for 2020.

Our common equity Tier 1 capital ratio as calculated under the Basel III standardized approach was 12.5% and 13.1% as of December 31, 2022 and 2021, respectively. See “Capital Management” for additional information.

In January 2022, our Board of Directors authorized the repurchase of up to \$5.0 billion of shares of our common stock. In April 2022, our Board of Directors authorized the repurchase of up to an additional \$5.0 billion of shares of our common stock. For the year ended December 31, 2022, we repurchased \$4.8 billion of shares of our common stock. See “MD&A—Capital Management—Dividend Policy and Stock Purchases” for additional information.

Below are additional highlights of our performance in 2022. These highlights are based on a comparison between the results of 2022 and 2021, except as otherwise noted. The changes in our financial condition and credit performance are generally based on our financial condition and credit performance as of December 31, 2022 compared to December 31, 2021. We provide a more detailed discussion of our financial performance in the sections following this “Executive Summary.”

Discussions of our performance for 2021 compared to 2020 can be found in “Part II—Item 7. MD&A” of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Total Company Performance

- *Earnings:*

Our net income decreased by \$5.0 billion to \$7.4 billion in 2022 compared to 2021 primarily driven by:

- Higher provision for credit losses primarily driven by a net allowance build across all of our segments due to credit normalization, a modestly worse economic outlook and loan growth, compared to a net allowance release across all of our segments in 2021.
- Higher non-interest expense primarily driven by increased marketing spend, as well as continued investment in technology.

These drivers were partially offset by:

- Higher net interest income and net interest margin primarily driven by higher average loan balances in our credit card loan portfolio relative to the movement of other interest-earning assets.
- Higher non-interest income primarily driven by higher net interchange fees due to an increase in purchase volume.

- *Loans Held for Investment:*

- Period-end loans held for investment increased by \$35.0 billion to \$312.3 billion as of December 31, 2022 from December 31, 2021 primarily driven by growth across all of our segments, including \$23.0 billion in Credit Card.
- Average loans held for investment increased by \$39.5 billion to \$292.2 billion in 2022 compared to 2021 primarily driven by growth across all of our segments, including \$17.7 billion in Credit Card.

- *Net Charge-Off and Delinquency Metrics:*

- Our net charge-off rate increased by 48 basis points (“bps”) to 1.36% in 2022 compared to 2021 primarily driven by continued credit normalization in our consumer businesses.
- Our 30+ day delinquency rate increased by 80 bps to 3.21% as of December 31, 2022 from December 31, 2021 primarily driven by continued credit normalization.

- *Allowance for Credit Losses:* Our allowance for credit losses increased by \$1.8 billion to \$13.2 billion and our allowance coverage ratio increased by 12 bps to 4.24% as of December 31, 2022 compared to December 31, 2021.

CONSOLIDATED RESULTS OF OPERATIONS

The section below provides a comparative discussion of our consolidated financial performance for 2022 and 2021. We provide a discussion of our business segment results in the following section, “Business Segment Financial Performance.” This section should be read together with our “Executive Summary,” where we discuss trends and other factors that we expect will affect our future results of operations.

Net Interest Income

Net interest income represents the difference between interest income, including certain fees, earned on our interest-earning assets and the interest expense incurred on our interest-bearing liabilities. Our interest-earning assets include loans, investment securities and other interest-earning assets, while our interest-bearing liabilities include interest-bearing deposits, securitized debt obligations, senior and subordinated notes, other borrowings and other interest-bearing liabilities. Generally, we include in interest income any past due fees, net of reversals, on loans that we deem collectible. Our net interest margin, based on our consolidated results, represents the difference between the yield on our interest-earning assets and the cost of our interest-bearing liabilities, including the notional impact of non-interest-bearing funding. We expect net interest income and our net interest margin to fluctuate based on changes in interest rates and changes in the amount and composition of our interest-earning assets and interest-bearing liabilities.

Table 1 below presents the average outstanding balance, interest income earned, interest expense incurred and average yield for 2022, 2021 and 2020 for each major category of our interest-earning assets and interest-bearing liabilities. Nonperforming loans are included in the average loan balances below.

Table 1: Average Balances, Net Interest Income and Net Interest Margin

<i>(Dollars in millions)</i>	Year Ended December 31,								
	2022			2021			2020		
	Average Balance	Interest Income/Expense	Average Yield/Rate ⁽¹⁾	Average Balance	Interest Income/Expense	Average Yield/Rate ⁽¹⁾	Average Balance	Interest Income/Expense	Average Yield/Rate ⁽¹⁾
Assets:									
Interest-earning assets:									
Loans: ⁽²⁾									
Credit card	\$121,055	\$ 19,626	16.21 %	\$106,016	\$ 15,474	14.60 %	\$110,634	\$ 15,575	14.08%
Consumer banking	80,511	5,782	7.18	73,874	5,804	7.86	66,299	5,551	8.37
Commercial banking ⁽³⁾	92,273	3,702	4.01	77,438	2,119	2.74	77,968	2,438	3.13
Other ⁽⁴⁾	—	(200)	**	—	866	**	—	510	**
Total loans, including loans held for sale	293,839	28,910	9.84	257,328	24,263	9.43	254,901	24,074	9.44
Investment securities	90,608	1,884	2.08	98,394	1,446	1.47	87,222	1,877	2.15
Cash equivalents and other interest-earning assets	22,199	443	2.00	33,614	60	0.18	36,239	82	0.23
Total interest-earning assets	406,646	31,237	7.68	389,336	25,769	6.62	378,362	26,033	6.88
Cash and due from banks	5,054			5,281			4,839		
Allowance for credit losses	(11,620)			(13,354)			(14,382)		
Premises and equipment, net	4,265			4,257			4,334		
Other assets	36,193			39,001			38,034		
Total assets	\$440,538			\$424,521			\$411,187		
Liabilities and stockholders' equity:									
Interest-bearing liabilities:									
Interest-bearing deposits	\$277,208	\$ 2,535	0.91 %	\$271,500	\$ 956	0.35 %	\$263,279	\$ 2,165	0.82%
Securitized debt obligations	15,603	384	2.46	12,336	119	0.96	15,533	232	1.49
Senior and subordinated notes	29,286	1,074	3.67	25,530	488	1.91	29,621	679	2.29
Other borrowings and liabilities	7,800	130	1.67	2,261	35	1.57	2,882	44	1.55
Total interest-bearing liabilities	329,897	4,123	1.25	311,627	1,598	0.51	311,315	3,120	1.00
Non-interest-bearing deposits	36,343			34,897			27,556		
Other liabilities	19,173			15,441			14,115		
Total liabilities	385,413			361,965			352,986		
Stockholders' equity	55,125			62,556			58,201		
Total liabilities and stockholders' equity	\$440,538			\$424,521			\$411,187		
Net interest income/spread		\$ 27,114	6.43		\$ 24,171	6.11		\$ 22,913	5.88
Impact of non-interest-bearing funding			0.24			0.10			0.18
Net interest margin			6.67 %			6.21 %			6.06%

⁽¹⁾ Average yield is calculated based on interest income for the period divided by average loans during the period. Interest income does not include any allocations, such as funds transfer pricing. Average yield is calculated using whole dollar values for average balances and interest income/expense.

⁽²⁾ Past due fees, net of reversals, included in interest income totaled approximately \$1.9 billion in 2022, \$1.4 billion in 2021 and \$1.3 billion in 2020.

⁽³⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reductions to the Other category. Taxable-equivalent adjustments included in the interest income and yield computations for our commercial loans totaled approximately \$74 million in both 2022 and 2021, and \$81 million in 2020, with corresponding reductions to the Other category.

⁽⁴⁾ Interest income/expense in the Other category represents the impact of hedge accounting on our loan portfolios and the offsetting reduction of the taxable-equivalent adjustments of our commercial loans as described above.

** Not meaningful.

Net interest income increased by \$2.9 billion to \$27.1 billion in 2022 compared to 2021 primarily driven by higher average loan balances in our credit card loan portfolio.

Net interest margin increased by 46 basis points to 6.67% in 2022 compared to 2021 primarily driven by growth in our credit card loan portfolio relative to the movement in other interest-earning assets, partially offset by higher rates paid on interest-bearing liabilities.

Table 2 displays the change in our net interest income between periods and the extent to which the variance is attributable to:

- changes in the volume of our interest-earning assets and interest-bearing liabilities; or
- changes in the interest rates related to these assets and liabilities.

Table 2: Rate/Volume Analysis of Net Interest Income⁽¹⁾

<i>(Dollars in millions)</i>	2022 vs. 2021			2021 vs. 2020		
	Total Variance	Volume	Rate	Total Variance	Volume	Rate
Interest income:						
Loans:						
Credit card	\$ 4,152	\$ 2,324	\$ 1,828	\$ (101)	\$ (650)	\$ 549
Consumer banking	(22)	477	(499)	253	595	(342)
Commercial banking ⁽²⁾	1,583	454	1,129	(319)	(16)	(303)
Other ⁽³⁾	(1,066)	—	(1,066)	356	—	356
Total loans, including loans held for sale	4,647	3,255	1,392	189	(71)	260
Investment securities	438	(115)	553	(431)	164	(595)
Cash equivalents and other interest-earning assets	383	(20)	403	(22)	(6)	(16)
Total interest income	5,468	3,120	2,348	(264)	87	(351)
Interest expense:						
Interest-bearing deposits	1,579	20	1,559	(1,209)	29	(1,238)
Securitized debt obligations	265	37	228	(113)	(41)	(72)
Senior and subordinated notes	586	80	506	(191)	(86)	(105)
Other borrowings and liabilities	95	92	3	(9)	(9)	—
Total interest expense	2,525	229	2,296	(1,522)	(107)	(1,415)
Net interest income	\$ 2,943	\$ 2,891	\$ 52	\$ 1,258	\$ 194	\$ 1,064

⁽¹⁾ We calculate the change in interest income and interest expense separately for each item. The portion of interest income or interest expense attributable to both volume and rate is allocated proportionately when the calculation results in a positive value. When the portion of interest income or interest expense attributable to both volume and rate results in a negative value, the total amount is allocated to volume or rate, depending on which amount is positive.

⁽²⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reductions to the Other category.

⁽³⁾ Interest income/expense in the Other category represents the impact of hedge accounting on our loan portfolios and the offsetting reduction of the taxable-equivalent adjustments of our commercial loans as described above.

Non-Interest Income

Table 3 displays the components of non-interest income for 2022, 2021 and 2020.

Table 3: Non-Interest Income

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Interchange fees, net	\$ 4,606	\$ 3,860	\$ 3,017
Service charges and other customer-related fees	1,625	1,578	1,243
Other non-interest income: ⁽¹⁾			
Mortgage banking revenue	193	235	249
Treasury and other investment income	51	151	701
Other ⁽²⁾	661	440	400
Total other non-interest income	905	826	1,350
Total non-interest income	\$ 7,136	\$ 6,264	\$ 5,610

⁽¹⁾ Includes a loss of \$78 million and gains of \$69 million and \$45 million on deferred compensation plan investments for 2022, 2021 and 2020, respectively. These amounts have corresponding offsets in non-interest expense.

⁽²⁾ Primarily consists of revenue from Capital One Shopping, our credit card partnership agreements and gains or losses on loan sales. In 2022, the gain on sale of card partnership loan portfolios was \$192 million.

Non-interest income increased by \$872 million to \$7.1 billion in 2022 compared to 2021 primarily driven by higher net interchange fees due to an increase in purchase volume in our Credit Card business.

Provision for Credit Losses

Our provision for credit losses in each period is driven by net charge-offs, changes to the allowance for credit losses and changes to the reserve for unfunded lending commitments. We recorded a provision for credit losses of \$5.8 billion in 2022, \$(1.9) billion in 2021 and \$10.3 billion in 2020.

Our provision for credit losses increased by \$7.8 billion to \$5.8 billion in 2022 compared to 2021 primarily driven by a net allowance build across all of our segments due to credit normalization, a modestly worse economic outlook and loan growth, compared to a net allowance release across all of our segments in 2021.

We provide additional information on the provision for credit losses and changes in the allowance for credit losses within “Credit Risk Profile” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 4—Allowance for Credit Losses and Reserve for Unfunded Lending Commitments.” For information on the allowance methodology for each of our loan categories, see “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies.”

Non-Interest Expense

Table 4 displays the components of non-interest expense for 2022, 2021 and 2020.

Table 4: Non-Interest Expense

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Operating Expense:			
Salaries and associate benefits ⁽¹⁾	\$ 8,425	\$ 7,421	\$ 6,805
Occupancy and equipment	2,050	2,003	2,118
Professional services	1,807	1,440	1,312
Communications and data processing	1,379	1,262	1,215
Amortization of intangibles	70	29	60
Other non-interest expense:			
Bankcard, regulatory and other fee assessments	264	199	267
Collections	331	360	323
Other	820	985	1,346
Total other non-interest expense	1,415	1,544	1,936
Total operating expense	\$ 15,146	\$ 13,699	\$ 13,446
Marketing	4,017	2,871	1,610
Total non-interest expense	\$ 19,163	\$ 16,570	\$ 15,056

⁽¹⁾ Includes a benefit of \$78 million and expenses of \$69 million and \$45 million related to our deferred compensation plan investments for 2022, 2021 and 2020, respectively. These amounts have corresponding offsets from investments in other non-interest income.

Non-interest expense increased by \$2.6 billion to \$19.2 billion in the year ended 2022 compared to 2021, primarily driven by increased marketing spend and increased salaries and associate benefits due to increased employee headcount and continued investment in technology.

Income Taxes

We recorded an income tax provision of \$1.9 billion (20.3% effective income tax rate), \$3.4 billion (21.6% effective income tax rate), and \$486 million (15.2% effective income tax rate) in 2022, 2021 and 2020, respectively. Our effective tax rate on income from continuing operations varies between periods due, in part, to the impact of changes in pre-tax income and changes in tax credits, tax-exempt income and non-deductible expenses relative to our pre-tax earnings.

Our effective income tax rate in 2022 decreased by 1.3% compared to 2021. We recorded discrete tax benefits of \$71 million in 2022, \$66 million in 2021 and \$22 million in 2020.

We provide additional information on items affecting our income taxes and effective tax rate in “Part II—Item 8. Financial Statements and Supplementary Data—Note 15—Income Taxes.”

CONSOLIDATED BALANCE SHEETS ANALYSIS

Total assets increased by \$22.9 billion to \$455.2 billion as of December 31, 2022 from December 31, 2021 primarily driven by growth in our loan portfolios, partially offset by a decrease in our investment securities portfolio.

Total liabilities increased by \$31.3 billion to \$402.7 billion as of December 31, 2022 from December 31, 2021 primarily driven by deposit growth.

Stockholders' equity decreased by \$8.4 billion to \$52.6 billion as of December 31, 2022 from December 31, 2021 primarily driven by a decrease in AOCI due to a decline in the fair value of our investment securities portfolio and our common stock repurchases, partially offset by net income of \$7.4 billion.

The following is a discussion of material changes in the major components of our assets and liabilities during 2022. Period-end balance sheet amounts may vary from average balance sheet amounts due to liquidity and balance sheet management activities that are intended to support the adequacy of capital while managing our liquidity requirements, our customers and our market risk exposure in accordance with our risk appetite.

Investment Securities

Our investment securities portfolio consists of the following: U.S. government-sponsored enterprise or agency ("Agency") and non-agency residential mortgage-backed securities ("RMBS"), agency commercial mortgage-backed securities ("CMBS"), U.S. Treasury securities and other securities. Agency securities include Government National Mortgage Association ("Ginnie Mae") guaranteed securities, Federal National Mortgage Association ("Fannie Mae") and Federal Home Loan Mortgage Corporation ("Freddie Mac") issued securities. The carrying value of our investments in Agency and U.S. Treasury securities represented 97% and 96% of our total investment securities portfolio as of December 31, 2022 and 2021, respectively.

The fair value of our available for sale securities portfolio decreased by \$18.3 billion to \$76.9 billion as of December 31, 2022 from December 31, 2021, driven by increases in interest rates and credit spreads, lower reinvestment rates of principal paydowns, and sales. See "Part II—Item 8. Financial Statements and Supplementary Data—Note 2—Investment Securities" for more information.

Loans Held for Investment

Total loans held for investment consists of both unsecuritized loans and loans held in our consolidated trusts. Table 5 summarizes, by portfolio segment, the carrying value of our loans held for investment, the allowance for credit losses and net loan balance as of December 31, 2022 and 2021.

Table 5: Loans Held for Investment

<i>(Dollars in millions)</i>	December 31, 2022			December 31, 2021		
	Loans	Allowance	Net Loans	Loans	Allowance	Net Loans
Credit Card	\$ 137,730	\$ 9,545	\$ 128,185	\$ 114,772	\$ 8,345	\$ 106,427
Consumer Banking	79,925	2,237	77,688	77,646	1,918	75,728
Commercial Banking	94,676	1,458	93,218	84,922	1,167	83,755
Total	<u>\$ 312,331</u>	<u>\$ 13,240</u>	<u>\$ 299,091</u>	<u>\$ 277,340</u>	<u>\$ 11,430</u>	<u>\$ 265,910</u>

Loans held for investment increased by \$35.0 billion to \$312.3 billion as of December 31, 2022 from December 31, 2021 primarily driven by growth across all of our segments.

We provide additional information on the composition of our loan portfolio and credit quality in "Credit Risk Profile," "Consolidated Results of Operations" and "Part II—Item 8. Financial Statements and Supplementary Data—Note 3—Loans."

Funding Sources

Our primary source of funding comes from deposits, as they are a stable and relatively low cost source of funding. In addition to deposits, we raise funding through the issuance of senior and subordinated notes, securitized debt obligations, federal funds

purchased, securities loaned or sold under agreements to repurchase, and FHLB advances secured by certain portions of our loan and securities portfolios.

Table 6 provides the composition of our primary sources of funding as of December 31, 2022 and 2021.

Table 6: Funding Sources Composition

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	% of Total	Amount	% of Total
Deposits:				
Consumer Banking	\$ 270,592	71 %	\$ 256,407	72 %
Commercial Banking	40,808	11	44,809	13
Other ⁽¹⁾	21,592	6	9,764	3
Total deposits	332,992	88	310,980	88
Securitized debt obligations	16,973	4	14,994	4
Other debt	31,742	8	28,092	8
Total funding sources	\$ 381,707	100 %	\$ 354,066	100 %

⁽¹⁾ Includes brokered deposits of \$20.6 billion and \$8.6 billion as of December 31, 2022 and 2021, respectively.

Total deposits increased by \$22.0 billion to \$333.0 billion as of December 31, 2022 from December 31, 2021 primarily driven by our national banking strategy and issuances of brokered deposits.

Securitized debt obligations increased by \$2.0 billion to \$17.0 billion as of December 31, 2022 from December 31, 2021 primarily driven by net issuances in our auto and credit card securitization programs.

Other debt increased by \$3.7 billion to \$31.7 billion as of December 31, 2022 from December 31, 2021 primarily driven by net issuances of senior debt.

We provide additional information on our funding sources in “Liquidity Risk Profile” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 8—Deposits and Borrowings.”

Deferred Tax Assets and Liabilities

Deferred tax assets and liabilities represent decreases or increases in taxes expected to be paid in the future because of future reversals of temporary differences between the financial reporting and tax bases of assets and liabilities, as well as from net operating loss and tax credit carryforwards. Deferred tax assets are recognized subject to management’s judgment that these future deductions are more likely than not to be realized. We evaluate the recoverability of these future tax deductions by assessing the adequacy of expected taxable income from all sources, including taxable income in carryback years, reversal of taxable temporary differences, forecasted operating earnings and available tax planning strategies. These sources of income rely heavily on estimates. We use our historical experience and our short and long-range business forecasts to make these estimates.

Deferred tax assets, net of deferred tax liabilities and valuation allowances, were approximately \$7.7 billion as of December 31, 2022, an increase of \$4.0 billion from December 31, 2021. The increase in our net deferred tax assets was primarily driven by the decrease in fair value of our available for sale securities and derivatives, as well as the increase in allowance for credit losses in 2022.

We recorded valuation allowances of \$446 million and \$355 million as of December 31, 2022 and 2021, respectively. If changes in circumstances lead us to change our judgment about our ability to realize deferred tax assets in future years, we will adjust our valuation allowances in the period that our change in judgment occurs and record a corresponding increase or charge to income.

We provide additional information on income taxes in “Consolidated Results of Operations” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 15—Income Taxes.”

OFF-BALANCE SHEET ARRANGEMENTS

In the ordinary course of business, we engage in certain activities that are not reflected on our consolidated balance sheets, generally referred to as off-balance sheet arrangements. These activities typically involve transactions with unconsolidated variable interest entities (“VIEs”) as well as other arrangements, such as letters of credit, loan commitments and guarantees, to meet the financing needs of our customers and support their ongoing operations. We provide additional information regarding these types of activities in “Part II—Item 8. Financial Statements and Supplementary Data—Note 5—Variable Interest Entities and Securitizations” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 18—Commitments, Contingencies, Guarantees and Others.”

BUSINESS SEGMENT FINANCIAL PERFORMANCE

Our principal operations are organized for management reporting purposes into three major business segments, which are defined primarily based on the products and services provided or the types of customer served: Credit Card, Consumer Banking and Commercial Banking. The operations of acquired businesses have been integrated into or managed as a part of our existing business segments. Certain activities that are not part of a segment, such as management of our corporate investment portfolio, asset/liability management and oversight of our funds transfer pricing process, are centralized in our Corporate Treasury group. Our residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments is included in the Other category.

The results of our individual businesses, which we report on a continuing operations basis, reflect the manner in which management evaluates performance and makes decisions about funding our operations and allocating resources. We may periodically change our business segments or reclassify business segment results based on modifications to our management reporting methodologies and changes in organizational alignment. Our business segment results are intended to reflect each segment as if it were a stand-alone business. We use an internal management and reporting process to derive our business segment results. Our internal management and reporting process employs various allocation methodologies, including funds transfer pricing, to assign certain balance sheet assets, deposits and other liabilities and their related revenue and expenses directly or indirectly attributable to each business segment. Total interest income and non-interest income are directly attributable to the segment in which they are reported. The net interest income of each segment reflects the results of our funds transfer pricing process, which is primarily based on a matched funding concept that takes into consideration market interest rates. Our funds transfer pricing process is managed by our centralized Corporate Treasury group and provides a funds credit for sources of funds, such as deposits generated by our Consumer Banking and Commercial Banking businesses, and a charge for the use of funds by each segment. The allocation is unique to each business segment and acquired business and is based on the composition of assets and liabilities. The funds transfer pricing process considers the interest rate and liquidity risk characteristics of assets and liabilities and off-balance sheet products. Periodically, the methodology and assumptions utilized in the funds transfer pricing process are adjusted to reflect economic conditions and other factors, which may impact the allocation of net interest income to the business segments. We regularly assess the assumptions, methodologies and reporting classifications used for segment reporting, which may result in the implementation of refinements or changes in future periods.

We refer to the business segment results derived from our internal management accounting and reporting process as our “managed” presentation, which differs in some cases from our reported results prepared based on U.S. GAAP. There is no comprehensive authoritative body of guidance for management accounting equivalent to U.S. GAAP; therefore, the managed presentation of our business segment results may not be comparable to similar information provided by other financial services companies. In addition, our individual business segment results should not be used as a substitute for comparable results determined in accordance with U.S. GAAP.

We summarize our business segment results for the years ended December 31, 2022, 2021 and 2020 and provide a comparative discussion of these results for 2022 and 2021, as well as changes in our financial condition and credit performance metrics as of December 31, 2022 compared to December 31, 2021. We provide a reconciliation of our total business segment results to our reported consolidated results in “Part II—Item 8. Financial Statements and Supplementary Data—Note 17—Business Segments and Revenue from Contracts with Customers.”

Business Segment Financial Performance

Table 7 summarizes our business segment results, which we report based on revenue (loss) and income (loss) from continuing operations, for the years ended December 31, 2022, 2021 and 2020. We provide information on the allocation methodologies used to derive our business segment results in “Part II—Item 8. Financial Statements and Supplementary Data—Note 17—Business Segments and Revenue from Contracts with Customers.”

Table 7: Business Segment Results

	Year Ended December 31,											
	2022				2021				2020			
	Total Net Revenue (Loss) ⁽¹⁾		Net Income (Loss) ⁽²⁾		Total Net Revenue (Loss) ⁽¹⁾		Net Income (Loss) ⁽²⁾		Total Net Revenue ⁽¹⁾		Net Income (Loss) ⁽²⁾	
<i>(Dollars in millions)</i>	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
Credit Card	\$22,355	65%	\$ 4,927	67%	\$18,880	62%	\$ 7,758	63%	\$17,599	62%	\$ 1,361	50%
Consumer Banking	9,434	28	2,250	31	9,002	29	3,676	30	7,704	27	1,367	51
Commercial Banking ⁽³⁾	3,590	10	843	11	3,301	11	1,532	12	2,971	10	65	2
Other ⁽³⁾	(1,129)	(3)	(660)	(9)	(748)	(2)	(572)	(5)	249	1	(76)	(3)
Total	\$34,250	100%	\$ 7,360	100%	\$30,435	100%	\$12,394	100%	\$28,523	100%	\$ 2,717	100%

⁽¹⁾ Total net revenue (loss) consists of net interest income and non-interest income.

⁽²⁾ Net income (loss) for our business segments and the Other category is based on income (loss) from continuing operations, net of tax.

⁽³⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reductions to the Other category.

Credit Card Business

The primary sources of revenue for our Credit Card business are net interest income, net interchange income and fees collected from customers. Expenses primarily consist of the provision for credit losses, operating costs and marketing expenses.

Our Credit Card business generated net income from continuing operations of \$4.9 billion, \$7.8 billion and \$1.4 billion in 2022, 2021 and 2020, respectively.

Table 8 summarizes the financial results of our Credit Card business and displays selected key metrics for the periods indicated.

Table 8: Credit Card Business Results

<i>(Dollars in millions, except as noted)</i>	Year Ended December 31,			Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Selected income statement data:					
Net interest income	\$ 16,584	\$ 14,074	\$ 13,776	18%	2%
Non-interest income	5,771	4,806	3,823	20	26
Total net revenue ⁽¹⁾	22,355	18,880	17,599	18	7
Provision (benefit) for credit losses	4,265	(902)	7,327	**	**
Non-interest expense	11,627	9,621	8,491	21	13
Income from continuing operations before income taxes	6,463	10,161	1,781	(36)	**
Income tax provision	1,536	2,403	420	(36)	**
Income from continuing operations, net of tax	\$ 4,927	\$ 7,758	\$ 1,361	(36)	**
Selected performance metrics:					
Average loans held for investment	\$ 120,392	\$ 102,731	\$ 110,082	17	(7)
Average yield on loans ⁽²⁾	16.21%	14.60%	14.08%	161bps	52bps
Total net revenue margin ⁽³⁾	18.47	17.81	15.91	66	190
Net charge-offs	\$ 3,048	\$ 1,956	\$ 4,270	56%	(54)%
Net charge-off rate	2.53%	1.90%	3.88%	63bps	(198)bps
Purchase volume	\$ 587,283	\$ 527,605	\$ 414,312	11%	27%
 <i>(Dollars in millions, except as noted)</i>					
	December 31, 2022	December 31, 2021	Change		
Selected period-end data:					
Loans held for investment	\$ 137,730	\$ 114,772	20%		
30+ day performing delinquency rate	3.46%	2.28%	118bps		
30+ day delinquency rate	3.46	2.29	117		
Nonperforming loan rate ⁽⁴⁾	0.01	0.01	—		
Allowance for credit losses	\$ 9,545	\$ 8,345	14%		
Allowance coverage ratio	6.93%	7.27%	(34)bps		

⁽¹⁾ We recognize finance charges and fee income on open-ended loans in accordance with the contractual provisions of the credit arrangements and charge off any uncollectible amounts. Total net revenue was reduced by \$946 million, \$629 million and \$1.1 billion in 2022, 2021 and 2020, respectively, for finance charges and fees charged-off as uncollectible.

⁽²⁾ Average yield is calculated based on interest income for the period divided by average loans during the period and does not include any allocations, such as funds transfer pricing.

⁽³⁾ Total net revenue margin is calculated based on total net revenue for the period divided by average loans during the period.

⁽⁴⁾ Within our credit card loan portfolio, only certain loans in our international card businesses are classified as nonperforming. See “Nonperforming Loans and Other Nonperforming Assets” for additional information.

** Not meaningful.

Key factors affecting the results of our Credit Card business for 2022 compared to 2021, and changes in financial condition and credit performance between December 31, 2022 and 2021 include the following:

- *Net Interest Income:* Net interest income increased by \$2.5 billion to \$16.6 billion in 2022 primarily driven by higher average loan balances.
- *Non-Interest Income:* Non-interest income increased by \$965 million to \$5.8 billion in 2022 primarily driven by higher net interchange fees due to an increase in purchase volume.
- *Provision for Credit Losses:* Provision for credit losses increased by \$5.2 billion to \$4.3 billion in 2022 primarily driven by a net allowance build due to credit normalization, a modestly worse economic outlook and loan growth, compared to a net allowance release in 2021.

- *Non-Interest Expense:* Non-interest expense increased by \$2.0 billion to \$11.6 billion in 2022 primarily driven by increased marketing spend, as well as continued investment in technology.

Loans Held for Investment:

- Period-end loans held for investment increased by \$23.0 billion to \$137.7 billion as of December 31, 2022 from December 31, 2021 and average loans held for investment increased by \$17.7 billion to \$120.4 billion in 2022 compared to 2021 primarily driven by continued strength in purchase volume, which outpaced customer payments.

Net Charge-Off and Delinquency Metrics:

- The net charge-off rate increased by 63 basis points to 2.53% in 2022 compared to 2021 primarily driven by continued credit normalization.
- The 30+ day delinquency rate increased by 117 basis points to 3.46% as of December 31, 2022 from December 31, 2021 primarily driven by continued credit normalization.

Domestic Card Business

The Domestic Card business generated net income from continuing operations of \$4.7 billion, \$7.3 billion and \$1.2 billion in 2022, 2021 and 2020, respectively. In 2022, 2021 and 2020, the Domestic Card business accounted for greater than 90% of total net revenue of our Credit Card business.

Table 8.1 summarizes the financial results for Domestic Card business and displays selected key metrics for the periods indicated.

Table 8.1: Domestic Card Business Results

<i>(Dollars in millions, except as noted)</i>	Year Ended December 31,			Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Selected income statement data:					
Net interest income	\$ 15,616	\$ 12,916	\$ 12,599	21%	3%
Non-interest income	5,363	4,532	3,583	18	26
Total net revenue ⁽¹⁾	20,979	17,448	16,182	20	8
Provision (benefit) for credit losses	4,020	(868)	6,979	**	**
Non-interest expense	10,827	8,712	7,625	24	14
Income from continuing operations before income taxes	6,132	9,604	1,578	(36)	**
Income tax provision	1,453	2,266	374	(36)	**
Income from continuing operations, net of tax	\$ 4,679	\$ 7,338	\$ 1,204	(36)	**
Selected performance metrics:					
Average loans held for investment	\$ 114,506	\$ 95,818	\$ 101,837	20	(6)
Average yield on loans ⁽²⁾	16.07%	14.49%	13.88%	158bps	61bps
Total net revenue margin ⁽³⁾	18.28	17.85	15.80	43	205
Net charge-offs	\$ 2,833	\$ 1,820	\$ 4,002	56%	(55)%
Net charge-off rate	2.47%	1.90%	3.93%	57bps	(203)bps
Purchase volume	\$ 568,752	\$ 487,297	\$ 380,787	17%	28%
<i>(Dollars in millions, except as noted)</i>					
	December 31, 2022	December 31, 2021	Change		
Selected period-end data:					
Loans held for investment	\$ 131,581	\$ 108,723	21%		
30+ day performing delinquency rate	3.43%	2.22%	121bps		
Allowance for credit losses	\$ 9,165	\$ 7,968	15%		
Allowance coverage ratio	6.97%	7.33%	(36)bps		

⁽¹⁾ We recognize finance charges and fee income on open-ended loans in accordance with the contractual provisions of the credit arrangements and charge off any uncollectible amounts. Finance charges and fees charged off as uncollectible are reflected as a reduction in total net revenue.

- ⁽²⁾ Average yield is calculated based on interest income for the period divided by average loans during the period and does not include any allocations, such as funds transfer pricing.
- ⁽³⁾ Total net revenue margin is calculated based on total net revenue for the period divided by average loans during the period.
- ** Not meaningful.

Because our Domestic Card business accounts for the substantial majority of our Credit Card business, the key factors driving the results are similar to the key factors affecting our total Credit Card business. Net income for our Domestic Card business decreased in 2022 compared to 2021 primarily driven by:

- Higher provision for credit losses primarily driven by a net allowance build due to credit normalization, a modestly worse economic outlook and loan growth, compared to a net allowance release in 2021.
- Higher non-interest expense primarily driven by increased marketing spend, as well as continued investment in technology.

These drivers were partially offset by:

- Higher net interest income primarily driven by higher average loan balances.
- Higher non-interest income primarily driven by higher net interchange fees due to an increase in purchase volume.

Consumer Banking Business

The primary sources of revenue for our Consumer Banking business are net interest income from loans and deposits. Expenses primarily consist of the provision for credit losses, operating costs and marketing expenses.

Our Consumer Banking business generated net income from continuing operations of \$2.3 billion, \$3.7 billion and \$1.4 billion in 2022, 2021 and 2020, respectively.

Table 9 summarizes the financial results of our Consumer Banking business and displays selected key metrics for the periods indicated.

Table 9: Consumer Banking Business Results

<i>(Dollars in millions, except as noted)</i>	Year Ended December 31,			Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Selected income statement data:					
Net interest income	\$ 8,965	\$ 8,448	\$ 7,238	6%	17%
Non-interest income	469	554	466	(15)	19
Total net revenue	9,434	9,002	7,704	5	17
Provision (benefit) for credit losses	1,173	(521)	1,753	**	**
Non-interest expense	5,312	4,711	4,159	13	13
Income from continuing operations before income taxes	2,949	4,812	1,792	(39)	169
Income tax provision	699	1,136	425	(38)	167
Income from continuing operations, net of tax	<u>\$ 2,250</u>	<u>\$ 3,676</u>	<u>\$ 1,367</u>	(39)	169
Selected performance metrics:					
Average loans held for investment:					
Auto	\$ 78,772	\$ 71,108	\$ 63,227	11	12
Retail banking	1,663	2,765	3,072	(40)	(10)
Total consumer banking	<u>\$ 80,435</u>	<u>\$ 73,873</u>	<u>\$ 66,299</u>	9	11
Average yield on loans held for investment ⁽¹⁾	7.19%	7.86%	8.37%	(67)bps	(51)bps
Average deposits	\$ 257,089	\$ 251,676	\$ 236,369	2%	6%
Average deposits interest rate	0.72%	0.32%	0.76%	40bps	(44)bps
Net charge-offs	\$ 854	\$ 276	\$ 578	**	(52)%
Net charge-off rate	1.06%	0.37%	0.87%	69bps	(50)bps
Auto loan originations	\$ 36,965	\$ 43,083	\$ 32,282	(14)%	33%

<i>(Dollars in millions, except as noted)</i>	December 31, 2022	December 31, 2021	Change
Selected period-end data:			
Loans held for investment:			
Auto	\$ 78,373	\$ 75,779	3%
Retail banking	1,552	1,867	(17)
Total consumer banking	<u>\$ 79,925</u>	<u>\$ 77,646</u>	3
30+ day performing delinquency rate	5.53%	4.26%	127bps
30+ day delinquency rate	6.18	4.66	152
Nonperforming loan rate	0.79	0.50	29
Nonperforming asset rate ⁽²⁾	0.87	0.56	31
Allowance for credit losses	\$ 2,237	\$ 1,918	17%
Allowance coverage ratio	2.80%	2.47%	33bps
Deposits	\$ 270,592	\$ 256,407	6%

⁽¹⁾ Average yield is calculated based on interest income for the period divided by average loans during the period and does not include any allocations, such as funds transfer pricing.

⁽²⁾ Nonperforming assets primarily consist of nonperforming loans and repossessed assets. The total nonperforming asset rate is calculated based on total nonperforming assets divided by the combined period-end total loans held for investment and repossessed assets.

** Not meaningful.

Key factors affecting the results of our Consumer Banking business for 2022 compared to 2021, and changes in financial condition and credit performance between December 31, 2022 and 2021 include the following:

- *Net Interest Income:* Net interest income increased by \$517 million to \$9.0 billion in 2022 primarily driven by higher margins in our retail banking business due to the increases in interest rates, partially offset by lower margins in our auto business.
- *Non-Interest Income:* Non-interest income decreased by \$85 million to \$469 million in 2022 primarily driven by changes to our customer overdraft and non-sufficient funds policies in our retail banking business.
- *Provision for Credit Losses:* Provision for credit losses increased by \$1.7 billion to \$1.2 billion in 2022 primarily driven by a net allowance build due to credit normalization, a modestly worse economic outlook and loan growth, compared to a net allowance release in 2021.
- *Non-Interest Expense:* Non-interest expense increased by \$601 million to \$5.3 billion in 2022 primarily driven by continued investment in technology and increased marketing spend in our retail banking business.

Loans Held for Investment:

- Period-end loans held for investment increased by \$2.3 billion to \$79.9 billion as of December 31, 2022 from December 31, 2021 and average loans held for investment increased by \$6.6 billion to \$80.4 billion in 2022 compared to 2021 primarily driven by growth in our auto loan portfolio.

Deposits:

- Period-end deposits increased by \$14.2 billion at \$270.6 billion as of December 31, 2022 from December 31, 2021 primarily driven by our national banking strategy.

Net Charge-Off and Delinquency Metrics:

- The net charge-off rate increased by 69 basis points to 1.06% in 2022 compared to 2021 primarily driven by continued credit normalization in our auto loan portfolio.
- The 30+ day delinquency rate increased by 152 basis points to 6.18% as of December 31, 2022 from December 31, 2021 primarily driven by continued credit normalization in our auto loan portfolio.

Commercial Banking Business

The primary sources of revenue for our Commercial Banking business are net interest income from loans and deposits and non-interest income earned from products and services provided to our clients such as advisory services, capital markets and treasury management. Because our Commercial Banking business has loans and investments that generate tax-exempt income, tax credits or other tax benefits, we present the revenues on a taxable-equivalent basis. Expenses primarily consist of the provision for credit losses and operating costs.

Our Commercial Banking business generated net income from continuing operations of \$843 million, \$1.5 billion and \$65 million in 2022, 2021 and 2020, respectively.

Table 10 summarizes the financial results of our Commercial Banking business and displays selected key metrics for the periods indicated.

Table 10: Commercial Banking Business Results

<i>(Dollars in millions, except as noted)</i>	Year Ended December 31,			Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Selected income statement data:					
Net interest income	\$ 2,461	\$ 2,153	\$ 2,048	14%	5%
Non-interest income	1,129	1,148	923	(2)	24
Total net revenue ⁽¹⁾	3,590	3,301	2,971	9	11
Provision (benefit) for credit losses ⁽²⁾	415	(519)	1,181	**	**
Non-interest expense	2,070	1,815	1,706	14	6
Income from continuing operations before income taxes	1,105	2,005	84	(45)	**
Income tax provision	262	473	19	(45)	**
Income from continuing operations, net of tax	\$ 843	\$ 1,532	\$ 65	(45)	**
Selected performance metrics:					
Average loans held for investment:					
Commercial and multifamily real estate	\$ 36,639	\$ 30,980	\$ 31,135	18	—
Commercial and industrial	54,772	45,146	45,819	21	(1)
Total commercial banking	\$ 91,411	\$ 76,126	\$ 76,954	20	(1)
Average yield on loans held for investment ⁽¹⁾⁽³⁾	4.02%	2.74%	3.13%	128bps	(39)bps
Average deposits	\$ 42,018	\$ 42,350	\$ 35,468	(1)%	19%
Average deposits interest rate	0.73%	0.14%	0.40%	59bps	(26)bps
Net charge-offs	\$ 71	\$ 2	\$ 377	**	(99)%
Net charge-off (recovery) rate	0.08%	—	0.49%	8bps	(49)bps

<i>(Dollars in millions, except as noted)</i>	December 31, 2022	December 31, 2021	Change
Selected period-end data:			
Loans held for investment:			
Commercial and multifamily real estate	\$ 37,453	\$ 35,262	6%
Commercial and industrial	57,223	49,660	15
Total commercial banking	\$ 94,676	\$ 84,922	11
Nonperforming loan rate	0.74%	0.82%	(8)bps
Nonperforming asset rate ⁽⁴⁾	0.74	0.82	(8)
Allowance for credit losses ⁽²⁾	\$ 1,458	\$ 1,167	25%
Allowance coverage ratio	1.54%	1.37%	17bps
Deposits	\$ 40,808	\$ 44,809	(9)%
Loans serviced for others	51,918	48,562	7

⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reductions to the Other category.

⁽²⁾ The provision for losses on unfunded lending commitments is included in the provision for credit losses in our consolidated statements of income and the related reserve is included in other liabilities on our consolidated balance sheets. Our reserve for unfunded lending commitments totaled \$218 million, \$165 million and \$195 million as of December 31, 2022, 2021 and 2020, respectively.

⁽³⁾ Average yield is calculated based on interest income for the period divided by average loans during the period and does not include any allocations, such as funds transfer pricing.

⁽⁴⁾ Nonperforming assets consist of nonperforming loans and other foreclosed assets. The total nonperforming asset rate is calculated based on total nonperforming assets divided by the combined period-end total loans held for investment and other foreclosed assets.

** Not meaningful.

Key factors affecting the results of our Commercial Banking business for 2022 compared to 2021, and changes in financial condition and credit performance between December 31, 2022 and 2021 include the following:

- *Net Interest Income:* Net interest income increased by \$308 million to \$2.5 billion in 2022 primarily driven by higher average loan balances and yields, partially offset by higher funding costs driven by higher market interest rates and mix of deposits.
- *Non-Interest Income:* Non-interest income remained substantially flat at \$1.1 billion in 2022.
- *Provision for Credit Losses:* Provision for credit losses increased by \$934 million to \$415 million in 2022 primarily driven by a net allowance build due to a modestly worse economic outlook and loan growth, compared to a net allowance release in 2021.
- *Non-Interest Expense:* Non-interest expense increased by \$255 million to \$2.1 billion in 2022 primarily driven by continued investment in growth and technology.

Loans Held for Investment:

- Period-end loans held for investment increased by \$9.8 billion to \$94.7 billion as of December 31, 2022 from December 31, 2021 and average loans held for investment increased by \$15.3 billion to \$91.4 billion in 2022 compared to 2021 primarily driven by growth across our loan portfolio.

Deposits:

- Period-end deposits decreased by \$4.0 billion to \$40.8 billion as of December 31, 2022 from December 31, 2021 primarily driven by the transfer of deposits to our retail banking portfolio in the second quarter of 2022.

Net Charge-Off and Nonperforming Metrics:

- The net charge-off rate increased by 8 basis points to 0.08% in 2022 primarily driven by isolated charge offs in our commercial and industrial loan portfolio.
- The nonperforming loan rate decreased by 8 basis points to 0.74% as of December 31, 2022 compared to December 31, 2021 primarily driven by higher ending loan balances.

Other Category

Other includes unallocated amounts related to our centralized Corporate Treasury group activities, such as management of our corporate investment securities portfolio, asset/liability management and oversight of our funds transfer pricing process. Other also includes:

- unallocated corporate revenue and expenses that do not directly support the operations of the business segments or for which the business segments are not considered financially accountable in evaluating their performance, such as certain restructuring charges;
- offsets related to certain line-item reclassifications;
- residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments; and
- foreign exchange-rate fluctuations on foreign currency-denominated balances.

Table 11 summarizes the financial results of our Other category for the periods indicated.

Table 11: Other Category Results

<i>(Dollars in millions)</i>	Year Ended December 31,			Change	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Selected income statement data:					
Net interest loss	\$ (896)	\$ (504)	\$ (149)	78%	**
Non-interest income (loss)	(233)	(244)	398	(5)	**
Total net revenue (loss) ⁽¹⁾	(1,129)	(748)	249	51	**
Provision (benefit) for credit losses	(6)	(2)	3	**	**
Non-interest expense	154	423	700	(64)	(40)%
Loss from continuing operations before income taxes	(1,277)	(1,169)	(454)	9	157
Income tax benefit	(617)	(597)	(378)	3	58
Loss from continuing operations, net of tax	\$ (660)	\$ (572)	\$ (76)	15	**

⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reductions to the Other category.

** Not meaningful.

Loss from continuing operations increased by \$88 million to a loss of \$660 million in 2022 compared to 2021 primarily driven by higher net interest losses due to higher funding costs driven by higher market interest rates, partially offset by insurance recoveries on previously incurred expenses in non-interest expense.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in accordance with U.S. GAAP requires management to make a number of judgments, estimates and assumptions that affect the amount of assets, liabilities, income and expenses on the consolidated financial statements. Understanding our accounting policies and the extent to which we use management judgment and estimates in applying these policies is integral to understanding our financial statements. We provide a summary of our significant accounting policies under “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies.”

We have identified the following accounting estimates as critical because they require significant judgments and assumptions about highly complex and inherently uncertain matters and the use of reasonably different estimates and assumptions could have a material impact on our results of operations or financial condition. Our critical accounting policies and estimates are as follows:

- Loan loss reserves
- Goodwill
- Fair value
- Customer rewards reserve

We evaluate our critical accounting estimates and judgments on an ongoing basis and update them as necessary, based on changing conditions.

Loan Loss Reserves

We maintain an allowance for credit losses that represents management's current estimate of expected credit losses inherent in our credit card, consumer banking and commercial banking loans held for investment portfolios as of each balance sheet date. We also reserve for the uncollectible portion of finance charges and fees related to credit card loan receivables in the allowance for credit losses consistent with the methodology we use to estimate the allowance for credit losses on the principal portion of our credit card loan receivables. We also separately reserve for unfunded lending commitments that are not unconditionally cancellable. We build our allowance for credit losses and reserve for unfunded lending commitments through the provision for credit losses, which is driven by charge-offs, changes in the allowance for credit losses and changes in the reserve for unfunded lending commitments. The allowance for credit losses was \$13.2 billion as of December 31, 2022, compared to \$11.4 billion as of December 31, 2021.

Our allowance for credit losses and reserve for unfunded lending commitments utilize models to derive a quantitative estimate of credit losses that is supplemented with additional qualitative considerations to capture risks and uncertainties not included in the quantitative result. Our estimate of expected credit losses, for all loan and unfunded lending commitments, includes a reasonable and supportable forecast period of one year and then reverts over a one-year period to historical losses at each relevant loss component of the estimate. We use externally produced consensus estimates as inputs for our forward-looking macroeconomic forecast and consider other forecasts and sources of uncertainty to develop the quantitative component. This quantitative result is then supplemented qualitatively by management for economic uncertainty, including the consideration of alternative macroeconomic scenarios, changes and trends in loan portfolios that may not be captured in the quantitative component. These adjustments represent management's judgment of the imprecision and risks inherent in the processes and assumptions used in establishing the allowance for credit losses.

We have an established process, using analytical tools and management judgment, to determine our allowance for credit losses. Significant management judgment is required to determine the relevant information and estimation methods used to arrive at our best estimate of lifetime credit losses. Establishing the allowance on a quarterly basis involves evaluating and forecasting both credit and macroeconomic variables. The macroeconomic forecast used to inform both quantitative and qualitative components of our allowance for credit losses estimate is sensitive to variables that may impact borrowers' ability to pay, such as the U.S. Unemployment Rate, and the U.S. Real Gross Domestic Product ("U.S. Real GDP") Rate assumptions. Our December 31, 2022 allowance assumes that the average unemployment rate gradually increases to approximately 5.0% by the fourth quarter of 2023 and annualized U.S. Real GDP decreases 0.3% in 2023.

In addition to macroeconomic factors, many credit factors inform our allowance for credit losses, including, but not limited to, historical loss and recovery experience, recent trends in delinquencies and charge-offs, risk ratings, the impact of bankruptcy filings, the value of collateral underlying secured loans, account seasoning, changes in our credit evaluation, underwriting and collection management policies, seasonality, credit bureau scores, current general economic conditions, changes in the legal and regulatory environment and uncertainties in forecasting and modeling techniques used in estimating our allowance for credit losses.

We have a governance framework supported by processes and controls intended to ensure that our estimate of the allowance for credit losses is appropriate. Our governance framework provides for oversight of methods, models, qualitative adjustments, process controls and results. At least quarterly, representatives from the Finance and Risk Management organizations review and assess our allowance methodologies, key assumptions and the appropriateness of the allowance for credit losses. Groups independent of our estimation functions participate in the review and validation process. Tasks performed by these groups include periodic review of the rationale for and quantification of inputs requiring judgment as well as adjustments to results.

We have a model policy, established by an independent Model Risk Office, which governs the validation of models and related supporting documentation to ensure the appropriate use of models for estimating credit losses. The Model Risk Office validates all models and requires ongoing monitoring of their performance.

In addition to the allowance for credit losses, on a quarterly basis, we review and assess our estimate of expected losses related to unfunded lending commitments that are not unconditionally cancellable which are generally in our Commercial Banking business. The factors impacting our assessment generally align with those considered in our evaluation of the allowance for credit losses for the Commercial Banking business. The reserve for losses on unfunded lending commitments is included in other liabilities on the consolidated balance sheets and changes to it are recorded through the provision for credit losses in the consolidated statements of income.

Although we examine a variety of externally available data, as well as our internal loan performance data, to determine our allowance for credit losses and reserve for unfunded lending commitments, our estimation process is subject to risks and uncertainties, including a reliance on historical loss and trend information that may not be representative of current conditions and indicative of future performance as well as economic forecasts that may not align with actual future economic conditions. Accordingly, our actual credit loss experience may not be in line with our expectations. We provide additional information on the methodologies and key assumptions used in determining our allowance for credit losses for each of our loan portfolio segments in “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies.” We provide information on the components of our allowance, disaggregated by operating segment, and changes in our allowance in “Part II—Item 8. Financial Statements and Supplementary Data—Note 4—Allowance for Credit Losses and Reserve for Unfunded Lending Commitments.”

Goodwill

Goodwill represents the excess of the fair value of the consideration transferred, plus the fair value of any non-controlling interests in the acquiree, over the fair value of the net assets acquired and liabilities assumed as of the acquisition date.

Goodwill totaled \$14.8 billion as of both December 31, 2022 and 2021. We did not recognize any goodwill impairment in 2022 or 2021. See “Part II—Item 8. Financial Statements and Supplementary Data—Note 6—Goodwill and Other Intangible Assets” for additional information.

We perform our goodwill impairment test annually on October 1 at a reporting unit level. We are also required to test goodwill for impairment whenever events or circumstances indicate it is more-likely-than-not that an impairment may have occurred. An impairment of a reporting unit’s goodwill is determined based on the amount by which the reporting unit’s carrying value exceeds its fair value, limited to the amount of goodwill allocated to the reporting unit. We have four reporting units: Credit Card, Auto Finance, Other Consumer Banking and Commercial Banking.

For the purpose of our goodwill impairment testing, we calculate the carrying amount of a reporting unit using an allocated capital approach based on each reporting unit’s specific regulatory capital requirements, economic capital requirements and underlying risks. The carrying amount for a reporting unit is the sum of its respective capital requirements, goodwill and other intangibles balances. Known future capital needs, such as dividends, share buybacks or other strategic initiatives, are assumed distributed to equity holders in future periods and are not allocated to the reporting units or the Other category.

Determining the fair value of a reporting unit is a subjective process that requires the use of estimates and the exercise of significant judgment. We calculate the fair value of our reporting units using a discounted cash flow (“DCF”) calculation, a form of the income approach. This DCF calculation uses projected cash flows based on each reporting unit’s internal forecast and the perpetuity growth method to calculate terminal values. Our DCF calculation requires management to make estimates about future loan, deposit and revenue growth, as well as credit losses and capital rates. These cash flows and terminal values are then discounted using discount rates based on our external cost of capital with adjustments for the risk inherent in each reporting unit. Discount rates used for our reporting units ranged from 8.4% to 12.2%, and we applied a terminal year long-term growth rate of 3.7% to all reporting units. The reasonableness of our DCF calculation is assessed by reference to a market-based approach using comparable market multiples and recent market transactions where available. The results of the 2022 annual impairment test for the reporting units indicated that the estimated fair values of the Commercial Banking, Credit Card, Auto Finance, and Other Consumer Banking reporting units exceeded their carrying amounts by between 17% and 72%.

Assumptions used in estimating the fair value of a reporting unit are judgmental and inherently uncertain. A change in the economic conditions of a reporting unit, such as declines in business performance as a result of industry or macroeconomic trends or changes in our strategy, adverse impacts to loan or deposit growth trends, decreases in revenue, increases in expenses, increases in credit losses, increases in capital requirements, deterioration of market conditions, declines in long-term growth expectations, adverse impacts of regulatory or legislative changes or increases in the estimated cost of capital, including if these conditions are merely forecasted to occur in future periods, could cause the estimated fair values of our reporting units to decline in the future, and increase the risk of a goodwill impairment in a future period.

We have a governance framework supported by processes and controls intended to ensure that the accounting and disclosure for goodwill is appropriate. Our governance framework provides for oversight of assumptions, forecast inputs, methods, process controls and results.

Fair Value

Fair value, also referred to as an exit price, is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value accounting guidance provides a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on the markets in which the assets or liabilities trade and whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. The fair value measurement of a financial asset or liability is assigned a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are described below:

Level 1: Valuation is based on quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Valuation is based on observable market-based inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Valuation is generated from techniques that use significant assumptions not observable in the market. Valuation techniques include pricing models, discounted cash flow methodologies or similar techniques.

The degree of management judgment involved in determining the fair value of a financial instrument is dependent upon the availability of quoted prices in active markets or observable market parameters. When quoted prices and observable data in active markets are not fully available, management judgment is necessary to estimate fair value. Changes in market conditions, such as reduced liquidity in the capital markets or changes in secondary market activities, may reduce the availability and reliability of quoted prices or observable data used to determine fair value.

We have developed policies and procedures to determine when markets for our financial assets and liabilities are inactive if the level and volume of activity has declined significantly relative to normal conditions. If markets are determined to be inactive, it may be appropriate to adjust price quotes received. When significant adjustments are required to price quotes or inputs, it may be appropriate to utilize an estimate based primarily on unobservable inputs.

Significant judgment may be required to determine whether certain financial instruments measured at fair value are classified as Level 2 or Level 3. In making this determination, we consider all available information that market participants use to measure the fair value of the financial instrument, including observable market data, indications of market liquidity and orderliness, and our understanding of the valuation techniques and significant inputs used. Based upon the specific facts and circumstances of each instrument or instrument category, judgments are made regarding the significance of the Level 3 inputs to the instruments' fair value measurement in its entirety. If Level 3 inputs are considered significant, the instrument is classified as Level 3. The process for determining fair value using unobservable inputs is generally more subjective and involves a high degree of management judgment and assumptions. We discuss changes in the valuation inputs and assumptions used in determining the fair value of our financial instruments, including the extent to which we have relied on significant unobservable inputs to estimate fair value and our process for corroborating these inputs, in "Part II—Item 8. Financial Statements and Supplementary Data—Note 16—Fair Value Measurement."

We have a governance framework and a number of key controls that are intended to ensure that our fair value measurements are appropriate and reliable. Our governance framework provides for independent oversight and segregation of duties. Our control processes include review and approval of new transaction types, price verification, and review of valuation judgments, methods, models, process controls and results.

Groups independent of our trading and investing functions participate in the review and validation process. Tasks performed by these groups include periodic verification of fair value measurements to determine if assigned fair values are reasonable, including comparing prices from vendor pricing services to other available market information.

Our Fair Value Committee ("FVC"), which includes representation from business areas, Risk Management and Finance, provides guidance and oversight to ensure an appropriate valuation control environment. The FVC regularly reviews and approves our fair valuations to ensure that our valuation practices are consistent with industry standards and adhere to regulatory and accounting guidance.

We have a model policy, established by an independent Model Risk Office, which governs the validation of models and related supporting documentation to ensure the appropriate use of models for pricing and fair value measurements. The Model Risk Office validates all models and requires ongoing monitoring of their performance.

The fair value governance process is set up in a manner that allows the Chairperson of the FVC to escalate valuation disputes that cannot be resolved by the FVC to a more senior committee called the Valuations Advisory Committee (“VAC”) for resolution. The VAC is chaired by the Chief Financial Officer and includes other members of senior management. . There were no disputes escalated to the VAC for the years ended December 31, 2022 and 2021.

Customer Rewards Reserve

We offer products, primarily credit cards, which include programs that allow members to earn rewards based on account activity that can be redeemed for cash (primarily in the form of statement credits), gift cards, travel, or covering eligible charges. The amount of rewards that a customer earns varies based on the terms and conditions of the rewards program and product. The majority of our rewards do not expire and there is no limit on the amount of rewards an eligible card member can earn. Customer rewards costs, which we generally record as an offset to interchange income, are driven by various factors such as card member purchase volume, the terms and conditions of the rewards program and rewards redemption cost. We establish a customer rewards reserve that reflects management’s judgment regarding rewards earned that are expected to be redeemed and the estimated redemption cost.

We use financial models to estimate ultimate redemption rates of rewards earned to date by current card members based on historical redemption trends, current enrollee redemption behavior, card product type, year of program enrollment, enrollment tenure and card spend levels. Our current assumption is that the vast majority of all rewards earned will eventually be redeemed. We use the weighted-average redemption cost during the previous twelve months, adjusted as appropriate for recent changes in redemption costs, including changes related to the mix of rewards redeemed, to estimate future redemption costs. We continually evaluate our reserve and assumptions based on developments in redemption patterns, changes to the terms and conditions of the rewards program and other factors. While the rewards liability is sensitive to changes in assumptions for redemption rates and costs and involves management judgment, we believe portfolio characteristics and historical performance are the best indication of future reward redemption behavior and are the primary basis for our estimate. We recognized customer rewards expense of \$7.6 billion, \$6.4 billion and \$4.9 billion in 2022, 2021 and 2020, respectively. Our customer rewards reserve, which is included in other liabilities on our consolidated balance sheets, totaled \$6.8 billion and \$6.2 billion as of December 31, 2022 and 2021, respectively.

We have a governance framework supported by processes and controls that are intended to ensure that our rewards liability estimate is appropriate and reliable. Our governance framework provides for oversight of assumptions, inputs, methods, process controls and results. Additional controls are performed to ensure all underlying data used to derive the rewards liability is complete and accurate.

ACCOUNTING CHANGES AND DEVELOPMENTS

Accounting Standards Issued but Not Adopted as of December 31, 2022

Standard	Guidance	Adoption Timing and Financial Statement Impacts
TDR and Vintage Disclosures ASU No. 2022-02, Financial Instruments - Credit Losses (Topic 326): <i>Troubled Debt Restructuring and Vintage Disclosures</i> <i>Issued March 2022</i>	The amendments in this update eliminate the accounting guidance for Troubled Debt Restructurings, while enhancing disclosure requirements for certain loan refinancings and restructurings for borrowers experiencing financial difficulty. The amendments also require public entities to disclose current-period gross charge offs by year of origination for loans held for investment.	This ASU became effective for us on January 1, 2023. We adopted this guidance in the first quarter of 2023 using the modified retrospective method. Adoption of this standard did not have a material impact on our consolidated financial statements.

CAPITAL MANAGEMENT

The level and composition of our capital are determined by multiple factors, including our consolidated regulatory capital requirements as described in more detail below and internal risk-based capital assessments such as internal stress testing. The level and composition of our capital may also be influenced by rating agency guidelines, subsidiary capital requirements, business environment, conditions in the financial markets and assessments of potential future losses due to adverse changes in our business and market environments.

Capital Standards and Prompt Corrective Action

The Company and the Bank are subject to the Basel III Capital Rules. The Basel III Capital Rules implement certain capital requirements published by the Basel Committee, along with certain provisions of the Dodd-Frank Act and other capital provisions.

As a BHC with total consolidated assets of at least \$250 billion but less than \$700 billion and not exceeding any of the applicable risk-based thresholds, the Company is a Category III institution under the Basel III Capital Rules.

The Bank, as a subsidiary of a Category III institution, is a Category III bank. Moreover, the Bank, as an insured depository institution, is subject to PCA capital regulations.

Basel III and United States Capital Rules

Under the Basel III Capital Rules, we must maintain a minimum CET1 capital ratio of 4.5%, a Tier 1 capital ratio of 6.0% and a total capital ratio of 8.0%, in each case in relation to risk-weighted assets. In addition, we must maintain a minimum leverage ratio of 4.0% and a minimum supplementary leverage ratio of 3.0%. We are also subject to the capital conservation buffer requirement and countercyclical capital buffer requirement as described below. Our capital and leverage ratios are calculated based on the Basel III standardized approach framework.

We have elected to exclude certain elements of AOCI from our regulatory capital as permitted for a Category III institution.

G-SIBs that are based in the U.S. are subject to an additional CET1 capital requirement known as the “G-SIB Surcharge.” We are not a G-SIB based on the most recent available data and thus we are not subject to a G-SIB Surcharge.

Stress Capital Buffer Rule

The Basel III Capital Rules require banking institutions to maintain a capital conservation buffer, composed of CET1 capital, above the regulatory minimum ratios. Under the Stress Capital Buffer Rule, the Company’s “standardized approach capital conservation buffer” includes its stress capital buffer requirement (as described below), any G-SIB Surcharge (which is not applicable to us) and the countercyclical capital buffer requirement (which is currently set at 0%). Any determination to increase the countercyclical capital buffer generally would be effective twelve months after the announcement of such an increase, unless the Federal Banking Agencies set an earlier effective date.

The Company’s stress capital buffer requirement is recalibrated every year based on the Company’s supervisory stress test results. In particular, the Company’s stress capital buffer requirement equals, subject to a floor of 2.5%, the sum of (i) the difference between the Company’s starting CET1 capital ratio and its lowest projected CET1 capital ratio under the severely adverse scenario of the Federal Reserve’s supervisory stress test plus (ii) the ratio of the Company’s projected four quarters of common stock dividends (for the fourth to seventh quarters of the planning horizon) to the projected risk-weighted assets for the quarter in which the Company’s projected CET1 capital ratio reaches its minimum under the supervisory stress test.

Based on the Company’s 2021 supervisory stress test results, the Company’s stress capital buffer requirement for the period beginning on October 1, 2021 through September 30, 2022 was 2.5%. Therefore, the Company’s minimum capital requirements plus the standardized approach capital conservation buffer for CET1 capital, Tier 1 capital and total capital ratios under the stress capital buffer framework were 7.0%, 8.5% and 10.5%, respectively, for the period from October 1, 2021 through September 30, 2022.

Based on the Company’s 2022 supervisory stress test results, the Company’s stress capital buffer requirement for the period beginning on October 1, 2022 through September 30, 2023 is 3.1%. Therefore, the Company’s minimum capital requirements plus the standardized approach capital conservation buffer for CET1 capital, Tier 1 capital and total capital ratios under the

stress capital buffer framework are 7.6%, 9.1% and 11.1%, respectively, for the period from October 1, 2022 through September 30, 2023.

The Stress Capital Buffer Rule does not apply to the Bank. The capital conservation buffer for the Bank continues to be fixed at 2.5%. Accordingly, the Bank’s minimum capital requirements plus its capital conservation buffer for CET1 capital, Tier 1 capital and total capital ratios are 7.0%, 8.5% and 10.5% respectively.

If the Company or the Bank fails to maintain its capital ratios above the minimum capital requirements plus the applicable capital conservation buffer requirements, it will face increasingly strict automatic limitations on capital distributions and discretionary bonus payments to certain executive officers.

As of December 31, 2022 and 2021, respectively, the Company and the Bank each exceeded the minimum capital requirements and the capital conservation buffer requirements applicable to them, and the Company and the Bank were each “well-capitalized.” The “well-capitalized” standards applicable to the Company are established in the Federal Reserve’s regulations, and the “well-capitalized” standards applicable to the Bank are established in the OCC’s PCA capital requirements.

Market Risk Rule

The “Market Risk Rule” supplements the Basel III Capital Rules by requiring institutions subject to the rule to adjust their risk-based capital ratios to reflect the market risk in their trading book. The Market Risk Rule generally applies to institutions with aggregate trading assets and liabilities equal to 10% or more of total assets or \$1 billion or more. As of December 31, 2022, the Company and CONA are subject to the Market Risk Rule. See “Market Risk Profile” below for additional information.

CECL Transition Rule

The Federal Banking Agencies adopted the CECL Transition Rule that provides banking institutions an optional five-year transition period to phase in the impact of the CECL standard on their regulatory capital, the CECL Transition Election. We adopted the CECL standard (for accounting purposes) as of January 1, 2020, and made the CECL Transition Election (for regulatory capital purposes) in the first quarter of 2020. Therefore, the applicable amounts presented in this Report reflect such election.

Pursuant to the CECL Transition Rule, a banking institution could elect to delay the estimated impact of adopting CECL on its regulatory capital through December 31, 2021 and then phase in the estimated cumulative impact from January 1, 2022 through December 31, 2024. For the “day 2” ongoing impact of CECL during the initial two years, the Federal Banking Agencies used a uniform “scaling factor” of 25% as an approximation of the increase in the allowance under the CECL standard compared to the prior incurred loss methodology. Accordingly, from January 1, 2020 through December 31, 2021, electing banking institutions were permitted to add back to their regulatory capital an amount equal to the sum of the after-tax “day 1” CECL adoption impact and 25% of the increase in the allowance since the adoption of the CECL standard. From January 1, 2022 through December 31, 2024, the after-tax “day 1” CECL adoption impact and the cumulative “day 2” ongoing impact are being phased in to regulatory capital at 25% per year. The following table summarizes the capital impact delay and phase in period on our regulatory capital from years 2020 to 2025.

	Capital Impact Delayed		Phase In Period			
	2020	2021	2022	2023	2024	2025
“Day 1” CECL adoption impact	Capital impact delayed to 2022					
Cumulative “day 2” ongoing impact	25% scaling factor as an approximation of the increase in allowance under CECL		25% Phased In	50% Phased In	75% Phased In	Fully Phased In

As of December 31, 2021, we added back an aggregate amount of \$2.4 billion to our regulatory capital pursuant to the CECL Transition Rule. Consistent with the rule, we phased in 25% of this amount, or \$599 million, on January 1, 2022, leaving \$1.8 billion to be phased in over 2023-2025. As of December 31, 2022, the Company’s CET1 capital ratio, reflecting the CECL Transition Rule, was 12.5% and would have been 12.0% excluding the impact of the CECL Transition Rule (or “on a fully phased-in basis”).

For the description of the regulatory capital rules to which we are subject, see “Part I—Item 1. Business—Supervision and Regulation.”

Table 12 provides a comparison of our regulatory capital ratios under the Basel III standardized approach, the regulatory minimum capital adequacy ratios and the applicable well-capitalized standards as of December 31, 2022 and 2021.

Table 12: Capital Ratios Under Basel III⁽¹⁾

	December 31, 2022			December 31, 2021		
	Ratio	Minimum Capital Adequacy	Well-Capitalized	Ratio	Minimum Capital Adequacy	Well-Capitalized
Capital One Financial Corp:						
Common equity Tier 1 capital ⁽²⁾	12.5%	4.5%	N/A	13.1%	4.5%	N/A
Tier 1 capital ⁽³⁾	13.9	6.0	6.0%	14.5	6.0	6.0%
Total capital ⁽⁴⁾	15.8	8.0	10.0	16.9	8.0	10.0
Tier 1 leverage ⁽⁵⁾	11.1	4.0	N/A	11.6	4.0	N/A
Supplementary leverage ⁽⁶⁾	9.5	3.0	N/A	9.9	3.0	N/A
CONA:						
Common equity Tier 1 capital ⁽²⁾	13.1	4.5	6.5	11.1	4.5	6.5
Tier 1 capital ⁽³⁾	13.1	6.0	8.0	11.1	6.0	8.0
Total capital ⁽⁴⁾	14.4	8.0	10.0	12.2	8.0	10.0
Tier 1 leverage ⁽⁵⁾	10.5	4.0	5.0	7.4	4.0	5.0
Supplementary leverage ⁽⁶⁾	9.0	3.0	N/A	6.6	3.0	N/A

⁽¹⁾ Capital requirements that are not applicable are denoted by “N/A.”

⁽²⁾ Common equity Tier 1 capital ratio is a regulatory capital measure calculated based on common equity Tier 1 capital divided by risk-weighted assets.

⁽³⁾ Tier 1 capital ratio is a regulatory capital measure calculated based on Tier 1 capital divided by risk-weighted assets.

⁽⁴⁾ Total capital ratio is a regulatory capital measure calculated based on total capital divided by risk-weighted assets.

⁽⁵⁾ Tier 1 leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by adjusted average assets.

⁽⁶⁾ Supplementary leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by total leverage exposure.

On October 1, 2022, COBNA merged with and into CONA, with CONA as the surviving entity. The capital ratios of COBNA immediately prior to the Bank Merger were higher than those of CONA, therefore increasing the capital ratios of CONA immediately after the Bank Merger and as of December 31, 2022. See “Part I—Item 1. Business—Overview” of this Report for additional information on the Bank Merger.

Table 13 presents regulatory capital under the Basel III standardized approach and regulatory capital metrics as of December 31, 2022 and 2021.

Table 13: Regulatory Risk-Based Capital Components and Regulatory Capital Metrics

<i>(Dollars in millions)</i>	December 31, 2022	December 31, 2021
Regulatory capital under Basel III standardized approach		
Common equity excluding AOCI	\$ 59,450	\$ 58,206
Adjustments and deductions:		
AOCI, net of tax ⁽¹⁾	(17)	(23)
Goodwill, net of related deferred tax liabilities	(14,540)	(14,562)
Other intangible and deferred tax assets, net of deferred tax liabilities	(162)	(120)
Common equity Tier 1 capital	44,731	43,501
Tier 1 capital instruments	4,845	4,845
Tier 1 capital	49,576	48,346
Tier 2 capital instruments	2,585	3,532
Qualifying allowance for credit losses	4,553	4,211
Tier 2 capital	7,138	7,743
Total capital	<u>\$ 56,714</u>	<u>\$ 56,089</u>
Regulatory capital metrics		
Risk-weighted assets	\$ 357,920	\$ 332,673
Adjusted average assets	444,704	415,141
Total leverage exposure	522,136	486,405

⁽¹⁾ Excludes certain components of AOCI in accordance with rules applicable to Category III institutions. See “Part I—Item 1. Business—Supervision and Regulation” in this Report.

Capital Planning and Regulatory Stress Testing

In January 2022, our Board of Directors authorized the repurchase of up to \$5.0 billion of shares of our common stock. In April 2022, our Board of Directors authorized the repurchase of up to an additional \$5.0 billion of shares of our common stock. For the year ended December 31, 2022, we repurchased \$4.8 billion of shares of our common stock.

On June 23, 2022, the Federal Reserve released the supervisory stress test results for the 2022 CCAR cycle. Based on the Company’s 2022 supervisory stress test results, the Company’s stress capital buffer requirement for the period beginning on October 1, 2022 through September 30, 2023 is 3.1%. Therefore, the Company’s minimum capital requirements plus the standardized approach capital conservation buffer for CET1 capital, Tier 1 capital and total capital ratios under the stress capital buffer framework are 7.6%, 9.1% and 11.1%, respectively, for the period from October 1, 2022 through September 30, 2023.

For the description of the regulatory capital planning rules and stress testing requirements to which we are subject, see “Part I—Item 1. Business—Supervision and Regulation.”

Dividend Policy and Stock Purchases

For the year ended December 31, 2022, we declared and paid common stock dividends of \$954 million, or \$2.40 per share, and preferred stock dividends of \$228 million. The following table summarizes the dividends paid per share on our various preferred stock series in each quarter of 2022.

Table 14: Preferred Stock Dividends Paid Per Share

Series	Description	Issuance Date	Per Annum Dividend Rate	Dividend Frequency	2022			
					Q4	Q3	Q2	Q1
Series I	5.000% Non-Cumulative	September 11, 2019	5.000%	Quarterly	\$12.50	\$12.50	\$12.50	\$12.50
Series J	4.800% Non-Cumulative	January 31, 2020	4.800	Quarterly	12.00	12.00	12.00	12.00
Series K	4.625% Non-Cumulative	September 17, 2020	4.625	Quarterly	11.56	11.56	11.56	11.56
Series L	4.375% Non-Cumulative	May 4, 2021	4.375	Quarterly	10.94	10.94	10.94	10.94
Series M	3.950% Fixed Rate Reset Non-Cumulative	June 10, 2021	3.950% through 8/31/2026; resets 9/1/2026 and every subsequent 5 year anniversary at 5-Year Treasury Rate +3.157%	Quarterly	9.88	9.88	9.88	9.88
Series N	4.250% Non-Cumulative	July 29, 2021	4.250	Quarterly	10.63	10.63	10.63	10.63

The declaration and payment of dividends to our stockholders, as well as the amount thereof, are subject to the discretion of our Board of Directors and depend upon our results of operations, financial condition, capital levels, cash requirements, future prospects, regulatory requirements and other factors deemed relevant by the Board of Directors. As a BHC, our ability to pay dividends is largely dependent upon the receipt of dividends or other payments from our subsidiaries. The Bank is subject to regulatory restrictions that limit its ability to transfer funds to our BHC. As of December 31, 2022, funds available for dividend payments from the Bank were \$3.2 billion. There can be no assurance that we will declare and pay any dividends to stockholders.

In January 2022, our Board of Directors authorized the repurchase of up to \$5.0 billion of shares of our common stock. In April 2022, our Board of Directors authorized the repurchase of up to an additional \$5.0 billion of shares of our common stock. For the year ended December 31, 2022, we repurchased \$4.8 billion of shares of our common stock.

The timing and exact amount of any future common stock repurchases will depend on various factors, including regulatory approval, market conditions, opportunities for growth, our capital position and the amount of retained earnings. The Board authorized stock repurchase program does not include specific price targets, may be executed through open market purchases, tender offers, or privately negotiated transactions, including utilizing Rule 10b5-1 programs, and may be suspended at any time. For additional information on dividends and stock repurchases, see “Capital Management—Capital Planning and Regulatory Stress Testing” and “Part I—Item 1. Business—Supervision and Regulation—Dividends, Stock Repurchases and Transfers of Funds.”

RISK MANAGEMENT

Risk Management Framework

Our Framework (sets consistent expectations for risk management across the Company. It also sets expectations for our “Three Lines of Defense” model, which defines the roles, responsibilities and accountabilities for taking and managing risk across the Company. Accountability for overseeing an effective Framework resides with our Board of Directors either directly or through its committees.

The Framework also sets expectations for our “Three Lines of Defense” model, which defines the roles, responsibilities and accountabilities for taking and managing risk across the Company.

	First Line Identifies and Owns Risk	Second Line Advises & Challenges First Line	Third Line Provides Independent Assurance
Definition	Business areas that are accountable for risk and responsible for: i) generating revenue or reducing expenses; ii) supporting the business to provide products or services to customers; or iii) providing technology services for the first line.	Independent Risk Management (“IRM”) and Support Functions (e.g., Human Resources, Accounting, Legal) that provide support services to the Company.	Internal Audit and Credit Review
Key Responsibilities	Identify, assess, measure, monitor, control, and report the risks associated with their business.	Independent Risk Management (IRM): Independently oversees and assesses risk taking activities for the first line of defense. Support Functions: Centers of specialized expertise that provide support services to the enterprise.	Provides independent and objective assurance to the Board of Directors and senior management that that systems and governance processes are designed and working as intended.

Our Framework sets consistent expectations for risk management across the Company and consists of the following nine elements:



Governance and Accountability

This element of the Framework sets the foundation for the methods for governing risk taking and the interactions within and among our three lines of defense.

We established a risk governance structure and accountabilities to effectively and consistently oversee the management of risks across the Company. Our Board of Directors, Chief Executive Officer and management establish the tone at the top regarding the culture of the Company, including management of risk. Management reinforces expectations at the various levels of the organization.

Strategy and Risk Alignment

Our strategy is informed by and aligned with risk appetite, from development to execution. The Chief Executive Officer develops the strategy with input from the first, second, and third lines of defense, as well as the Board of Directors. The strategic planning process considers relevant changes to the Company’s overall risk profile.

Our Board of Directors approves a Risk Appetite Statement for the Company to set forth the high-level principles that govern risk taking at the Company. The Risk Appetite Statement defines the Board of Directors’ tolerance for certain risk outcomes at an enterprise level and enables senior management to manage and report within these boundaries. This Risk Appetite Statement is also supported by risk category specific risk appetite statements as well as metrics and, where appropriate, Board Limits and Board Notification Thresholds.

Risk Identification

The first line of defense and certain Support Functions identify new and emerging risks, including concentration of risk, across the relevant risk categories associated with their business activities and objectives, in consultation with IRM. Risk identification also must be informed by major changes in infrastructure or organization, introduction of new products and services, acquisitions of businesses, or substantial changes in the internal or external environment.

IRM and certain Support Functions, where appropriate, provide effective challenge in the risk identification process. IRM is also responsible for identifying our material aggregate risks on an ongoing basis.

Assessment, Measurement and Response

Management assesses risks associated with our activities. Risks identified are assessed to understand the severity of each risk and likelihood of occurrence under both normal and stressful conditions. Risk severity is measured through modeling and other quantitative estimation approaches, as well as qualitative approaches, based on management judgment. As part of the risk assessment process, the first and second lines of defense also evaluate the effectiveness of the existing control environment and mitigation strategies.

Management determines the appropriate risk response. Risks may be mitigated or accepted. Actions taken to respond to the risk include implementing new controls, enhancing existing controls, developing additional mitigation strategies to reduce the impact of the risk, and/or monitoring the risk.

Monitoring and Testing

Management periodically monitors risks to evaluate and measure how the risk is affecting our strategy and business objectives, in alignment with risk appetite, including established concentration risk limits. The scope and frequency of monitoring activities depends on the results of relevant risk assessments, as well as specific business risk operations and activities.

The first line of defense is required to evaluate the effectiveness of risk management practices and controls through testing and other activities. IRM and Support Functions, as appropriate, assess the first line of defense's evaluation of risk management, which may include conducting effective challenge, performing independent monitoring, or conducting risk or control validations. The third line of defense provides independent assurance for first and second line risk management practices and controls.

Aggregation, Reporting and Escalation

Risk aggregation supports strategic decision making and risk management practices through collectively reporting risks across different levels of the Company and providing a comprehensive view of performance against risk appetite. Capital One's risk aggregation processes are designed to aggregate risk information from lower levels of the business hierarchy to high levels and to aggregate risk information to determine material risk themes.

Material risks, new or emerging risks, aggregate risks, risk appetite metrics and other measures across all risk categories are reported to the appropriate governance forum no less than quarterly. Material risks are reported to the Board of Directors and senior management committees no less than quarterly.

Capital and Liquidity Management (including Stress Testing)

Our capital management processes are linked to its risk management practices, including the enterprise-wide identification, assessment and measurement of risks to ensure that all relevant risks are incorporated in the assessment of the Company's capital adequacy. We use identified risks to inform key aspects of the Company's capital planning, including the development of stress scenarios, the assessment of the adequacy of post-stress capital levels, and the appropriateness of potential capital actions considering the Company's capital objectives. We quantify capital needs through stress testing, regulatory capital, economic capital and assessments of market considerations. In assessing its capital adequacy, we identify how and where our material risks are accounted for within the capital planning process. Monitoring and escalation processes exist for key capital thresholds and metrics to continuously monitor capital adequacy.

We manage liquidity risk by applying our Liquidity Adequacy Framework (the "Liquidity Framework"). The Liquidity Framework uses internal and regulatory stress testing and the evaluation of other balance sheet metrics to confirm that we maintain a fortified balance sheet that is resilient to uncertainties that may arise as a consequence of systemic, idiosyncratic, or combined liquidity events.

Risk Data and Enabling Technology

Risk data and technology provides the basis for risk reporting and is used in decision making and to monitor and review changes to our risk profile. There is a core Governance, Risk Management and Compliance system which is used as the system of record for risks, controls, issues and events for our risk categories and supports the analysis, aggregation and reporting capabilities across the categories.

Culture and Talent Management

The Framework must be supported with the right culture, talent and skills to enable effective risk management across the Company.

Every associate at the Company is responsible for risk management; however, associates with specific risk management skills and expertise within the first, second and third lines of defense are critical to execute appropriate risk management across the enterprise.

Risk Categories

We apply our Framework to protect the Company from the major categories of risk that we are exposed to through our business activities. Our seven major categories of risk are:

Major Categories of Risk	
Compliance	The risk to current or anticipated earnings or capital arising from violations of laws, rules or regulations. Compliance risk can also arise from nonconformance with prescribed practices, internal policies and procedures, contractual obligations or ethical standards that reinforce those laws, rules or regulations
Credit	The risk to current or projected financial condition and resilience arising from an obligor's failure to meet the terms of any contract with the Company or otherwise perform as agreed
Liquidity	The risk that the Company will not be able to meet its future financial obligations as they come due, or invest in future asset growth because of an inability to obtain funds at a reasonable price within a reasonable time
Market	The risk that an institution's earnings or the economic value of equity could be adversely impacted by changes in interest rates, foreign exchange rates or other market factors
Operational	The risk of loss, capital impairment, adverse customer experience or reputational impact resulting from failure to comply with policies and procedures, failed internal processes or systems, or from external events
Reputation	The risk to market value, recruitment and retention of talented associates and maintenance of a loyal customer base due to the negative perceptions of our internal and external constituents regarding our business strategies and activities
Strategic	The risk of a material impact on current or anticipated earnings, capital, franchise or enterprise value arising from the Company's competitive and market position and evolving forces in the industry that can affect that position; lack of responsiveness to these conditions; strategic decisions to change the Company's scale, market position or operating model; or, failure to appropriately consider implementation risks inherent in the Company's strategy

We provide an overview of how we manage our seven major categories of risk below.

Compliance Risk Management

We recognize that compliance requirements for financial institutions are increasingly complex and that there are heightened expectations from our regulators and our customers. In response, we continuously evaluate the regulatory environment and proactively adjust our compliance program to fully address these expectations.

Our Compliance Management Program establishes expectations for determining compliance requirements, assessing the risk of new product offerings, creating appropriate controls and training to address requirements, monitoring for control performance, and independently testing for adherence to compliance requirements. The program also establishes regular compliance reporting to senior business leaders, the executive committee and the Board of Directors.

The Chief Compliance Officer is responsible for establishing and overseeing our Compliance Management Program. Business areas incorporate compliance requirements and controls into their business policies, standards, processes and procedures. They regularly monitor and report on the efficacy of their compliance controls and our Compliance team periodically independently tests to validate the effectiveness of business controls.

Credit Risk Management

We recognize that we are exposed to cyclical changes in credit quality. Consequently, we try to ensure our credit portfolio is resilient to economic downturns. Our most important tool in this endeavor is sound underwriting. In unsecured consumer loan underwriting, we generally assume that loans will be subject to an environment in which losses are higher than those prevailing at the time of underwriting. In commercial underwriting, we generally require strong cash flow, collateral, covenants, and guarantees. In addition to sound underwriting, we continually monitor our portfolio and take steps to collect or work out distressed loans.

The Chief Risk Officer, in conjunction with the Consumer and Commercial Chief Credit Officers, is responsible for establishing credit risk policies and procedures, including underwriting and hold guidelines and credit approval authority, and monitoring credit exposure and performance of our lending related transactions. Our Consumer and Commercial Chief Credit Officers are responsible for evaluating the risk implications of credit strategy and the oversight of credit for both the existing portfolio and any new credit investments. They also have formal approval authority for various types and levels of credit decisions, including individual commercial loan transactions. Division Presidents within each segment are responsible for managing the credit risk within their divisions and maintaining processes to control credit risk and comply with credit policies and guidelines. In addition, the Chief Risk Officer establishes policies, delegates approval authority and monitors performance for non-loan credit exposure entered into with financial counterparties or through the purchase of credit sensitive securities in our investment portfolio.

Our credit policies establish standards in five areas: customer selection, underwriting, monitoring, remediation and portfolio management. The standards in each area provide a framework comprising specific objectives and control processes. These standards are supported by detailed policies and procedures for each component of the credit process. Starting with customer selection, our goal is to generally provide credit on terms that generate above hurdle returns. We use a number of quantitative and qualitative factors to manage credit risk, including setting credit risk limits and guidelines for each of our lines of business. We monitor performance relative to these guidelines and report results and any required mitigating actions to appropriate senior management committees and our Board of Directors.

Liquidity Risk Management

We manage liquidity risk by applying our Liquidity Adequacy Framework (the “Liquidity Framework”). The Liquidity Framework uses internal and regulatory stress testing and the evaluation of other balance sheet metrics to confirm that we maintain a fortified balance sheet that is resilient to uncertainties that may arise as a consequence of systemic, idiosyncratic, or combined liquidity events. We continuously monitor market and economic conditions to evaluate emerging stress conditions and to develop appropriate action plans in accordance with our Contingency Funding Plan and our Recovery Plan, which include the Company’s policies, procedures and action plans for managing liquidity stress events. The Liquidity Framework enables us to manage our liquidity risk in accordance with regulatory requirements.

Additionally, the Liquidity Framework establishes governing principles that apply to the management of liquidity risk. We use these principles to monitor, measure and report liquidity risk; to develop funding and investment strategies that enable us to maintain an adequate level of liquidity to support our businesses and satisfy regulatory requirements; and to protect us from a broad range of liquidity events should they arise.

The Chief Risk Officer, in conjunction with the Chief Market and Liquidity Risk Officer, is responsible for the establishment of liquidity risk management policies and standards for governance and monitoring of liquidity risk at a corporate level. We assess liquidity strength by evaluating several different balance sheet metrics under severe stress scenarios to ensure we can withstand significant funding degradation through idiosyncratic, systemic and combined liquidity stress scenarios. Management reports liquidity metrics to appropriate senior management committees and to our Board of Directors no less than quarterly.

We seek to mitigate liquidity risk strategically and tactically. From a strategic perspective, we have acquired and built deposit gathering businesses and actively monitor our funding concentration. From a tactical perspective, we have accumulated a sizable liquidity reserve comprised of cash and cash equivalents, high-quality, unencumbered securities and committed

collateralized credit lines. We also continue to maintain access to secured and unsecured debt markets through regular issuance. This combination of stable and diversified funding sources and our stockpile of liquidity reserves enable us to maintain confidence in our liquidity position.

Market Risk Management

The Chief Financial Officer and the Chief Risk Officer are responsible for the establishment of market risk management policies and standards for the governance and monitoring of market risk at a corporate level. Market risk is inherent from the financial instruments associated with our business operations and activities including loans, deposits, securities, short-term borrowings, long-term debt and derivatives. We manage market risk exposure, which is principally driven by balance sheet interest rate risk, centrally and establish quantitative risk limits to monitor and control our exposure.

We recognize that interest rate and foreign exchange risk is present in our business due to the nature of our assets and liabilities. In addition to using industry accepted techniques to analyze and measure interest rate and foreign exchange risk, we perform sensitivity analysis to identify our risk exposures under a broad range of scenarios. Investment securities and derivatives are the main levers for the management of interest rate risk. In addition, we also use derivatives to manage our foreign exchange risk.

The market risk positions for the Company and the Bank are calculated separately and in aggregate, and analyzed against pre-established limits. Results are reported to the Asset Liability Committee monthly and to the Risk Committee of the Board of Directors no less than quarterly. Management is authorized to utilize financial instruments as outlined in our policy to actively manage market risk exposure.

Operational Risk Management

We recognize the criticality of managing operational risk on both a strategic and day-to-day basis and that there are heightened expectations from our regulators and our customers. We have implemented appropriate operational risk management policies, standards, processes and controls to enable the delivery of high quality and consistent customer experiences and to achieve business objectives in a controlled manner.

The Chief Operational Risk Officer is responsible for establishing and overseeing our Operational Risk Management Program. The program establishes practices for assessing the operational risk profile and executing key control processes for operational risks. These risks include topics such as internal and external fraud, cyber and technology risk, data management, model risk, third party management, and business continuity. Operational Risk Management enforces these practices and delivers reporting of operational risk results to senior business leaders, the executive committee and the Board of Directors.

Reputation Risk Management

We recognize that reputation risk is of particular concern for financial institutions and, increasingly, technology companies, in the current environment. Areas of concern have expanded to include company policies, practices and values and, with the growing use of social and digital platforms, public corporations face a new level of scrutiny and channels for activism and advocacy. The heightened expectations of internal and external stakeholders have made corporate culture, values and conduct pressure points for individuals and advocates voicing concerns or seeking change. We manage both strategic and tactical reputation issues and build our relationships with government officials, media, community and consumer advocates, customers and other constituencies to help strengthen the reputations of both our Company and industry. Our actions include implementing pro-customer practices in our business and serving low to moderate income communities in our market area consistent with a quality bank and an innovative technology leader. The Executive Vice President of External Affairs is responsible for managing our overall reputation risk program. Day-to-day activities are controlled by the frameworks set forth in our Reputation Risk Management Policy and other risk management policies.

Strategic Risk Management

We monitor external market and industry developments to identify potential areas of strategic opportunity or risk. These inform the Company's strategy, which is led by the Chief Executive Officer and other senior executives. The Chief Risk Officer identifies and assesses risks associated with the Company's strategy across all risk categories and monitors these risks throughout the year.

Our Strategic Risk Management Policy, processes and controls encompass an ongoing assessment of risks associated with corporate or line of business specific strategies. These risks are managed through periodic reviews, along with regular updates to senior management and the Board.

CREDIT RISK PROFILE

Our loan portfolio accounts for the substantial majority of our credit risk exposure. Our lending activities are governed under our credit policy and are subject to independent review and approval. Below we provide information about the composition of our loan portfolio, key concentrations and credit performance metrics.

We also engage in certain non-lending activities that may give rise to ongoing credit and counterparty settlement risk, including purchasing securities for our investment securities portfolio, entering into derivative transactions to manage our market risk exposure and to accommodate customers, extending short-term advances on syndication activity including bridge financing transactions we have underwritten, depositing certain operational cash balances in other financial institutions, executing certain foreign exchange transactions and extending customer overdrafts. We provide additional information related to our investment securities portfolio under “Consolidated Balance Sheets Analysis—Investment Securities” and “Part II—Item 8. Financial Statements and Supplementary Data—Note 2—Investment Securities” as well as credit risk related to derivative transactions in “Part II—Item 8. Financial Statements and Supplementary Data—Note 9—Derivative Instruments and Hedging Activities.”

Primary Loan Products

We provide a variety of lending products. Our primary loan products include credit cards, auto loans and commercial lending products.

- *Credit cards:* We originate both prime and subprime credit cards through a variety of channels. Our credit cards generally have variable interest rates. Credit card accounts are primarily underwritten using an automated underwriting system based on predictive models that we have developed. The underwriting criteria, which are customized for individual products and marketing programs, are established based on an analysis of the net present value of expected revenues, expenses and losses, subject to further analysis using a variety of stress conditions. Underwriting decisions are generally based on credit bureau information, including payment history, debt burden and credit scores, such as FICO scores, and on other factors, such as applicant income. We maintain a credit card securitization program and selectively sell charged-off credit card loans.
- *Auto:* We originate both prime and subprime auto loans through a network of auto dealers and direct marketing. Our auto loans generally have fixed interest rates and loan terms of 75 months or less, but can go up to 84 months. Loan size limits are customized by program and are generally less than \$75,000. Similar to credit card accounts, the underwriting criteria are customized for individual products and marketing programs and based on analysis of net present value of expected revenues, expenses and losses, and are subject to maintaining resilience under a variety of stress conditions. Underwriting decisions are generally based on an applicant’s income, estimated net disposable income, and credit bureau information including FICO scores, along with collateral characteristics such as loan-to-value (“LTV”) ratio. We maintain an auto securitization program.
- *Commercial:* We offer a range of commercial lending products, including loans secured by commercial real estate and loans to middle market commercial and industrial companies. Our commercial loans may have a fixed or variable interest rate; however, the majority of our commercial loans have variable rates. Our underwriting standards require an analysis of the borrower’s financial condition and prospects, as well as an assessment of the industry in which the borrower operates. Where relevant, we evaluate and appraise underlying collateral and guarantees. We maintain underwriting guidelines and limits for major types of borrowers and loan products that specify, where applicable, guidelines for debt service coverage, leverage, LTV ratio and standard covenants and conditions. We assign a risk rating and establish a monitoring schedule for loans based on the risk profile of the borrower, industry segment, source of repayment, the underlying collateral and guarantees, if any, and current market conditions. Although we generally retain the commercial loans we underwrite, we may syndicate positions for risk mitigation purposes, including bridge financing transactions we have underwritten. In addition, we originate and service multifamily commercial real estate loans which are sold to government-sponsored enterprises.

Portfolio and Geographic Composition of Loans Held for Investment

Our loan portfolio consists of loans held for investment, including loans held in our consolidated trusts, and loans held for sale. The information presented in this section excludes loans held for sale, which totaled \$203 million and \$5.9 billion as of December 31, 2022 and 2021, respectively.

Table 15 presents the composition of our portfolio of loans held for investment by portfolio segment as of December 31, 2022 and 2021.

Table 15: Portfolio Composition of Loans Held for Investment

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Loans	% of Total	Loans	% of Total
Credit Card:				
Domestic credit card	\$ 131,581	42.1%	\$ 108,723	39.2%
International card businesses	6,149	2.0	6,049	2.2
Total credit card	137,730	44.1	114,772	41.4
Consumer Banking:				
Auto	78,373	25.1	75,779	27.3
Retail banking	1,552	0.5	1,867	0.7
Total consumer banking	79,925	25.6	77,646	28.0
Commercial Banking:				
Commercial and multifamily real estate	37,453	12.0	35,262	12.7
Commercial and industrial	57,223	18.3	49,660	17.9
Total commercial banking	94,676	30.3	84,922	30.6
Total loans held for investment	\$ 312,331	100.0%	\$ 277,340	100.0%

Table 16 presents the maturities of our loans held for investment portfolio as of December 31, 2022.

Table 16: Loan Maturity Schedule

<i>(Dollars in millions)</i>	December 31, 2022				Total
	Due Up to 1 Year	> 1 Year to 5 Years	> 5 Years to 15 Years	> 15 Years	
Fixed rate:					
Credit card ⁽¹⁾	\$ 4,260	\$ 10,268	—	—	\$ 14,528
Consumer banking	985	46,160	\$ 32,185	\$ 176	79,506
Commercial banking	1,020	2,953	6,074	3,303	13,350
Total fixed-rate loans	6,265	59,381	38,259	3,479	107,384
Variable rate:					
Credit card ⁽¹⁾	123,202	—	—	—	123,202
Consumer banking	411	6	2	—	419
Commercial banking	16,250	54,288	10,701	87	81,326
Total variable-rate loans	139,863	54,294	10,703	87	204,947
Total loans	\$ 146,128	\$ 113,675	\$ 48,962	\$ 3,566	\$ 312,331

⁽¹⁾ Due to the revolving nature of credit card loans, we report the majority of our variable-rate credit card loans as due in one year or less. We report fixed-rate credit card loans with introductory rates that expire after a certain period of time as due in one year or less. We assume that the rest of our remaining fixed-rate credit card loans will mature within one to three years.

Geographic Composition

We market our credit card products throughout the United States, the United Kingdom and Canada. Our credit card loan portfolio is geographically diversified due to our product and marketing approach. The table below presents the geographic profile of our credit card loan portfolio as of December 31, 2022 and 2021.

Table 17: Credit Card Portfolio by Geographic Region

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	% of Total	Amount	% of Total
Domestic credit card:				
California	\$ 13,707	10.0%	\$ 11,096	9.7%
Texas	11,202	8.1	9,100	7.9
Florida	9,549	6.9	7,738	6.7
New York	8,366	6.1	6,972	6.1
Pennsylvania	5,425	3.9	4,568	4.0
Illinois	5,260	3.8	4,478	3.9
Ohio	4,662	3.4	3,949	3.4
New Jersey	4,243	3.1	3,520	3.1
Georgia	4,172	3.0	3,397	3.0
Michigan	3,920	2.8	3,306	2.9
Other	61,075	44.4	50,599	44.0
Total domestic credit card	131,581	95.5	108,723	94.7
International card businesses:				
United Kingdom	3,129	2.3	3,034	2.7
Canada	3,020	2.2	3,015	2.6
Total international card businesses	6,149	4.5	6,049	5.3
Total credit card	\$ 137,730	100.0%	\$ 114,772	100.0%

Our auto loan portfolio is geographically diversified in the United States due to our product and marketing approach. Retail banking includes small business loans and other consumer lending products originated through our branch and café network. The table below presents the geographic profile of our auto loan and retail banking portfolios as of December 31, 2022 and 2021.

Table 18: Consumer Banking Portfolio by Geographic Region

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	% of Total	Amount	% of Total
Auto:				
Texas	\$ 9,586	12.0%	\$ 9,292	12.0%
California	9,570	12.0	9,127	11.8
Florida	6,755	8.5	6,443	8.3
Pennsylvania	3,303	4.1	3,139	4.0
Georgia	3,243	4.1	3,283	4.2
Ohio	3,143	3.9	3,053	3.9
Illinois	3,119	3.9	2,899	3.7
New Jersey	2,742	3.4	2,356	3.0
Other	36,912	46.2	36,187	46.7
Total auto	78,373	98.1	75,779	97.6

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	% of Total	Amount	% of Total
Retail banking:				
New York	477	0.6	613	0.8
Texas	333	0.4	383	0.5
Louisiana	283	0.3	363	0.4
New Jersey	122	0.2	149	0.2
Maryland	97	0.1	118	0.2
Virginia	67	0.1	93	0.1
Other	173	0.2	148	0.2
Total retail banking	1,552	1.9	1,867	2.4
Total consumer banking	\$ 79,925	100.0%	\$ 77,646	100.0%

We originate commercial and multifamily real estate loans in most regions of the United States. The table below presents the geographic profile of our commercial real estate portfolio as of December 31, 2022 and 2021.

Table 19: Commercial Real Estate Portfolio by Region

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	% of Total	Amount	% of Total
Geographic concentration:⁽¹⁾				
Northeast	\$ 15,055	40.2%	\$ 16,025	45.4%
South	8,706	23.2	6,210	17.6
Pacific West	5,902	15.7	5,556	15.8
Mid-Atlantic	3,129	8.4	3,105	8.8
Midwest	2,394	6.4	2,863	8.1
Mountain	2,267	6.1	1,503	4.3
Total	\$ 37,453	100.0%	\$ 35,262	100.0%

⁽¹⁾ Geographic concentration is generally determined by the location of the borrower's business or the location of the collateral associated with the loan. Northeast consists of CT, MA, ME, NH, NJ, NY, PA, RI and VT. South consists of AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN and TX. Pacific West consists of AK, CA, HI, OR and WA. Mid-Atlantic consists of DC, DE, MD, VA and WV. Midwest consists of IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD and WI. Mountain consists of AZ, CO, ID, MT, NM, NV, UT and WY.

Commercial Loans by Industry

Table 20 summarizes our commercial loans held for investment portfolio by industry classification as of December 31, 2022 and 2021. Industry classifications below are based on our interpretation of the North American Industry Classification System codes as they pertain to each individual loan.

Table 20: Commercial Loans by Industry

<i>(Percentage of portfolio)</i>	December 31, 2022	December 31, 2021
Industry Classification:		
Real estate	31%	35%
Finance	29	25
Healthcare	8	9
Business services	6	6
Educational services	4	4
Public administration	4	4
Construction and land	3	3
Retail trade	3	3
Oil and gas	2	2
Other	10	9
Total	100%	100%

Credit Risk Measurement

We closely monitor economic conditions and loan performance trends to assess and manage our exposure to credit risk. Trends in delinquency rates are the key credit quality indicator for our credit card and retail banking loan portfolios as changes in delinquency rates can provide an early warning of changes in potential future credit losses. The key indicator we monitor when assessing the credit quality and risk of our auto loan portfolio is borrower credit scores as they provide insight into borrower risk profiles, which give indications of potential future credit losses. The key credit quality indicator for our commercial loan portfolios is our internal risk ratings as we generally classify loans that have been delinquent for an extended period of time and other loans with significant risk of loss as nonperforming. In addition to these credit quality indicators, we also manage and monitor other credit quality metrics such as level of nonperforming loans and net charge-off rates.

We underwrite most consumer loans using proprietary models, which typically include credit bureau data, such as borrower credit scores, application information and, where applicable, collateral and deal structure data. We continuously adjust our management of credit lines and collection strategies based on customer behavior and risk profile changes. We also use borrower credit scores for subprime classification, for competitive benchmarking and, in some cases, to drive product segmentation decisions.

Table 21 provides details on the credit scores of our domestic credit card and auto loan portfolios as of December 31, 2022 and 2021.

Table 21: Credit Score Distribution

<i>(Percentage of portfolio)</i>	December 31, 2022	December 31, 2021
Domestic credit card—Refreshed FICO scores:⁽¹⁾		
Greater than 660	69%	71%
660 or below	31	29
Total	100%	100%

<i>(Percentage of portfolio)</i>	December 31, 2022	December 31, 2021
Auto—At origination FICO scores:⁽²⁾		
Greater than 660	53%	50%
621 - 660	20	20
620 or below	27	30
Total	100%	100%

⁽¹⁾ Percentages represent period-end loans held for investment in each credit score category. Domestic Card credit scores generally represent FICO scores. These scores are obtained from one of the major credit bureaus at origination and are refreshed monthly thereafter. We approximate non-FICO credit scores to comparable FICO scores for consistency purposes. Balances for which no credit score is available or the credit score is invalid are included in the 660 or below category.

⁽²⁾ Percentages represent period-end loans held for investment in each credit score category. Auto credit scores generally represent average FICO scores obtained from three credit bureaus at the time of application and are not refreshed thereafter. Balances for which no credit score is available or the credit score is invalid are included in the 620 or below category.

We present information in the section below on the credit performance of our loan portfolio, including the key metrics we use in tracking changes in the credit quality of our loan portfolio. See “Part II—Item 8. Financial Statements and Supplementary Data—Note 3—Loans” for additional credit quality information and see “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies” for information on our accounting policies for delinquent and nonperforming loans, charge-offs and troubled debt restructurings (“TDRs”) for each of our loan categories.

Delinquency Rates

We consider the entire balance of an account to be delinquent if the minimum required payment is not received by the customer’s due date, measured at each balance sheet date. Our 30+ day delinquency metrics include all loans held for investment that are 30 or more days past due, whereas our 30+ day performing delinquency metrics include all loans held for investment that are 30 or more days past due but are currently classified as performing and accruing interest. The 30+ day delinquency and 30+ day performing delinquency metrics are the same for domestic credit card loans, as we continue to classify these loans as performing until the account is charged off, typically when the account is 180 days past due. See “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies” for information on our policies for classifying loans as nonperforming for each of our loan categories. We provide additional information on our credit quality metrics in “Business Segment Financial Performance.”

Table 22 presents our 30+ day performing delinquency rates and 30+ day delinquency rates of our portfolio of loans held for investment, by portfolio segment, as of December 31, 2022 and 2021.

Table 22: 30+ Day Delinquencies

<i>(Dollars in millions)</i>	December 31, 2022				December 31, 2021			
	30+ Day Performing Delinquencies		30+ Day Delinquencies		30+ Day Performing Delinquencies		30+ Day Delinquencies	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Credit Card:								
Domestic credit card	\$ 4,515	3.43%	\$ 4,515	3.43%	\$ 2,411	2.22%	\$ 2,411	2.22%
International card businesses	248	4.03	254	4.13	207	3.42	213	3.51
Total credit card	<u>4,763</u>	<u>3.46</u>	<u>4,769</u>	<u>3.46</u>	<u>2,618</u>	<u>2.28</u>	<u>2,624</u>	<u>2.29</u>
Consumer Banking:								
Auto	4,402	5.62	4,906	6.26	3,271	4.32	3,558	4.69
Retail banking	16	1.02	34	2.22	36	1.92	60	3.20
Total consumer banking	<u>4,418</u>	<u>5.53</u>	<u>4,940</u>	<u>6.18</u>	<u>3,307</u>	<u>4.26</u>	<u>3,618</u>	<u>4.66</u>
Commercial Banking:								
Commercial and multifamily real estate	1	—	36	0.10	108	0.31	162	0.46
Commercial and industrial	78	0.14	281	0.49	211	0.43	281	0.57
Total commercial banking	<u>79</u>	<u>0.08</u>	<u>317</u>	<u>0.33</u>	<u>319</u>	<u>0.38</u>	<u>443</u>	<u>0.52</u>
Total	<u>\$ 9,260</u>	<u>2.96</u>	<u>\$ 10,026</u>	<u>3.21</u>	<u>\$ 6,244</u>	<u>2.25</u>	<u>\$ 6,685</u>	<u>2.41</u>

⁽¹⁾ Delinquency rates are calculated by dividing delinquency amounts by period-end loans held for investment for each specified loan category.

Table 23 presents our 30+ day delinquent loans, by aging and geography, as of December 31, 2022 and 2021.

Table 23: Aging and Geography of 30+ Day Delinquent Loans

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Delinquency status:				
30 – 59 days	\$ 4,666	1.50%	\$ 3,501	1.26%
60 – 89 days	2,511	0.80	1,656	0.60
≥ 90 days	2,849	0.91	1,528	0.55
Total	<u>\$ 10,026</u>	<u>3.21%</u>	<u>\$ 6,685</u>	<u>2.41%</u>
Geographic region:				
Domestic	\$ 9,772	3.13%	\$ 6,472	2.33%
International	254	0.08	213	0.08
Total	<u>\$ 10,026</u>	<u>3.21%</u>	<u>\$ 6,685</u>	<u>2.41%</u>

⁽¹⁾ Delinquency rates are calculated by dividing delinquency amounts by total period-end loans held for investment.

Table 24 summarizes loans that were 90+ days delinquent as to interest or principal and still accruing interest as of December 31, 2022 and 2021. These loans consist primarily of credit card accounts between 90 days and 179 days past due. As permitted by regulatory guidance issued by the FFIEC, we continue to accrue interest and fees on domestic credit card loans through the date of charge off, which is typically in the period the account becomes 180 days past due.

Table 24: 90+ Day Delinquent Loans Accruing Interest

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Loan category:				
Credit card	\$ 2,240	1.63%	\$ 1,192	1.04%
Commercial banking	—	—	3	—
Total	<u>\$ 2,240</u>	<u>0.72</u>	<u>\$ 1,195</u>	<u>0.43</u>
Geographic region:				
Domestic	\$ 2,135	0.70	\$ 1,113	0.41
International	105	1.71	82	1.36
Total	<u>\$ 2,240</u>	<u>0.72</u>	<u>\$ 1,195</u>	<u>0.43</u>

⁽¹⁾ Delinquency rates are calculated by dividing delinquency amounts by period-end loans held for investment for each specified loan category.

Nonperforming Loans and Nonperforming Assets

Nonperforming loans include loans that have been placed on nonaccrual status. Nonperforming assets consist of nonperforming loans, repossessed assets and other foreclosed assets. See “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies” for information on our policies for classifying loans as nonperforming for each of our loan categories.

Table 25 presents our nonperforming loans, by portfolio segment, and other nonperforming assets as of December 31, 2022 and 2021. We do not classify loans held for sale as nonperforming. We provide additional information on our credit quality metrics in “Business Segment Financial Performance.”

Table 25: Nonperforming Loans and Other Nonperforming Assets⁽¹⁾

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	Rate	Amount	Rate
Nonperforming loans held for investment:⁽²⁾				
Credit Card:				
International card businesses	\$ 9	0.14%	\$ 10	0.16%
Total credit card	<u>9</u>	<u>0.01</u>	<u>10</u>	<u>0.01</u>
Consumer Banking:				
Auto	595	0.76	344	0.45
Retail banking	39	2.49	47	2.51
Total consumer banking	<u>634</u>	<u>0.79</u>	<u>391</u>	<u>0.50</u>
Commercial Banking:				
Commercial and multifamily real estate	271	0.72	383	1.09
Commercial and industrial	430	0.75	316	0.64
Total commercial banking	<u>701</u>	<u>0.74</u>	<u>699</u>	<u>0.82</u>
Total nonperforming loans held for investment ⁽³⁾	<u>1,344</u>	<u>0.43</u>	<u>1,100</u>	<u>0.40</u>
Other nonperforming assets ⁽⁴⁾	61	0.02	41	0.01
Total nonperforming assets	<u>\$ 1,405</u>	<u>0.45</u>	<u>\$ 1,141</u>	<u>0.41</u>

⁽¹⁾ We recognized interest income for loans classified as nonperforming of \$66 million and \$43 million in 2022 and 2021, respectively. Interest income foregone related to nonperforming loans was \$83 million and \$51 million in 2022 and 2021, respectively. Foregone interest income represents the amount of interest income in excess of recognized interest income that would have been recorded during the period for nonperforming loans as of the end of the period had the loans performed according to their contractual terms.

⁽²⁾ Nonperforming loan rates are calculated based on nonperforming loans for each category divided by period-end total loans held for investment for each respective category.

⁽³⁾ Excluding the impact of domestic credit card loans, nonperforming loans as a percentage of total loans held for investment was 0.74% and 0.65% as of December 31, 2022 and 2021, respectively.

⁽⁴⁾ The denominators used in calculating nonperforming asset rates consist of total loans held for investment and other nonperforming assets.

Net Charge-Offs

Net charge-offs consist of the amortized cost basis, excluding accrued interest, of loans held for investment that we determine to be uncollectible, net of recovered amounts. We charge off loans as a reduction to the allowance for credit losses when we determine the loan is uncollectible and record subsequent recoveries of previously charged off amounts as increases to the allowance for credit losses. Uncollectible finance charges and fees are reversed through revenue and certain fraud losses are recorded in other non-interest expense. Generally, costs to recover charged off loans are recorded as collection expenses as incurred and are included in our consolidated statements of income as a component of other non-interest expense. Our charge-off policy for loans varies based on the loan type. See “Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies” for information on our charge-off policy for each of our loan categories.

Table 26 presents our net charge-off amounts and rates, by portfolio segment, in 2022, 2021 and 2020.

Table 26: Net Charge-Offs (Recoveries)

<i>(Dollars in millions)</i>	Year Ended December 31,					
	2022		2021		2020	
	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾	Amount	Rate ⁽¹⁾
Credit Card:						
Domestic credit card	\$ 2,833	2.47%	\$ 1,820	1.90%	\$ 4,002	3.93%
International card businesses	215	3.65	136	1.96	268	3.26
Total credit card	<u>3,048</u>	<u>2.53</u>	<u>1,956</u>	<u>1.90</u>	<u>4,270</u>	<u>3.88</u>
Consumer Banking:						
Auto	784	1.00	200	0.28	522	0.83
Retail banking	70	4.24	76	2.77	56	1.82
Total consumer banking	<u>854</u>	<u>1.06</u>	<u>276</u>	<u>0.37</u>	<u>578</u>	<u>0.87</u>
Commercial Banking:						
Commercial and multifamily real estate	—	—	8	0.03	41	0.13
Commercial and industrial	71	0.13	(6)	(0.01)	336	0.73
Total commercial banking	<u>71</u>	<u>0.08</u>	<u>2</u>	<u>—</u>	<u>377</u>	<u>0.49</u>
Total net charge-offs	<u>\$ 3,973</u>	<u>1.36</u>	<u>\$ 2,234</u>	<u>0.88</u>	<u>\$ 5,225</u>	<u>2.06</u>
Average loans held for investment	<u>\$ 292,238</u>		<u>\$ 252,730</u>		<u>\$ 253,335</u>	

⁽¹⁾ Net charge-off (recovery) rates are calculated by dividing net charge-offs (recoveries) by average loans held for investment for the period for each loan category.

Troubled Debt Restructurings

As part of our loss mitigation efforts, we may provide short-term (one to twelve months) or long-term (greater than twelve months) modifications to a borrower experiencing financial difficulty to improve long-term collectability of the loan and to avoid the need for repossession or foreclosure of collateral.

We consider the impact of all loan modifications, whether or not that modification is classified as a TDR, when estimating the credit quality of our loan portfolio and establishing allowance levels. For our Commercial Banking customers, loan modifications are also considered in the assignment of an internal risk rating.

In our Credit Card business, the majority of our credit card loans modified as TDRs involve reducing the interest rate on the account and placing the customer on a fixed payment plan not exceeding 60 months. The effective interest rate on the loan immediately prior to the loan modification is used as the effective interest rate for purposes of measuring impairment using the present value of expected cash flows.

If the customer does not comply with the modified payment terms, then the credit card loan agreement may revert to its original payment terms, generally resulting in any loan outstanding being reflected in the appropriate delinquency category and charged off in accordance with our standard charge-off policy.

In our Consumer Banking business, the majority of our loans modified as TDRs receive an extension, an interest rate reduction, principal reduction, or a combination of these modifications. In addition, TDRs also occur in connection with bankruptcy of the borrower. In certain bankruptcy discharges, the loan is written down to the collateral value and the charged off amount is reported as principal reduction. Impairment is determined using the present value of expected cash flows or a collateral evaluation for certain auto loans where the collateral value is lower than the amortized cost.

In our Commercial Banking business, the majority of loans modified as TDRs receive an extension, with a portion of these loans receiving an interest rate reduction or a gross balance reduction. The impairment on modified commercial loans is generally determined based on the underlying collateral value.

As part of our response to the COVID-19 pandemic, we offered programs to accommodate customer hardship across our lines of business beginning in the first quarter of 2020. Our COVID-19 programs were designed to be short-term accommodations so that we could provide our customers with prompt relief. Also in response to the COVID-19 pandemic, additional guidance was issued by the Federal Banking Agencies and contained in the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”) which provided banking organizations with TDR relief for loan modifications to certain qualifying borrowers impacted by the COVID-19 pandemic.

While the majority of enrollments in our COVID-19 programs were short-term and would generally not have resulted in TDR classification under our existing policies, some of these modification would have been designated as TDRs without the relief provided by the additional guidance issued by the Federal Banking Agencies and contained in the CARES Act. Therefore, the expiry of the guidance in the CARES Act on January 1, 2022, along with our concurrent cessation in applying the additional guidance issued by the Federal Banking Agencies, drove an increase in reported TDRs for periods ending after December 31, 2021.

Table 27 presents our amortized cost of loans modified in TDRs as of December 31, 2022 and 2021, which excludes loan modifications that do not meet the definition of a TDR.

Table 27: Troubled Debt Restructurings

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	% of Total Modifications	Amount	% of Total Modifications
Credit Card:				
Domestic credit card	\$ 455	17.0%	\$ 390	23.8%
International card businesses	162	6.0	177	10.8
Total credit card	617	23.0	567	34.6
Consumer banking:				
Auto	1,093	40.7	603	36.7
Retail banking	16	0.6	13	0.8
Total consumer banking	1,109	41.3	616	37.5
Commercial banking	959	35.7	457	27.9
Total	\$ 2,685	100.0%	\$ 1,640	100.0%
Status of TDR:				
Performing	\$ 2,109	78.5%	\$ 1,282	78.2%
Nonperforming	576	21.5	358	21.8
Total	\$ 2,685	100.0%	\$ 1,640	100.0%

We provide additional information on modified loans accounted for as a TDR, including the performance of those loans subsequent to modification, in “Part II—Item 8. Financial Statements and Supplementary Data—Note 3—Loans.” We adopted Accounting Standard Update (“ASU”) No. 2022-02 as of January 1, 2023, which eliminates the accounting guidance for TDRs. See “Accounting Changes and Developments” for additional information on this accounting standard.

Allowance for Credit Losses and Reserve for Unfunded Lending Commitments

Our allowance for credit losses represents management's current estimate of expected credit losses over the contractual terms of our loans held for investment as of each balance sheet date. Expected recoveries of amounts previously charged off or expected to be charged off are recognized within the allowance. We also estimate expected credit losses related to unfunded lending commitments that are not unconditionally cancellable. The provision for losses on unfunded lending commitments is included in the provision for credit losses in our consolidated statements of income and the related reserve for unfunded lending commitments is included in other liabilities on our consolidated balance sheets. We provide additional information on the methodologies and key assumptions used in determining our allowance for credit losses in "Part II—Item 8. Financial Statements and Supplementary Data—Note 1—Summary of Significant Accounting Policies."

Table 28 presents changes in our allowance for credit losses and reserve for unfunded lending commitments for 2022 and 2021, and details by portfolio segment for the provision for credit losses, charge-offs and recoveries.

Table 28: Allowance for Credit Losses and Reserve for Unfunded Lending Commitments Activity

	Credit Card			Consumer Banking			Commercial Banking	Total
	Domestic Card	International Card Businesses	Total Credit Card	Auto	Retail Banking	Total Consumer Banking		
<i>(Dollars in millions)</i>								
Allowance for credit losses:								
Balance as of December 31, 2020	\$ 10,650	\$ 541	\$ 11,191	\$ 2,615	\$ 100	\$ 2,715	\$ 1,658	\$ 15,564
Charge-offs	(3,138)	(343)	(3,481)	(1,118)	(93)	(1,211)	(48)	(4,740)
Recoveries ⁽¹⁾	1,318	207	1,525	918	17	935	46	2,506
Net charge-offs	(1,820)	(136)	(1,956)	(200)	(76)	(276)	(2)	(2,234)
Provision (benefit) for credit losses	(868)	(34)	(902)	(563)	42	(521)	(489)	(1,912)
Allowance build (release) for credit losses	(2,688)	(170)	(2,858)	(763)	(34)	(797)	(491)	(4,146)
Other changes ⁽²⁾	6	6	12	—	—	—	—	12
Balance as of December 31, 2021	7,968	377	8,345	1,852	66	1,918	1,167	11,430
Reserve for unfunded lending commitments:								
Balance as of December 31, 2020	—	—	—	—	—	—	195	195
Provision (benefit) for losses on unfunded lending commitments	—	—	—	—	—	—	(30)	(30)
Balance as of December 31, 2021	—	—	—	—	—	—	165	165
Combined allowance and reserve as of December 31, 2021	\$ 7,968	\$ 377	\$ 8,345	\$ 1,852	\$ 66	\$ 1,918	\$ 1,332	\$ 11,595
Allowance for credit losses:								
Balance as of December 31, 2021	\$ 7,968	\$ 377	\$ 8,345	\$ 1,852	\$ 66	\$ 1,918	\$ 1,167	\$ 11,430
Charge-offs	(4,004)	(358)	(4,362)	(1,525)	(89)	(1,614)	(88)	(6,064)
Recoveries ⁽¹⁾	1,171	143	1,314	741	19	760	17	2,091
Net charge-offs	(2,833)	(215)	(3,048)	(784)	(70)	(854)	(71)	(3,973)
Provision for credit losses	4,020	245	4,265	1,119	54	1,173	362	5,800
Allowance build (release) for credit losses	1,187	30	1,217	335	(16)	319	291	1,827
Other changes ⁽²⁾	10	(27)	(17)	—	—	—	—	(17)
Balance as of December 31, 2022	9,165	380	9,545	2,187	50	2,237	1,458	13,240
Reserve for unfunded lending commitments:								
Balance as of December 31, 2021	—	—	—	—	—	—	165	165
Provision for losses on unfunded lending commitments	—	—	—	—	—	—	53	53
Balance as of December 31, 2022	—	—	—	—	—	—	218	218
Combined allowance and reserve as of December 31, 2022	\$ 9,165	\$ 380	\$ 9,545	\$ 2,187	\$ 50	\$ 2,237	\$ 1,676	\$ 13,458

⁽¹⁾ The amount and timing of recoveries are impacted by our collection strategies, which are based on customer behavior and risk profile and include direct customer communications, repossession of collateral, the periodic sale of charged off loans as well as additional strategies, such as litigation.

⁽²⁾ Primarily represents foreign currency translation adjustments and the initial allowance for purchased credit-deteriorated loans. The initial allowance for purchased credit-deteriorated loans was \$10 million and \$6 million for the years ended December 31, 2022 and 2021, respectively.

Allowance coverage ratios are calculated based on the allowance for credit losses for each specified portfolio segment divided by period-end loans held for investment within the specified loan category, as defined below. Table 29 presents the allowance coverage ratios as of December 31, 2022 and 2021.

Table 29: Allowance Coverage Ratios for Specified Loan Category

<i>(Dollars in millions)</i>	December 31, 2022			December 31, 2021		
	Allowance for Credit Losses	Amount ⁽¹⁾	Allowance Coverage Ratio	Allowance for Credit Losses	Amount ⁽¹⁾	Allowance Coverage Ratio
Credit Card	\$ 9,545	\$ 4,769	200.16%	\$ 8,345	\$ 2,624	318.08%
Consumer Banking	2,237	4,940	45.27	1,918	3,618	53.01
Commercial Banking	1,458	701	207.73	1,167	699	166.93
Total	<u>\$ 13,240</u>	<u>312,331</u>	<u>4.24</u>	<u>\$ 11,430</u>	<u>277,340</u>	<u>4.12</u>

⁽¹⁾ Represents period-end 30+ day delinquent loans for our credit card and consumer banking loan portfolios, nonperforming loans for our commercial banking loan portfolio and total loans held for investment for the total ratio.

Our allowance for credit losses increased by \$1.8 billion to \$13.2 billion as of December 31, 2022 compared to 2021 and our allowance coverage ratio increased by 12 basis points to 4.24% as of December 31, 2022 compared to 2021.

The ratio of the allowance for credit losses divided by total nonperforming loans held for investment of \$1.3 billion and \$1.1 billion as of December 31, 2022 and 2021, respectively, decreased by 54% to 985% as of December 31, 2022 from 1,039% as of December 31, 2021. Excluding the impact of the allowance for credit losses related to Domestic Card of \$9.2 billion and \$8.0 billion as of December 31, 2022 and 2021, respectively, this ratio decreased by 12% to 303% as of December 31, 2022 from 315% as of December 31, 2021. The decrease in the ratio in both scenarios was driven by an increase in our nonperforming loans partially offset by an increase in our allowance for credit losses driven by credit normalization and loan growth.

LIQUIDITY RISK PROFILE

We have established liquidity practices that are intended to ensure that we have sufficient asset-based liquidity to cover our funding requirements and maintain adequate reserves to withstand the potential impact of deposit attrition or diminished liquidity in the funding markets. In addition to our cash and cash equivalents, we maintain reserves in the form of investment securities and certain loans that are either readily-marketable or pledgeable.

Table 30 below presents the composition of our liquidity reserves as of December 31, 2022 and 2021.

Table 30: Liquidity Reserves

<i>(Dollars in millions)</i>	December 31, 2022	December 31, 2021
Cash and cash equivalents	\$ 30,856	\$ 21,746
Investment securities available for sale, at fair value	76,919	95,261
FHLB borrowing capacity secured by loans	6,436	7,109
Outstanding FHLB advances and letters of credit secured by loans and investment securities	(51)	(8)
Other encumbrances of investment securities	(7,583)	(7,874)
Total liquidity reserves	<u>\$ 106,577</u>	<u>\$ 116,234</u>

Our liquidity reserves decreased by \$9.7 billion to \$106.6 billion as of December 31, 2022 from December 31, 2021 primarily due to a decline in our investment securities that more than offset an increase in cash and cash equivalents. In addition to these liquidity reserves, we maintain access to a diversified mix of funding sources as discussed in the “Borrowing Capacity” and “Funding” sections below. See “Risk Management” for additional information on our management of liquidity risk.

Liquidity Coverage Ratio

We are subject to the LCR Rule as implemented by the Federal Reserve and OCC. The LCR Rule requires each of the Company and the Bank to calculate its respective LCR daily. It also requires the Company to publicly disclose, on a quarterly basis, its LCR, certain related quantitative liquidity metrics, and a qualitative discussion of its LCR. Our average LCR during fourth quarter 2022 was 143%, which exceeded the LCR Rule requirement of 100%. The calculation and the underlying components are based on our interpretations, expectations and assumptions of relevant regulations, as well as interpretations provided by our regulators, and are subject to change based on changes to future regulations and interpretations. See “Part I—Item 1. Business—Supervision and Regulation” for additional information.

Net Stable Funding Ratio

The NSFR rule requires the Company and the Bank to maintain an amount of available stable funding, which is a weighted measure of a company’s funding sources over a one-year time horizon, calculated by applying standardized weightings to equity and liabilities based on their expected stability, that is no less than a specified percentage of its required stable funding, which is calculated by applying standardized weightings to assets, derivatives exposures and certain other items based on their liquidity characteristics. As a Category III institution, the Company and the Bank are each required to maintain available stable funding in an amount at least equal to 85% of its required stable funding. The NSFR rule includes a semi-annual public disclosure requirement, with the first disclosure due 45 days after the end of the second quarter of 2023. The Company and the Bank exceeded the NSFR rule requirement as of December 31, 2022.

Borrowing Capacity

We maintain a shelf registration with the SEC so that we may periodically offer and sell an indeterminate aggregate amount of senior or subordinated debt securities, preferred stock, depositary shares, common stock, purchase contracts, warrants and units. There is no limit under this shelf registration to the amount or number of such securities that we may offer and sell, subject to market conditions. In addition, we also maintain a shelf registration associated with our credit card securitization trust that allows us to periodically offer and sell up to \$30 billion of securitized debt obligations and a shelf registration associated with our auto loan securitization trusts that allows us to periodically offer and sell up to \$25 billion of securitized debt obligations. The registered amounts under these shelf registration statements are subject to continuing review and change in the future, including as part of the routine renewal process.

In addition to our issuance capacity under the shelf registration statements, we also have access to FHLB advances, the Federal Reserve Discount Window and the Fixed Income Clearing Corporation’s general collateral financing repurchase agreement service. The ability to borrow utilizing these sources is based on membership status and the amount is dependent upon the Bank’s ability to post collateral. As of December 31, 2022, we pledged both loans and securities to the FHLB to secure a maximum borrowing capacity of \$19.9 billion, of which \$51 million was used. Our FHLB membership is supported by our investment in FHLB stock of \$15 million and \$32 million as of December 31, 2022 and 2021, respectively, which was determined in part based on our outstanding advances. As of December 31, 2022, we pledged loans to secure a borrowing capacity of \$19.7 billion under the Federal Reserve Discount Window. Our membership with the Federal Reserve is supported by our investment in Federal Reserve stock, which totaled \$1.3 billion as of both December 31, 2022 and 2021.

Deposits

Table 31 provides a comparison of average balances, interest expense and average deposits interest rates for December 31, 2022, 2021 and 2020.

Table 31: Deposits Composition and Average Deposits Interest Rates

<i>(Dollars in millions)</i>	Year Ended December 31,								
	2022			2021			2020		
	Average Balance	Interest Expense	Average Deposits Interest Rate	Average Balance	Interest Expense	Average Deposits Interest Rate	Average Balance	Interest Expense	Average Deposit Interest Rate
Interest-bearing checking accounts ⁽¹⁾	\$ 48,291	\$ 312	0.65%	\$ 45,055	\$ 76	0.17%	\$ 37,136	\$ 129	0.35%
Saving deposits ⁽²⁾	202,454	1,628	0.80	203,293	628	0.31	184,466	1,278	0.69
Time deposits	26,463	595	2.25	23,152	252	1.09	41,677	758	1.82
Total interest-bearing deposits	<u>\$277,208</u>	<u>\$ 2,535</u>	<u>0.91</u>	<u>\$271,500</u>	<u>\$ 956</u>	<u>0.35</u>	<u>\$263,279</u>	<u>\$ 2,165</u>	<u>0.82</u>

⁽¹⁾ Includes negotiable order of withdrawal accounts.

⁽²⁾ Includes money market deposit accounts.

The FDIC limits the acceptance of brokered deposits to well-capitalized insured depository institutions and, with a waiver from the FDIC, to adequately-capitalized institutions. The Bank was well-capitalized, as defined under the federal banking regulatory guidelines, as of December 31, 2022 and 2021. See “Part I—Item 1. Business—Supervision and Regulation” for additional information. We provide additional information on the composition of deposits in “Consolidated Balance Sheets Analysis—Funding Sources Composition” and in “Part II—Item 8. Financial Statements and Supplementary Data—Note 8—Deposits and Borrowings.”

Funding

Our primary source of funding comes from deposits, as they are a stable and relatively low cost source of funding. In addition to deposits, we raise funding through the issuance of senior and subordinated notes and securitized debt obligations, federal funds purchased, securities loaned or sold under agreements to repurchase and FHLB advances secured by certain portions of our loan and securities portfolios. A key objective in our use of these markets is to maintain access to a diversified mix of wholesale funding sources. See “Consolidated Balance Sheets Analysis—Funding Sources Composition” for additional information on our primary sources of funding.

In the normal course of business, we enter into various contractual obligations that may require future cash payments that affect our short-term and long-term liquidity and capital resource needs. Our future cash outflows primarily relate to deposits, borrowings and operating leases. The actual timing and amounts of future cash payments may vary over time due to a number of factors, such as early debt redemptions and changes in deposit balances.

As of December 31, 2022 and 2021, excluding intercompany balances, we held approximately \$80.7 billion and \$91.7 billion, respectively, of uninsured deposits primarily comprised of checking accounts and savings deposits. We estimate our uninsured amounts at the account level based on the same methodologies and assumptions used for our “Consolidated Reports of Condition and Income” (FFIEC 031) filed with the Federal Banking Agencies. Table 32 presents, by contractual maturity, the amount of time deposits in excess of the FDIC insurance limit of \$250,000 as of December 31, 2022 and 2021. Our funding and liquidity management activities factor into the expected maturities of these deposits.

Table 32: Amount of Time Deposits in Excess of \$250,000 by Contractual Maturity

<i>(Dollars in millions)</i>	December 31, 2022		December 31, 2021	
	Amount	% of Total	Amount	% of Total
Up to three months	\$ 87	4.3%	\$ 122	20.7%
> 3 months to 6 months	139	6.8	161	27.3
> 6 months to 12 months	1,098	54.0	134	22.8
> 12 months	708	34.9	172	29.2
Total	\$ 2,032	100.0%	\$ 589	100.0%

Short-Term Borrowings and Long-Term Debt

We access the capital markets to meet our funding needs through the issuance of senior and subordinated notes, securitized debt obligations and federal funds purchased and securities loaned or sold under agreements to repurchase. In addition, we have access to short-term and long-term FHLB advances secured by certain investment securities, multifamily real estate loans and commercial real estate loans.

Our short-term borrowings, which include those borrowings with an original contractual maturity of one year or less, consisting of federal funds purchased, securities loaned or sold under agreements to repurchase and short-term FHLB advances, and do not include the current portion of long-term debt, increased by \$63 million to \$883 million as of December 31, 2022 from December 31, 2021 driven by an increase in repurchase agreements.

Our long-term funding, which primarily consists of securitized debt obligations and senior and subordinated notes, increased by \$5.6 billion to \$47.8 billion as of December 31, 2022 from December 31, 2021 primarily driven by net issuances of senior unsecured debt and net issuances in our auto and credit card securitization programs. We provide more information on our securitization activity in “Part II—Item 8. Financial Statements and Supplementary Data—Note 5—Variable Interest Entities and Securitizations” and on our borrowings in “Part II—Item 8. Financial Statements and Supplementary Data—Note 8—Deposits and Borrowings.”

The following table summarizes issuances of securitized debt obligations, senior and subordinated notes and their respective maturities or redemptions for the years ended December 31, 2022, 2021 and 2020.

Table 33: Long-Term Debt Funding Activities

<i>(Dollars in millions)</i>	Issuances			Maturities/Redemptions		
	Year Ended December 31,			Year Ended December 31,		
	2022	2021	2020	2022	2021	2020
Securitized debt obligations	\$ 9,750	\$ 6,250	\$ 1,250	\$ 7,060	\$ 3,442	\$ 6,868
Senior and subordinated notes	9,300	4,500	4,000	3,561	3,851	8,092
FHLB advances	12,000	—	—	12,000	—	—
Total	\$ 31,050	\$ 10,750	\$ 5,250	\$ 22,621	\$ 7,293	\$ 14,960

Credit Ratings

Our credit ratings impact our ability to access capital markets and our borrowing costs. Rating agencies assign their ratings based on numerous factors, including liquidity, capital adequacy, asset quality, quality of earnings and the probability of systemic support. Significant changes in these factors could result in different ratings.

Table 34 provides a summary of the credit ratings for the senior unsecured long-term debt of Capital One Financial Corporation and CONA as of December 31, 2022 and 2021.

Table 34: Senior Unsecured Long-Term Debt Credit Ratings

	December 31, 2022		December 31, 2021	
	Capital One Financial Corporation	CONA	Capital One Financial Corporation	CONA
Moody's	Baa1	A3	Baa1	A3
S&P	BBB	BBB+	BBB	BBB+
Fitch	A-	A	A-	A

As of February 16, 2023, Moody's Investors Service ("Moody's"), Standard & Poor's ("S&P") and Fitch Ratings ("Fitch") have our credit ratings on a stable outlook.

Other Commitments

Our primary involvement with leases is in the capacity as a lessee where we lease premises to support our business. The majority of our leases are operating leases of office space, retail bank branches and cafés. Our operating leases expire at various dates through 2071, although some have extension or termination options. As of both December 31, 2022 and 2021, we had \$1.7 billion in aggregate operating lease liabilities, of which \$259 million will be due in the following 12 months. We provide more information on our lease activity in "Part II—Item 8. Financial Statements and Supplementary Data—Note 7—Premises, Equipment and Leases."

We have purchase obligations that represent substantial agreements to purchase goods or receive services such as data management, media and other software and third-party services that are enforceable and legally binding and specify significant terms. As of December 31, 2022 and 2021, we had \$1.1 billion and \$1.5 billion, respectively, in aggregate purchase obligation liabilities.

As of December 31, 2022 and 2021, our total unfunded lending commitments were \$409.3 billion and \$414.5 billion, respectively, primarily consisting of credit card lines and loan commitments to customers of both our Commercial Banking and Consumer Banking businesses, as well as standby and commercial letters of credit. We generally manage the potential risk of unfunded lending commitments by limiting the total amount of arrangements, monitoring the size and maturity structure of these portfolios and applying the same credit standards for all of our credit activities. For additional information, refer to "Part II—Item 8. Financial Statements and Supplementary Data—Note 18—Commitments, Contingencies, Guarantees and Others."

We also enter into various contractual arrangements that may require future cash payments, including short-term obligations such as trade payables, commitments to fund certain equity investments, obligations for pension and post-retirement benefit plans, and representation and warranty reserves. These arrangements are discussed in more detail in "Part II—Item 8. Financial Statements and Supplementary Data—Note 5—Variable Interest Entities and Securitizations," "Part II—Item 8. Financial Statements and Supplementary Data—Note 14—Employee Benefit Plans" and "Part II—Item 8. Financial Statements and Supplementary Data—Note 18—Commitments, Contingencies, Guarantees and Others."

MARKET RISK PROFILE

Our primary market risk exposures include interest rate risk, foreign exchange risk and commodity pricing risk. We are exposed to market risk primarily from the following operations and activities:

- Traditional banking activities of deposit gathering and lending;
- Asset/liability management activities including the management of investment securities, short-term and long-term borrowings and derivatives;
- Foreign operations in the U.K. and Canada within our Credit Card business; and
- Customer accommodation activities within our Commercial Banking business.

We have enterprise-wide risk management policies and limits, approved by our Board of Directors, which govern our market risk management activities. Our objective is to manage our exposure to market risk in accordance with these policies and limits based on prevailing market conditions and long-term expectations. We provide additional information below about our primary sources of market risk, our market risk management strategies and the measures that we use to evaluate these exposures.

Interest Rate Risk

Interest rate risk represents exposure to financial instruments whose values vary with the level or volatility of interest rates. We are exposed to interest rate risk primarily from the differences in the timing between the maturities or re-pricing of assets and liabilities. We manage our interest rate risk primarily by entering into interest rate swaps and other derivative instruments which could include caps, floors, options, futures and forward contracts.

We use various industry standard market risk measurement techniques and analyses to measure, assess and manage the impact of changes in interest rates on our net interest income and our economic value of equity and changes in foreign exchange rates on our non-dollar-denominated funding and non-dollar equity investments in foreign operations.

Net Interest Income Sensitivity

Our net interest income sensitivity measure estimates the impact on our projected 12-month baseline net interest income resulting from movements in interest rates. In addition to our existing assets and liabilities, we incorporate expected future business growth assumptions, such as loan and deposit growth and pricing, and plans for projected changes in our funding mix in our baseline forecast. In measuring the sensitivity of interest rate movements on our projected net interest income, we assume a hypothetical instantaneous parallel shift in the level of interest rates detailed in Table 35 below. At the current level of interest rates, our net interest income is expected to increase in higher rate scenarios and decrease in lower rate scenarios. Our current sensitivity to upward shocks has decreased as compared to December 31, 2021, mainly due to the increase in market interest rates.

Economic Value of Equity Sensitivity

Our economic value of equity sensitivity measure estimates the impact on the net present value of our assets and liabilities, including derivative exposures, resulting from movements in interest rates. Our economic value of equity sensitivity measure is calculated based on our existing assets and liabilities, including derivatives, and does not incorporate business growth assumptions or projected balance sheet changes. Key assumptions used in the calculation include projecting rate sensitive prepayments for mortgage securities, loans and other assets, term structure modeling of interest rates, discount spreads, and deposit volume and pricing assumptions. In measuring the sensitivity of interest rate movements on our economic value of equity, we assume a hypothetical instantaneous parallel shift in the level of interest rates detailed in Table 35 below. Our current economic value of equity sensitivity profile demonstrates that our economic value of equity decreases in higher interest rate scenarios and increases in most lower interest rate scenarios. Our current economic value of equity sensitivity to upward shocks in higher rate scenarios became more negative as compared to December 31, 2021, mainly due to the increase in long-term interest rates.

Table 35 shows the estimated percentage impact on our projected baseline net interest income and economic value of equity calculated under the methodology described above as of December 31, 2022 and 2021. In instances where an interest rate scenario would result in a rate less than 0%, we assume a rate of 0% for that scenario. This assumption applies only to jurisdictions that do not have negative policy rates. In jurisdictions that have negative policy rates, we do not floor interest rates at 0%.

Table 35: Interest Rate Sensitivity Analysis

	December 31, 2022	December 31, 2021
Estimated impact on projected baseline net interest income:		
+200 basis points	0.4%	3.4%
+100 basis points	0.8	2.5
+50 basis points	0.4	1.5
–50 basis points	(0.7)	(1.8)
–100 basis points	(1.3)	N/A
–200 basis points	(2.6)	N/A
Estimated impact on economic value of equity:		
+200 basis points	(4.3)	(0.7)
+100 basis points	(1.5)	1.9
+50 basis points	(0.7)	1.4
–50 basis points	0.4	(2.6)
–100 basis points	0.6	N/A
–200 basis points	(0.2)	N/A

In addition to these industry standard measures, we also consider the potential impact of alternative interest rate scenarios, such as stressed rate shocks as well as steepening and flattening yield curve scenarios in our internal interest rate risk management decisions.

Limitations of Market Risk Measures

The interest rate risk models that we use in deriving these measures incorporate contractual information, internally-developed assumptions and proprietary modeling methodologies, which project borrower and depositor behavior patterns in certain interest rate environments. Other market inputs, such as interest rates, market prices and interest rate volatility, are also critical components of our interest rate risk measures. We regularly evaluate, update and enhance these assumptions, models and analytical tools as we believe appropriate to reflect our best assessment of the market environment and the expected behavior patterns of our existing assets and liabilities.

There are inherent limitations in any methodology used to estimate the exposure to changes in market interest rates. The sensitivity analysis described above contemplates only certain movements in interest rates and is performed at a particular point in time based on our existing balance sheet and, in some cases, expected future business growth and funding mix assumptions. The strategic actions that management may take to manage our balance sheet may differ significantly from our projections, which could cause our actual earnings and economic value of equity sensitivities to differ substantially from the above sensitivity analysis.

For further information on our interest rate exposures, see “Part II—Item 8. Financial Statements and Supplementary Data—Note 9—Derivative Instruments and Hedging Activities.”

Foreign Exchange Risk

Foreign exchange risk represents exposure to changes in the values of current holdings and future cash flows denominated in other currencies. We are exposed to foreign exchange risk primarily from the intercompany funding denominated in pound sterling (“GBP”) and the Canadian dollar (“CAD”) that we provide to our businesses in the U.K. and Canada and net equity investments in those businesses. We are also exposed to foreign exchange risk due to changes in the dollar-denominated value of future earnings and cash flows from our foreign operations and from our Euro (“EUR”)-denominated borrowings.

Our non-dollar denominated intercompany funding and EUR-denominated borrowings expose our earnings to foreign exchange transaction risk. We manage these transaction risks by using forward foreign currency derivatives and cross-currency swaps to hedge our exposures. We measure our foreign exchange transaction risk exposures by applying a 1% U.S. dollar appreciation shock against the value of the non-dollar denominated intercompany funding and EUR-denominated borrowings and their related hedges, which shows the impact to our earnings from foreign exchange risk. Our nominal intercompany funding outstanding was 785 million GBP and 520 million GBP as of December 31, 2022 and 2021, respectively, and 1.7 billion CAD and 5.0 billion CAD as of December 31, 2022 and 2021, respectively. Our nominal EUR-denominated borrowings outstanding were 1.3 billion EUR and 1.2 billion EUR as of December 31, 2022 and 2021, respectively.

Our non-dollar equity investments in foreign operations expose our balance sheet to translation risk in AOCI and our capital ratios. We manage our AOCI exposure by entering into foreign currency derivatives designated as net investment hedges. We measure these exposures by applying a 30% U.S. dollar appreciation shock, which we believe approximates a significant adverse shock over a one-year time horizon, against the value of the equity invested in our foreign operations net of related net investment hedges where applicable. Our gross equity exposures in our U.K. and Canadian operations were 1.9 billion GBP and 1.8 billion GBP as of December 31, 2022 and 2021, respectively and 2.2 billion CAD and 1.9 billion CAD as of December 31, 2022 and 2021, respectively.

As a result of our derivative management activities, we believe our net exposure to foreign exchange risk is minimal.

Risk related to Customer Accommodation Derivatives

We offer interest rate, commodity and foreign currency derivatives as an accommodation to our customers within our Commercial Banking business. We offset the majority of the market risk of these customer accommodation derivatives by entering into offsetting derivatives transactions with other counterparties. We use value-at-risk (“VaR”) as the primary method to measure the market risk in our customer accommodation derivative activities on a daily basis. VaR is a statistical risk measure used to estimate the potential loss from movements observed in the recent market environment. We employ a historical simulation approach using the most recent 500 business days and use a 99 percent confidence level and a holding period of one business day. As a result of offsetting our customer exposures with other counterparties, we believe that our net exposure to market risk in our customer accommodation derivatives is minimal. For further information on our risk related to customer accommodation derivatives, see “Part II—Item 8. Financial Statements and Supplementary Data—Note 9—Derivative Instruments and Hedging Activities.”

London Interbank Offered Rate Transition

On July 27, 2017, the U.K. Financial Conduct Authority (“FCA”), the regulator for the administration of LIBOR, announced that LIBOR would be phased out as an interest rate benchmark and that it will no longer compel panel banks to contribute LIBOR data beyond December 31, 2021.

On March 5, 2021, the ICE Benchmark Administration (“IBA”), the administrator of LIBOR, confirmed its intention to cease publication of the 1-week and 2-month U.S. dollar (“USD”) LIBOR settings immediately following the LIBOR publication on December 31, 2021, and the remaining USD LIBOR tenors (overnight; 1, 3, 6, and 12 months) immediately following the LIBOR publication on June 30, 2023. The continuation of USD LIBOR as a representative rate into mid-2023 will allow many legacy USD LIBOR contracts to mature prior to cessation. Following IBA’s announcement, the FCA formally announced the future permanent cessation and loss of representativeness of LIBOR benchmarks. The Federal Banking Agencies issued further guidance that banking organizations should cease using USD LIBOR as a reference rate in new contracts as soon as practicable and in any event by December 31, 2021. Consistent with the Federal Banking Agencies’ guidance, we ceased entering into new contracts referencing USD LIBOR as a reference rate as of January 1, 2022, subject to certain permissible exceptions.

On December 16, 2022, the Federal Reserve Board adopted the final rule that implemented the LIBOR Act. The LIBOR Act identified benchmark replacement rates based on SOFR for covered derivative transactions and cash transactions where a

practicable interest rate fallback method has not been established by June 30, 2023, including those in which a government-sponsored enterprise is a party.

Our LIBOR transition effort remains focused on proactively transitioning exposures to an alternative rate or incorporating transition language (“fallback language”) to provide a contractual mechanism for transitioning upon the LIBOR cessation. Our fallback language aligns with the language recommended by the Alternative Reference Rates Committee (“ARRC”) in our lending contracts and the International Swaps and Derivatives Association (“ISDA”) in our derivative contracts and agreements to the greatest extent possible.

Our enterprise LIBOR transition program team, which has been working on this effort since 2018 and includes senior management representatives from across the enterprise, provides monthly reporting to senior management and quarterly reporting to our Board of Directors. The information provided to senior management and the Board of Directors includes exposure reporting, updates on progress toward our goals to reduce our LIBOR exposure and relevant regulatory or industry developments.

We continue to focus our LIBOR transition efforts on:

- monitoring established controls to prevent the origination of impermissible LIBOR indexed instruments
- working with impacted customers and counterparties to remediate remaining LIBOR contracts and our central counterparty clearinghouses and derivative clearinghouses for conversion of centrally cleared USD LIBOR products
- engaging with our clients, industry working groups, and regulators
- preparing to transition remaining contracts, including those with hardwired fallback language, operable legacy fallback language and those covered under the scope of the LIBOR Act.

The majority of LIBOR contracts that we have transitioned to alternative rates have employed SOFR. In the U.S., SOFR has been selected as the preferred alternative rate by the ARRC for certain U.S. dollar derivative and cash instruments. We have proactively worked with customers and prepared our systems, models, valuation tools and processes to focus originations on SOFR and other non-LIBOR rates and will continue to do so as needed. While the majority of our non-LIBOR transactions have utilized SOFR, we have also employed credit sensitive alternative rates to LIBOR, to a limited extent, in response to customer demand.

To track transition status, instruments are categorized based on whether they have fallback language (which may or may not adhere to the ISDA and ARRC standards) or have no fallback language. The majority of the instruments maturing after June 30, 2023 are derivatives and commercial loans, which are summarized in the table below. Of these instruments, the majority contain fallback language which adheres to the ISDA and ARRC standards. The LIBOR Act provides a means for transitioning certain contracts that lack fallback language and which we are not able to otherwise remediate prior to LIBOR cessation. We will continue to focus on reducing our LIBOR exposures through our transition efforts, normal operations and customer interactions.

Table 36: LIBOR Exposures on Derivatives and Commercial Loans

(Dollars in millions)

Exposure Type ⁽¹⁾	December 31, 2022		
	Total LIBOR Commitments	Total LIBOR Commitments Maturing after June 30, 2023	Total LIBOR Commitments Maturing after June 30, 2023 Without Fallback Language
Derivatives	\$ 38,257	\$ 34,606	\$ 7,211
Commercial loans	33,099	28,994	887
Total	\$ 71,356	\$ 63,600	\$ 8,098

(Dollars in millions)

December 31, 2021

Exposure Type⁽¹⁾	Total LIBOR Commitments	Total LIBOR Commitments Maturing after June 30, 2023	Total LIBOR Commitments Maturing after June 30, 2023 Without Fallback Language
Derivatives	\$ 103,562	\$ 64,605	\$ 14,536
Commercial loans	101,488	71,874	2,047
Total	\$ 205,050	\$ 136,479	\$ 16,583

⁽¹⁾ Commercial loan balances represent maximum potential exposures and derivatives represent notional exposure.

These transition efforts have been implemented to remediate our remaining LIBOR contracts by June 30, 2023. For a further discussion of the various risks we face in connection with the expected replacement of LIBOR on our operations, see “Part I—Item 1A. Risk Factors—*The transition away from LIBOR may adversely affect our business.*”

SUPPLEMENTAL TABLES

Table A—Net Charge-Offs

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Average loans held for investment	\$ 292,238	\$ 252,730	\$ 253,335
Net charge-offs	3,973	2,234	5,225
Net charge-off rate	1.36%	0.88%	2.06%

Table B—Reconciliation of Non-GAAP Measures

The following non-GAAP measure consists of our adjusted results that we believe helps investors and users of our financial information understand the effect of adjusting items on our selected reported results; however, it may not be comparable to similarly-titled measures reported by other companies. This adjusted result provides alternate measurements of our operating performance, both for the current period and trends across multiple periods. The following table presents reconciliations of the non-GAAP measure to the applicable amounts measured in accordance with GAAP. The non-GAAP measure below should not be viewed as a substitute for reported results determined in accordance with GAAP.

<i>(Dollars in millions, except as noted)</i>	December 31,		
	2022	2021	2020
Adjusted operating efficiency ratio:			
Operating expense (GAAP)	\$ 15,146	\$ 13,699	\$ 13,446
Insurance recoveries and legal reserve activity	177	(100)	(313)
Restructuring charges	(72)	—	—
Cybersecurity Incident expenses, net of insurance	—	—	(27)
Adjusted operating expense (non-GAAP)	\$ 15,251	\$ 13,599	\$ 13,106
Total net revenue (GAAP)	\$ 34,250	\$ 30,435	\$ 28,523
U.K. PPI Reserve	—	—	(36)
Adjusted net revenue (non-GAAP)	\$ 34,250	\$ 30,435	\$ 28,487
Operating efficiency ratio (GAAP)	44.22%	45.01%	47.14%
Impact of adjustments noted above	31bps	(33)bps	(113)bps
Adjusted operating efficiency ratio (non-GAAP)	44.53%	44.68%	46.01%

The following non-GAAP measures consist of TCE, tangible assets and metrics computed using these amounts, which include tangible book value per common share, return on average tangible assets, return on average TCE and TCE ratio. We consider these metrics to be key financial performance measures that management uses in assessing capital adequacy and the level of returns generated. While these non-GAAP measures are widely used by investors, analysts and bank regulatory agencies to assess the capital position of financial services companies, they may not be comparable to similarly-titled measures reported by other companies. The following table presents reconciliations of these non-GAAP measures to the applicable amounts measured in accordance with GAAP. These non-GAAP measures should not be viewed as a substitute for reported results determined in accordance with GAAP.

<i>(Dollars in millions, except as noted)</i>	December 31,		
	2022	2021	2020
Tangible Common Equity (Period-End):			
Stockholders' equity	\$ 52,582	\$ 61,029	\$ 60,204
Goodwill and other intangible assets ⁽¹⁾	(14,902)	(14,907)	(14,809)
Noncumulative perpetual preferred stock	(4,845)	(4,845)	(4,847)
Tangible common equity	<u>\$ 32,835</u>	<u>\$ 41,277</u>	<u>\$ 40,548</u>
Tangible Common Equity (Average):			
Stockholders' equity	\$ 55,125	\$ 62,556	\$ 58,201
Goodwill and other intangible assets ⁽¹⁾	(14,905)	(14,805)	(14,875)
Noncumulative perpetual preferred stock	(4,845)	(5,590)	(5,247)
Tangible common equity	<u>\$ 35,375</u>	<u>\$ 42,161</u>	<u>\$ 38,079</u>
Tangible Assets (Period-End):			
Total assets	\$ 455,249	\$ 432,381	\$ 421,602
Goodwill and other intangible assets ⁽¹⁾	(14,902)	(14,907)	(14,809)
Tangible assets	<u>\$ 440,347</u>	<u>\$ 417,474</u>	<u>\$ 406,793</u>
Tangible Assets (Average):			
Total assets	\$ 440,538	\$ 424,521	\$ 411,187
Goodwill and other intangible assets ⁽¹⁾	(14,905)	(14,805)	(14,875)
Tangible assets	<u>\$ 425,633</u>	<u>\$ 409,716</u>	<u>\$ 396,312</u>
Non-GAAP Ratio:			
TCE ⁽²⁾	7.5%	9.9%	10.0%

⁽¹⁾ Includes impact of related deferred taxes.

⁽²⁾ TCE ratio is a non-GAAP measure calculated based on TCE divided by period-end tangible assets.

Glossary and Acronyms

Alternative Reference Rates Committee (“ARRC”): A group of private-market participants convened by the Federal Reserve Board and the Federal Reserve Bank of New York that has recommended SOFR as the preferred alternative to replace U.S. dollar (USD) LIBOR referenced instruments.

Amortized cost: The amount at which a financing receivable or investment is originated or acquired, adjusted for applicable accrued interest, accretion, or amortization of premium, discount, and net deferred fees or costs, collection of cash, write-offs, foreign exchange and fair value hedge accounting adjustments.

Annual Report: References to “this Report” or our “2022 Form 10-K” or “2022 Annual Report” are to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

Bank: Refers to (i) CONA from and after the Bank Merger and (ii) CONA and COBNA collectively prior to the Bank Merger.

Bank Merger: The merger of Capital One Bank (USA), National Association (“COBNA”), with and into CONA, with CONA as the surviving entity, that occurred on October 1, 2022.

Basel Committee: The Basel Committee on Banking Supervision.

Basel III Capital Rules: The regulatory capital requirements established by the Federal Banking Agencies in July 2013 to implement the Basel III capital framework developed by the Basel Committee as well as certain Dodd-Frank Act and other capital provisions.

Basel III standardized approach: The Basel III Capital Rules modified Basel I to create the Basel III standardized approach.

Capital One or the Company: Capital One Financial Corporation and its subsidiaries.

The Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”): Legislation signed into law on March 27, 2020, which expired on January 1, 2022. This law, while in effect, among other things, authorized a number of lending programs to support the flow of credit to consumers and businesses and gave the banking organizations an option to temporarily suspend the determination of certain qualified loans modified as a result of COVID-19 as being TDRs, which was extended by the Consolidated Appropriations Act 2021.

Carrying value (with respect to loans): The amount at which a loan is recorded on the consolidated balance sheets. For loans recorded at amortized cost, carrying value is the unpaid principal balance net of unamortized deferred loan origination fees and costs, and unamortized purchase premium or discount. For loans that are or have been on nonaccrual status, the carrying value is also reduced by any net charge-offs that have been recorded and the amount of interest payments applied as a reduction of principal under the cost recovery method. For credit card loans, the carrying value also includes interest that has been billed to the customer, net of any related reserves. Loans held for sale are recorded at either fair value (if we elect the fair value option) or at the lower of cost or fair value.

CECL: In June 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2016-13, Financial Instruments—Credit Losses (Topic 326): *Measurement of Credit Losses on Financial Instruments*. This ASU requires an impairment model (known as the CECL model) that is based on expected rather than incurred losses, with an anticipated result of more timely loss recognition. This guidance was effective for us on January 1, 2020.

CECL Transition Rule: A rule adopted by the Federal Banking Agencies and effective in 2020 that provides banking institutions an optional five-year transition period to phase in the impact of the CECL standard on their regulatory capital.

COBNA: Capital One Bank (USA), National Association, one of our wholly-owned subsidiaries through September 30, 2022, offered credit card products along with other lending products and consumer services. On October 1, 2022, the Company completed the merger of COBNA with and into CONA, with CONA as the surviving entity.

Common equity Tier 1 (“CET1”) capital: CET1 capital primarily includes qualifying common shareholders’ equity, retained earnings and certain AOCI amounts less certain deductions for goodwill, intangible assets, and certain deferred tax assets.

CONA: Capital One, National Association, one of our wholly-owned subsidiaries, which offers a broad spectrum of banking products and financial services to consumers, small businesses and commercial clients.

Consolidated EEO-1 Report: Mandatory annual data collection requiring private sector employers with 100 or more employees or federal contractors with 50 or more employees meeting certain criteria to submit demographic workforce data including race/ethnicity, gender and job category.

Credit risk: The risk to current or projected financial condition and resilience arising from an obligor's failure to meet the terms of any contract with the Company or otherwise perform as agreed.

Cybersecurity Incident: The unauthorized access by an outside individual who obtained certain types of personal information relating to people who had applied for our credit card products and to our credit card customers that we announced on July 29, 2019.

Deposit Insurance Fund ("DIF"): A fund maintained by the FDIC to provide insurance coverage for certain deposits. It is funded through assessments on banks.

Derivative: A contract or agreement whose value is derived from changes in interest rates, foreign exchange rates, prices of securities or commodities, credit worthiness for credit default swaps or financial or commodity indices.

Discontinued operations: The operating results of a component of an entity, as defined by Accounting Standards Codification ("ASC") 205, that are removed from continuing operations when that component has been disposed of or it is management's intention to sell the component.

Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"): Regulatory reform legislation signed into law on July 21, 2010. This law broadly affects the financial services industry and contains numerous provisions aimed at strengthening the sound operation of the financial services sector.

Exchange Act: The Securities Exchange Act of 1934, as amended.

eXtensible Business Reporting Language ("XBRL"): A language for the electronic communication of business and financial data.

Federal Banking Agencies: The Federal Reserve, Office of the Comptroller of the Currency and Federal Deposit Insurance Corporation.

Federal Deposit Insurance Corporation ("FDIC"): An independent U.S. governmental agency that administers the DIF.

Federal Reserve: The Board of Governors of the Federal Reserve System.

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical modeling software created by FICO (formerly known as "Fair Isaac Corporation") utilizing data collected by the credit bureaus.

Foreign exchange contracts: Contracts that provide for the future receipt or delivery of foreign currency at previously agreed-upon terms.

Framework: the Capital One enterprise-wide risk management framework.

GSE or Agency: A government-sponsored enterprise or agency is a financial services corporation created by the United States Congress. Examples of U.S. government agencies include Federal National Mortgage Association ("Fannie Mae"), Federal Home Loan Mortgage Corporation ("Freddie Mac"), Government National Mortgage Association ("Ginnie Mae") and the Federal Home Loan Banks ("FHLB").

Interest method: Method of amortization used to arrive at periodic interest income at a constant effective yield on the net investment in a financial asset.

Interest rate sensitivity: The exposure to interest rate movements.

Interest rate swaps: Contracts in which a series of interest rate flows in a single currency are exchanged over a prescribed period. Interest rate swaps are the most common type of derivative contract that we use in our asset/liability management activities.

Investment grade: Represents a Moody's long-term rating of Baa3 or better; and/or a S&P long-term rating of BBB- or better; and/or a Fitch long-term rating of BBB- or better; or if unrated, an equivalent rating using our internal risk ratings. Instruments that fall below these levels are considered to be non-investment grade.

Investor entities: Entities that invest in community development entities ("CDE") that provide debt financing to businesses and non-profit entities in low-income and rural communities.

LCR Rule: In September 2014, the Federal Banking Agencies issued final rules implementing the Basel III Liquidity Coverage Ratio ("LCR") in the United States. The LCR is calculated by dividing the amount of an institution's high quality, unencumbered liquid assets by its estimated net cash outflow, as defined and calculated in accordance with the LCR Rule.

Leverage ratio: Tier 1 capital divided by average assets after certain adjustments, as defined by regulators.

Liquidity risk: The risk that the Company will not be able to meet its future financial obligations as they come due, or invest in future asset growth because of an inability to obtain funds at a reasonable price within a reasonable time.

Loan-to-value ("LTV") ratio: The relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral securing the loan.

Managed presentation: A non-GAAP presentation of business segment results derived from our internal management accounting and reporting process, which employs various allocation methodologies, including funds transfer pricing, to assign certain balance sheet assets, deposits and other liabilities and their related revenues and expenses directly or indirectly attributable to each business segment. The results of our individual businesses reflect the manner in which management evaluates performance and makes decisions about funding our operations and allocating resources and are intended to reflect each segment as if it were a stand-alone business.

Market risk: The risk that an institution's earnings or the economic value of equity could be adversely impacted by changes in interest rates, foreign exchange rates or other market factors.

Master netting agreement: An agreement between two counterparties that have multiple contracts with each other that provides for the net settlement of all contracts through a single payment in the event of default or termination of any one contract.

Mortgage servicing rights ("MSRs"): The right to service a mortgage loan when the underlying loan is sold or securitized. Servicing includes collections for principal, interest and escrow payments from borrowers and accounting for and remitting principal and interest payments to investors.

Net charge-off rate: Represents (annualized) net charge-offs divided by average loans held for investment for the period. Negative net charge-offs and related rates are captioned as net recoveries.

Net interest margin: Represents (annualized) net interest income divided by average interest-earning assets for the period.

Nonperforming loans: Generally include loans that have been placed on nonaccrual status. We do not report loans classified as held for sale as nonperforming.

NSFR rule: The Federal Banking Agencies issued a rule in October 2020 implementing the net stable funding ratio ("NSFR"). The NSFR measures the stability of our funding profile and requires us to maintain minimum amounts of stable funding to support our assets, commitments and derivatives exposures over a one-year period.

Public Fund Deposits: Deposits that are derived from a variety of political subdivisions such as school districts and municipalities.

Purchase volume: Consists of purchase transactions, net of returns, for the period, and excludes cash advance and balance transfer transactions.

Rating agency: An independent agency that assesses the credit quality and likelihood of default of an issue or issuer and assigns a rating to that issue or issuer.

Repurchase agreement: An instrument used to raise short-term funds whereby securities are sold with an agreement for the seller to buy back the securities at a later date.

Restructuring charges: Charges associated with the realignment of resources supporting various businesses, primarily consisting of severance and related benefits pursuant to our ongoing benefit programs and impairment of certain assets related to the business locations and/or activities being exited.

Risk-weighted assets: On- and off-balance sheet assets that are assigned to one of several broad risk categories and weighted by factors representing their risk and potential for default.

Securitized debt obligations: A type of asset-backed security and structured credit product constructed from a portfolio of fixed-income assets.

Stress capital buffer requirement: A component of our standardized approach capital conservation buffer, which is recalibrated annually based on the results of our supervisory stress tests.

Stress Capital Buffer Rule: In March 2020, the Federal Reserve issued a final rule to implement the stress capital buffer requirement.

Subprime: For purposes of lending in our Credit Card business, we generally consider FICO scores of 660 or below, or other equivalent risk scores, to be subprime. For purposes of auto lending in our Consumer Banking business, we generally consider FICO scores of 620 or below to be subprime.

Tangible common equity (“TCE”): A non-GAAP financial measure calculated as common equity less goodwill and other intangible assets inclusive of any related deferred tax liabilities.

Troubled debt restructuring (“TDR”): A TDR is deemed to occur when the contractual terms of a loan agreement are modified by granting a concession to a borrower that is experiencing financial difficulty.

Unfunded commitments: Legally binding agreements to provide a defined level of financing until a specified future date.

U.S. GAAP: Accounting principles generally accepted in the United States of America. Accounting rules and conventions defining acceptable practices in preparing financial statements in the U.S.

U.S. Real Gross Domestic Product (“GDP”) Rate: An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

Variable interest entity (“VIE”): An entity that, by design, either (i) lacks sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties; or (ii) has equity investors that do not have (a) the ability to make significant decisions relating to the entity’s operations through voting rights, (b) the obligation to absorb the expected losses, and/or (c) the right to receive the residual returns of the entity.

Acronyms

ABS: Asset-backed securities
ACH: Automated Clearing House
ACL: Allowance for credit losses
AML: Anti-money laundering
AOCI: Accumulated other comprehensive income
ARRC: Alternative Reference Rates Committee
ASU: Accounting Standards Update
ASC: Accounting Standards Codification
ATM: Automated teller machine
AWS: Amazon Web Services, Inc.
BHC: Bank holding company
bps: Basis points
CAD: Canadian dollar
CAP: Compliance Assurance Process
CARES: Coronavirus Aid, Relief, and Economic Security
CCAR: Comprehensive Capital Analysis and Review
CCP: Central Counterparty Clearinghouse, or Central Clearinghouse
CDE: Community development entities
CECL: Current expected credit loss
CET1: Common equity Tier 1 capital
CFPB: Consumer Financial Protection Bureau
CFTC: Commodity Futures Trading Commission
CIBC: the Change in Bank Control Act
CISA: Cybersecurity and Infrastructure Security Agency
CMBS: Commercial mortgage-backed securities
CME: Chicago Mercantile Exchange
CPRA: California Privacy Rights Act
COBNA: Capital One Bank (USA), National Association
COEP: Capital One (Europe) plc
COF: Capital One Financial Corporation
CONA: Capital One, National Association
COSO: Committee of the Treadway Commission
COVID-19: Coronavirus disease of 2019
CRA: Community Reinvestment Act
CVA: Credit valuation adjustment
DCF: Discounted cash flow
DFAST: Dodd-Frank Act Stress Tests
DIB: Diversity Inclusion and Belonging
DIF: Deposit Insurance Fund
DRR: Designated Reserve Ratio
DVA: Debit valuation adjustment
EGRRCPA: Economic Growth, Regulatory Relief, and Consumer Protection Act
EU: European Union

EU GDPR: EU General Data Protection Regulation
EUR: Euro
Fannie Mae: Federal National Mortgage Association
FASB: Financial Accounting Standards Board
FCA: U.K. Financial Conduct Authority
FCM: Futures commission merchant
FDIC: Federal Deposit Insurance Corporation
FDICIA: Federal Deposit Insurance Corporation Improvement Act of 1991
FFIEC: Federal Financial Institutions Examination Council
FHC: Financial Holding Company
FHLB: Federal Home Loan Banks
FICO: Fair Isaac Corporation
FinCEN: Financial Crimes Enforcement Network
Fitch: Fitch Ratings
FSOC: The Financial Stability Oversight Council
Freddie Mac: Federal Home Loan Mortgage Corporation
FVC: Fair Value Committee
GAAP: Generally accepted accounting principles in the U.S.
GBP: Pound sterling
GDP: U.S. Real Gross Domestic Product
GDPR: General Data Protection Regulation
Ginnie Mae: Government National Mortgage Association
GLBA: Gramm-Leach Bliley Act
G-SIB: Global systemically important banks
GSE or Agency: Government-sponsored enterprise
HQLA: High-Quality Liquid Assets
IBA: ICE Benchmark Administration
ICE: Intercontinental Exchange
IRM: Independent Risk Management
IRS: Internal Revenue Service
ISDA: International Swaps and Derivatives Association
LCH: LCH Group
LCR: Liquidity coverage ratio
LIBOR: London Interbank Offered Rate
LLC: Limited liability company
LTV: Loan-to-Value
MDL: Multi-district litigation
Moody's: Moody's Investors Service
MSRs: Mortgage servicing rights
NSFR: Net stable funding ratio
NYSE: New York Stock Exchange
OCC: Office of the Comptroller of the Currency
OCI: Other comprehensive income
OTC: Over-the-counter

PCA: Prompt corrective action
PCAOB: Public Company Accounting Oversight Board
PCCR: Purchased credit card relationship
PCD: Purchased Credit-Deteriorated
PIPEDA: Personal Information Protection and Electronic Document Act
PPI: Payment protection insurance
PSU: Performance share units
RMBS: Residential mortgage-backed securities
RSU: Restricted stock unit
S&P: Standard & Poor's
SEC: U.S. Securities and Exchange Commission
SOFR: Secured Overnight Financing Rate
TCE: Tangible common equity
TDR: Troubled debt restructuring
TILA: Truth in Lending Act
U.K.: United Kingdom
U.K. GDPR: U.K. General Data Protection Regulation
U.S.: United States of America
USD: United States Dollar
VAC: Valuations Advisory Committee
VIE: Variable interest entity
XBRL: Extensible business reporting language

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

For a discussion of the quantitative and qualitative disclosures about market risk, see “Part II—Item 7. MD&A—Market Risk Profile.”

Item 8. Financial Statements and Supplementary Data

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Capital One Financial Corporation (the "Company" or "Capital One") is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the Company's principal executive and principal financial officers, or persons performing similar functions, and effected by the Company's Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

Capital One's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Company's assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that the Company's receipts and expenditures are being made only in accordance with authorizations of the Company's management and directors; and (iii) 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 its financial statements.

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

Management conducted an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2022, based on the framework in "2013 Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), commonly referred to as the "2013 Framework."

Based on this assessment, management concluded that, as of December 31, 2022, the Company's internal control over financial reporting was effective based on the criteria established by COSO in the 2013 Framework. Additionally, based upon management's assessment, the Company determined that there were no material weaknesses in its internal control over financial reporting as of December 31, 2022.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2022, has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their accompanying report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022.

/s/ RICHARD D. FAIRBANK

Richard D. Fairbank
Chair and Chief Executive Officer

/s/ ANDREW M. YOUNG

Andrew M. Young
Chief Financial Officer

February 24, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Capital One Financial Corporation:

Opinion on Internal Control over Financial Reporting

We have audited Capital One Financial Corporation's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Capital One Financial Corporation (the "Company") maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Capital One Financial Corporation as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and our report dated February 24, 2023 expressed an unqualified opinion thereon.

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 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/ Ernst & Young LLP

Tysons, Virginia
February 24, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Capital One Financial Corporation:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Capital One Financial Corporation (the “Company”) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, changes in stockholders’ equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have 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, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 24, 2023 expressed an unqualified opinion thereon.

Adoption of New Accounting Standard

As discussed in Note 1 and Note 4 to the consolidated financial statements, the Company changed its method for accounting for credit losses in 2021.

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 Matter

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 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 the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Allowance for credit losses—Credit Card and Consumer Banking

Description of the Matter

On December 31, 2022, the Company’s allowance for the credit card and consumer banking portfolios was \$8.3 billion and \$1.9 billion, respectively. As more fully described in Note 1 and Note 4 of the consolidated financial statements, the allowance for credit losses (ACL or allowance) represents management’s current estimate of expected credit losses over the contractual terms of the Company’s held for investment (HFI) loan portfolios as of the balance sheet date and is comprised of two elements. The first is ‘quantitative’ and involves the use of complex econometric statistical loss forecasting models tailored to each portfolio based on, among other things, expected economic conditions; historical loss, recovery, and paydown experience; account seasoning; and the value of collateral underlying secured loans. The second is ‘qualitative’ and involves factors that represent management’s judgment of the imprecision and risks inherent in the processes and assumptions used in establishing the allowance for credit losses. Auditing the allowance for the credit card and consumer banking portfolios was especially challenging and highly judgmental due to the significant complexity of the loss forecasting models used in the quantitative element and the significant judgment required in establishing the qualitative element. The qualitative element requires management to make significant judgments regarding current and forward-looking conditions, internal and external factors, and uncertainty as it relates to economic, model, or forecast risks, where not already captured in the modeled results.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of the internal controls over the ACL process, including, among others, controls over the development, operation, and monitoring of loss forecasting models and management review controls over key assumptions and qualitative judgments used in reviewing the final credit card and consumer banking allowance results, including the economic forecast. Our tests of controls included observation of certain of management’s quarterly ACL governance meetings, at which key management judgments, qualitative adjustments, and final ACL results are subjected to critical challenge by management groups independent of the group responsible for producing the ACL estimate.

We involved EY specialists in testing management’s credit card and consumer banking econometric statistical loss forecasting models including evaluating model methodology, model performance and testing key modeling assumptions as well as model governance and the economic forecast used by the ACL models. We compared actual loss history with prior forecasts at a disaggregated loan portfolio level to evaluate the reasonableness of management’s consumer forecasts (e.g., look-back analysis).

We performed sensitivity analysis on the ACL, charge-off and delinquency rates, and coverage ratios used within each segment of the credit card and consumer banking allowance. Our audit response also included specific substantive tests of management’s process to measure credit card and consumer banking qualitative factors, including those related to the significant judgments made by management outlined above. We compared calculations to alternative model scenarios and industry peer data and compared qualitative factors to prior periods and prior economic cycles. We also evaluated if credit card and consumer banking allowance qualitative factors were applied based on a comprehensive framework and that all available information was considered, well-documented, and consistently applied.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 1994.

Tysons, Virginia
February 24, 2023

**CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF INCOME**

<i>(Dollars in millions, except per share-related data)</i>	Year Ended December 31,		
	2022	2021	2020
Interest income:			
Loans, including loans held for sale	\$ 28,910	\$ 24,263	\$ 24,074
Investment securities	1,884	1,446	1,877
Other	443	60	82
Total interest income	31,237	25,769	26,033
Interest expense:			
Deposits	2,535	956	2,165
Securitized debt obligations	384	119	232
Senior and subordinated notes	1,074	488	679
Other borrowings	130	35	44
Total interest expense	4,123	1,598	3,120
Net interest income	27,114	24,171	22,913
Provision (benefit) for credit losses	5,847	(1,944)	10,264
Net interest income after provision for credit losses	21,267	26,115	12,649
Non-interest income:			
Interchange fees, net	4,606	3,860	3,017
Service charges and other customer-related fees	1,625	1,578	1,243
Other	905	826	1,350
Total non-interest income	7,136	6,264	5,610
Non-interest expense:			
Salaries and associate benefits	8,425	7,421	6,805
Occupancy and equipment	2,050	2,003	2,118
Marketing	4,017	2,871	1,610
Professional services	1,807	1,440	1,312
Communications and data processing	1,379	1,262	1,215
Amortization of intangibles	70	29	60
Other	1,415	1,544	1,936
Total non-interest expense	19,163	16,570	15,056
Income from continuing operations before income taxes	9,240	15,809	3,203
Income tax provision	1,880	3,415	486
Income from continuing operations, net of tax	7,360	12,394	2,717
Income (loss) from discontinued operations, net of tax	0	(4)	(3)
Net income	7,360	12,390	2,714
Dividends and undistributed earnings allocated to participating securities	(88)	(105)	(20)
Preferred stock dividends	(228)	(274)	(280)
Issuance cost for redeemed preferred stock	0	(46)	(39)
Net income available to common stockholders	\$ 7,044	\$ 11,965	\$ 2,375
Basic earnings per common share:			
Net income from continuing operations	\$ 17.98	\$ 27.05	\$ 5.20
Income (loss) from discontinued operations	0.00	(0.01)	(0.01)
Net income per basic common share	\$ 17.98	\$ 27.04	\$ 5.19
Diluted earnings per common share:			
Net income from continuing operations	\$ 17.91	\$ 26.95	\$ 5.19
Income (loss) from discontinued operations	0.00	(0.01)	(0.01)
Net income per diluted common share	\$ 17.91	\$ 26.94	\$ 5.18

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Net income	\$ 7,360	\$ 12,390	\$ 2,714
Other comprehensive income (loss), net of tax:			
Net unrealized gains (losses) on securities available for sale	(7,973)	(1,889)	1,259
Net unrealized gains (losses) on hedging relationships	(2,300)	(1,244)	1,008
Foreign currency translation adjustments	1	10	76
Other	(18)	3	3
Other comprehensive income (loss), net of tax	(10,290)	(3,120)	2,346
Comprehensive income (loss)	\$ (2,930)	\$ 9,270	\$ 5,060

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED BALANCE SHEETS

<i>(Dollars in millions, except per share-related data)</i>	December 31, 2022	December 31, 2021
Assets:		
Cash and cash equivalents:		
Cash and due from banks	\$ 5,193	\$ 4,164
Interest-bearing deposits and other short-term investments	25,663	17,582
Total cash and cash equivalents	30,856	21,746
Restricted cash for securitization investors	400	308
Securities available for sale (amortized cost of \$87.0 billion and \$94.9 billion and allowance for credit losses of \$3 million and \$1 million as of December 31, 2022 and 2021, respectively)	76,919	95,261
Loans held for investment:		
Unsecuritized loans held for investment	283,282	252,468
Loans held in consolidated trusts	29,049	24,872
Total loans held for investment	312,331	277,340
Allowance for credit losses	(13,240)	(11,430)
Net loans held for investment	299,091	265,910
Loans held for sale (\$191 million and \$1.0 billion carried at fair value as of December 31, 2022 and 2021, respectively)	203	5,888
Premises and equipment, net	4,351	4,210
Interest receivable	2,104	1,460
Goodwill	14,777	14,782
Other assets	26,548	22,816
Total assets	\$ 455,249	\$ 432,381
Liabilities:		
Interest payable	\$ 527	\$ 281
Deposits:		
Non-interest-bearing deposits	32,203	38,043
Interest-bearing deposits	300,789	272,937
Total deposits	332,992	310,980
Securitized debt obligations	16,973	14,994
Other debt:		
Federal funds purchased and securities loaned or sold under agreements to repurchase	883	820
Senior and subordinated notes	30,826	27,219
Other borrowings	33	53
Total other debt	31,742	28,092
Other liabilities	20,433	17,005
Total liabilities	402,667	371,352
Commitments, contingencies and guarantees (see Note 18)		
Stockholders' equity:		
Preferred stock (par value \$0.01 per share; 50,000,000 shares authorized; 4,975,000 shares issued and outstanding as of both December 31, 2022 and 2021)	0	0
Common stock (par value \$0.01 per share; 1,000,000,000 shares authorized; 690,334,422 and 685,057,944 shares issued as of December 31, 2022 and 2021, respectively; 381,318,702 and 413,858,537 shares outstanding as of December 31, 2022 and 2021, respectively)	7	7
Additional paid-in capital, net	34,725	34,112
Retained earnings	57,184	51,006
Accumulated other comprehensive income (loss)	(9,916)	374
Treasury stock, at cost (par value \$0.01 per share; 309,015,720 and 271,199,407 shares as of December 31, 2022 and 2021, respectively)	(29,418)	(24,470)
Total stockholders' equity	52,582	61,029
Total liabilities and stockholders' equity	\$ 455,249	\$ 432,381

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

<i>(Dollars in millions)</i>	Preferred Stock		Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balance as of December 31, 2019	4,975,000	\$ 0	672,969,391	\$ 7	\$ 32,980	\$ 40,340	\$ 1,156	\$ (16,472)	\$ 58,011
Cumulative effects from adoption of the CECL standard						(2,184)	(8)		(2,192)
Comprehensive income						2,714	2,346		5,060
Dividends—common stock ⁽¹⁾			32,466	0	3	(463)			(460)
Dividends—preferred stock						(280)			(280)
Purchases of treasury stock								(393)	(393)
Issuances of common stock and restricted stock, net of forfeitures			5,539,010	0	241				241
Exercises of stock options			1,391,970	0	62				62
Issuances of preferred stock	1,375,000	0			1,330				1,330
Redemptions of preferred stock	(1,375,000)	0			(1,336)	(39)			(1,375)
Compensation expense for restricted stock units and stock options					200				200
Balance as of December 31, 2020	4,975,000	\$ 0	679,932,837	\$ 7	\$ 33,480	\$ 40,088	\$ 3,494	\$ (16,865)	\$ 60,204
Comprehensive income (loss)						12,390	(3,120)		9,270
Dividends—common stock ⁽¹⁾			28,410	0	4	(1,152)			(1,148)
Dividends—preferred stock						(274)			(274)
Purchases of treasury stock								(7,605)	(7,605)
Issuances of common stock and restricted stock, net of forfeitures			4,178,919	0	253				253
Exercises of stock options			917,778	0	55				55
Issuances of preferred stock	2,100,000	0			2,052				2,052
Redemptions of preferred stock	(2,100,000)	0			(2,054)	(46)			(2,100)
Compensation expense for restricted stock units					322				322
Balance as of December 31, 2021	4,975,000	\$ 0	685,057,944	\$ 7	\$ 34,112	\$ 51,006	\$ 374	\$ (24,470)	\$ 61,029
Comprehensive income (loss)						7,360	(10,290)		(2,930)
Dividends—common stock ⁽¹⁾			33,511	0	4	(954)			(950)
Dividends—preferred stock						(228)			(228)
Purchases of treasury stock								(4,948)	(4,948)
Issuances of common stock and restricted stock, net of forfeitures			4,909,173	0	276				276
Exercises of stock options			333,794	0	19				19
Compensation expense for restricted stock units					314				314
Balance as of December 31, 2022	4,975,000	\$ 0	690,334,422	\$ 7	\$ 34,725	\$ 57,184	\$ (9,916)	\$ (29,418)	\$ 52,582

⁽¹⁾ We declared dividends per share on our common stock of \$0.60 in each quarter of 2022 and the fourth quarter of 2021, \$1.20 in the third quarter of 2021, \$0.40 in the first two quarters of both 2021 and 2020, and \$0.10 in the last two quarters of 2020.

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Operating activities:			
Income (loss) from continuing operations, net of tax	\$ 7,360	\$ 12,394	\$ 2,717
Income (loss) from discontinued operations, net of tax	0	(4)	(3)
Net income	7,360	12,390	2,714
Adjustments to reconcile net income (loss) to net cash from operating activities:			
Provision (benefit) for credit losses	5,847	(1,944)	10,264
Depreciation and amortization, net	3,210	3,481	3,501
Deferred tax provision (benefit)	(772)	605	(1,627)
Net securities losses (gains)	9	(2)	(25)
Gain on sales of loans	(196)	1	(6)
Stock-based compensation expense	314	331	203
Other	40	46	(520)
Loans held for sale:			
Originations and purchases	(8,822)	(9,141)	(10,055)
Proceeds from sales and paydowns	9,679	9,123	9,856
Changes in operating assets and liabilities:			
Changes in interest receivable	(641)	17	287
Changes in other assets	(2,973)	(4,114)	979
Changes in interest payable	246	(71)	(87)
Changes in other liabilities	511	1,594	1,212
Net change from discontinued operations	(3)	(6)	3
Net cash from operating activities	13,809	12,310	16,699
Investing activities:			
Securities available for sale:			
Purchases	(14,850)	(27,884)	(43,026)
Proceeds from paydowns and maturities	19,074	26,969	22,324
Proceeds from sales	2,570	2,776	812
Loans:			
Net changes in loans originated as held for investment	(35,885)	(33,833)	4,136
Principal recoveries of loans previously charged off	2,091	2,506	2,452
Net purchases of premises and equipment	(934)	(698)	(710)
Net cash used in acquisition activities	(1,176)	(669)	(7)
Net cash used in other investing activities	(628)	(668)	(822)
Net cash used in investing activities	(29,738)	(31,501)	(14,841)

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Financing activities:			
Deposits and borrowings:			
Changes in deposits	\$ 22,539	\$ 5,687	\$ 42,519
Issuance of securitized debt obligations	9,728	6,232	1,248
Maturities and paydowns of securitized debt obligations	(7,060)	(3,442)	(6,885)
Issuance of senior and subordinated notes and long-term FHLB advances	21,272	4,486	3,987
Maturities and paydowns of senior and subordinated notes and long-term FHLB advances	(15,561)	(3,851)	(8,156)
Changes in other borrowings	44	129	(6,674)
Common stock:			
Net proceeds from issuances	276	253	241
Dividends paid	(950)	(1,148)	(460)
Preferred stock:			
Net proceeds from issuances	0	2,052	1,330
Dividends paid	(228)	(274)	(280)
Redemptions	0	(2,100)	(1,375)
Purchases of treasury stock	(4,948)	(7,605)	(393)
Proceeds from share-based payment activities	19	55	62
Net cash from (used in) financing activities	25,131	474	25,164
Changes in cash, cash equivalents and restricted cash for securitization investors	9,202	(18,717)	27,022
Cash, cash equivalents and restricted cash for securitization investors, beginning of the period	22,054	40,771	13,749
Cash, cash equivalents and restricted cash for securitization investors, end of the period	<u>\$ 31,256</u>	<u>\$ 22,054</u>	<u>\$ 40,771</u>
Supplemental cash flow information:			
Non-cash items:			
Net transfers from loans held for investment to loans held for sale	\$ 697	\$ 4,843	\$ 2,192
Interest paid	3,609	2,158	3,580
Income tax paid	1,852	2,527	988

See Notes to Consolidated Financial Statements.

CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company

Capital One Financial Corporation, a Delaware Corporation established in 1994 and headquartered in McLean, Virginia, is a diversified financial services holding company with banking and non-banking subsidiaries. Capital One Financial Corporation and its subsidiaries (the “Company”) offer a broad array of financial products and services to consumers, small businesses and commercial clients through digital channels, branches, cafés and other distribution channels.

As of December 31, 2022, Capital One Financial Corporation’s principal operating subsidiary was Capital One, National Association (“CONA”). On October 1, 2022, the Company completed the merger of Capital One Bank (USA), National Association (“COBNA”), with and into CONA, with CONA as the surviving entity (the “Bank Merger”).

The Company is hereafter collectively referred to as “we,” “us” or “our.” References to the “Bank” shall mean and refer to (i) CONA from and after the Bank Merger and (ii) CONA and COBNA collectively prior to the Bank Merger.

We also offer products outside of the United States of America (“U.S.”) principally through Capital One (Europe) plc (“COEP”), an indirect subsidiary of CONA organized and located in the United Kingdom (“U.K.”), and through a branch of CONA in Canada. Both COEP and our Canadian branch of CONA have the authority to provide credit card loans.

Our principal operations are organized for management reporting purposes into three major business segments, which are defined primarily based on the products and services provided or the types of customer served: Credit Card, Consumer Banking and Commercial Banking. We provide details on our business segments, the integration of recent acquisitions, if any, into our business segments and the allocation methodologies and accounting policies used to derive our business segment results in “Note 17—Business Segments and Revenue from Contracts with Customers.”

Basis of Presentation and Use of Estimates

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the U.S. (“U.S. GAAP”). The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and in the related disclosures. These estimates are based on information available as of the date of the consolidated financial statements. While management makes its best judgments, actual amounts or results could differ from these estimates.

Principles of Consolidation

The consolidated financial statements include the accounts of Capital One Financial Corporation and all other entities in which we have a controlling financial interest. We determine whether we have a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity (“VOE”) or a variable interest entity (“VIE”). All significant intercompany account balances and transactions have been eliminated.

Voting Interest Entities

VOEs are entities that have sufficient equity and provide the equity investors voting rights that give them the power to make significant decisions relating to the entity’s operations. Since a controlling financial interest in an entity is typically obtained through ownership of a majority voting interest, we consolidate our majority-owned subsidiaries and other voting interest entities in which we hold, directly or indirectly, more than 50% of the voting rights or where we exercise control through other contractual rights.

Investments in which we do not hold a controlling financial interest but have significant influence over the entity’s financial and operating decisions are accounted for under the equity method. If we do not have significant influence, we measure equity investments at fair value with changes in fair value recorded through net income, except those that do not have a readily determinable fair value (for which a measurement alternative is applied). We report equity investments in other assets on our consolidated balance sheets and include our share of income or loss and dividends from those investments in other non-interest income in our consolidated statements of income.

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Variable Interest Entities

VIEs are entities that, by design, either (i) lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties; or (ii) have equity investors that do not have the ability to make significant decisions relating to the entity's operations through voting rights, or do not have the obligation to absorb the expected losses, or do not have the right to receive the residual returns of the entity. The entity that is deemed the primary beneficiary of a VIE is required to consolidate the VIE. An entity is deemed to be the primary beneficiary of a VIE if that entity has both (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance; and (ii) the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE.

In determining whether we are the primary beneficiary of a VIE, we consider both qualitative and quantitative factors regarding the nature, size and form of our involvement with the VIE, such as our role in establishing the VIE and our ongoing rights and responsibilities; our economic interests, including debt and equity investments, servicing fees and other arrangements deemed to be variable interests in the VIE; the design of the VIE, including the capitalization structure, subordination of interests, payment priority, relative share of interests held across various classes within the VIE's capital structure and the reasons why the interests are held by us.

We perform on-going reassessments to evaluate whether changes in an entity's capital structure or changes in the nature of our involvement with the entity result in a change to the VIE designation or a change to our consolidation conclusion. See "Note 5—Variable Interest Entities and Securitizations" for further details.

Balance Sheet Offsetting of Financial Assets and Liabilities

Derivative contracts that we execute bilaterally in the over-the-counter ("OTC") market or are centrally cleared are generally governed by enforceable master netting agreements where we generally have the right to offset exposure with the same counterparty. Either counterparty can generally request to net settle all contracts through a single payment upon default on, or termination of, any one contract. We elect to offset the derivative assets and liabilities under master netting agreements for balance sheet presentation where a right of setoff exists. For derivative contracts entered into under master netting agreements for which we have not been able to confirm the enforceability of the setoff rights, or those not subject to master netting agreements, we do not offset our derivative positions for balance sheet presentation. See "Note 9—Derivative Instruments and Hedging Activities" for more details.

We also elect to present securities purchased or sold under resale or repurchase agreements on a net basis when a legally enforceable master netting agreement exists and other applicable criteria are met. Security collateral received from or pledged to the counterparties are not eligible for netting and are presented gross in our consolidated balance sheet. See "Note 8—Deposits and Borrowings" and "Note 9—Derivative Instruments and Hedging Activities" for more details.

Cash and Cash Equivalents

Cash and cash equivalents include cash and due from banks, interest-bearing deposits and other short-term investments, all of which, if applicable, have stated maturities of three months or less when acquired.

Securities Resale and Repurchase Agreements

Securities purchased under resale agreements and securities loaned or sold under agreements to repurchase, principally U.S. government and agency obligations, are not accounted for as sales but as collateralized financing transactions and recorded at the amounts at which the securities were acquired or sold, plus accrued interest. We continually monitor the market value of these securities and deliver additional collateral to or obtain additional collateral from counterparties, as appropriate. See "Note 8—Deposits and Borrowings"

Investment Securities

Our investment portfolio consists primarily of the following: U.S. Treasury securities; U.S. government-sponsored enterprise or agency ("Agency") and non-agency residential mortgage-backed securities ("RMBS"); Agency commercial mortgage-backed securities ("CMBS"); and other securities. The accounting and measurement framework for our investment securities differs depending on the security classification.

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We classify securities as available for sale or held to maturity based on our investment strategy and management's assessment of our intent and ability to hold the securities until maturity. We did not have any securities that were classified as held to maturity as of December 31, 2022 and 2021.

We report securities available for sale on our consolidated balance sheets at fair value. The amortized cost of investment securities reflects the amount for which the security was acquired, adjusted for accrued interest, amortization of premiums, discounts, and net deferred fees and costs, any applicable fair value hedge accounting adjustments, collection of cash, and charge-offs. Unrealized gains or losses are recorded, net of tax, as a component of accumulated other comprehensive income ("AOCI"). Unamortized premiums, discounts and other basis adjustments for available for sale securities are generally recognized in interest income over the contractual lives of the securities using the interest method. However, premiums on certain callable investment securities are amortized to the earliest call date. We record purchases and sales of investment securities available for sale on a trade date basis. Realized gains or losses from the sale of debt securities are computed using the first-in first-out method of identification, and are included in non-interest income in our consolidated statements of income. We elect to present accrued interest for securities available for sale within interest receivable on our consolidated balance sheets.

An individual debt security is impaired when the fair value of the security is less than its amortized cost. If we intend to sell an available for sale security in an unrealized loss position or it is more likely than not that we will be required to sell the security prior to recovery of its amortized cost basis, any allowance for credit losses is reversed through our provision for credit losses and the difference between the amortized cost basis of the security and its fair value is recognized in our consolidated statements of income.

For impaired debt securities that we have both the intent and ability to hold, the securities are evaluated to determine if a credit loss exists. The allowance for credit losses on our investment securities is recognized through our provision for credit losses and limited by the unrealized losses of a security measured as the difference between the security's amortized cost and fair value. See further discussion below under the "Allowance for Credit Losses - Available for Sale Investment Securities" section of this Note.

Our investment portfolio also includes certain debt securities that, at the time of purchase, had experienced a more-than-insignificant deterioration in credit quality since origination. Such debt securities are accounted for in accordance with accounting guidance for purchased financial assets with credit deterioration and are herein referred to as purchased credit-deteriorated ("PCD") securities.

PCD securities require the recognition of an allowance for credit losses at the time of acquisition. The allowance for credit losses is not recognized in provision for credit losses. Instead, the purchase price and the initial allowance collectively represent the amortized cost basis of a PCD security. Any non-credit discount or premium at the date of acquisition is amortized into interest income over the remaining life of the security. Subsequent to the date of purchase, we remeasure the allowance for credit losses on the amortized cost basis using the same policies as for other debt securities available for sale and changes are recognized through our provision for credit losses. See further discussion below under the "Allowance for Credit Losses - Available for Sale Investment Securities" section of this Note.

We charge off any portion of an investment security that we determine is uncollectible. The amortized cost basis, excluding accrued interest, is charged off through the allowance for credit losses. Accrued interest is charged off as a reduction to interest income. Recoveries of previously charged off principal amounts are recognized in our provision for credit losses when received.

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Allowance for Credit Losses - Available for Sale Investment Securities

We maintain an allowance for credit losses that represents management's current estimate of expected credit losses over the contractual terms of our investment securities classified as available for sale. When an investment security available for sale is impaired due to credit factors, we recognize a provision for credit losses in our consolidated statements of income and an allowance for credit losses on our consolidated balance sheets. Credit losses recognized in the allowance for credit losses are limited to the amount by which the investment security's amortized cost basis exceeds its fair value. Investment securities in unrealized gain positions do not have an allowance for credit losses as the investment security could be sold at its fair value to prevent realization of any credit losses. We exclude accrued interest from the fair value and amortized cost basis of an investment security for purposes of measuring impairment. Charge-offs of uncollectible amounts of investment securities are deducted from the allowance for credit losses.

For certain of our securities available for sale, we have determined that there is no risk of impairment due to credit factors. These investment securities include high quality debt instruments that are issued and guaranteed by the United States government and its agencies, certain government-sponsored enterprises, and certain foreign sovereign governments or supranational organizations. Management performs periodic assessments to reevaluate this conclusion by considering any changes in historical losses, current conditions, and reasonable and supportable forecasts.

We evaluate impairment on a quarterly basis at the individual security level and determine whether any portion of the decline in fair value is due to a credit loss. We make this determination through the use of quantitative and qualitative analyses. Our qualitative analysis includes factors such as the extent to which fair value is less than amortized cost, any changes in the security's credit rating, past defaults or delayed payments, and adverse conditions impacting the security or issuer. A credit loss exists to the extent that management does not expect to recover the amortized cost basis.

For investment securities which require further assessment, we perform a quantitative analysis using a discounted cash flow methodology and compare the present value of expected future cash flows from the security available for sale to the security's amortized cost basis. Projected future cash flows reflect management's best estimate and are based on our understanding of past events, current conditions, reasonable and supportable forecasts, and are discounted by the security's effective interest rate adjusted for prepayments. The allowance for credit losses for investment securities reflects the difference by which the amortized cost basis exceeds the present value of future cash flows and is limited to the amount by which the security's amortized cost exceeds its fair value. See "Note 2—Investment Securities" for additional information.

Loans

Our loan portfolio consists of loans held for investment, including loans held in our consolidated securitization trusts, and loans held for sale and is divided into three portfolio segments: credit card, consumer banking and commercial banking loans. Credit card loans consist of domestic and international credit card loans. Consumer banking loans consist of auto and retail banking loans. Commercial banking loans consist of commercial and multifamily real estate loans as well as commercial and industrial loans.

Loan Classification

We classify loans as held for investment or held for sale based on our investment strategy and management's intent and ability with regard to the loans, which may change over time. The accounting and measurement framework for loans differs depending on the loan classification, whether we elect the fair value option, whether the loans are originated or purchased and whether purchased loans are considered to have experienced a more-than-insignificant deterioration in credit quality since origination. The presentation within the consolidated statements of cash flows is based on management's intent at acquisition or origination. Cash flows related to loans that are acquired or originated with the intent to hold for investment are included in cash flows from investing activities on our consolidated statements of cash flows. Cash flows related to loans that are acquired or originated with the intent to sell are included in cash flows from operating activities on our consolidated statements of cash flows.

Loans Held for Investment

Loans that we have the ability and intent to hold for the foreseeable future and loans associated with consolidated securitization transactions are classified as held for investment. Loans classified as held for investment, except for credit card loans, are reported at their amortized cost basis, excluding accrued interest. For these loans, we elect to present accrued interest within

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interest receivable on our consolidated balance sheets. For credit card loans classified as held for investment, earned finance charges and fees are included in either loans held for investment (if they have been billed to the customer) or interest receivable (if they have not yet been billed to the customer).

Interest income is recognized on performing loans on an accrual basis. We defer loan origination fees and direct loan origination costs on originated loans, premiums and discounts on purchased loans and loan commitment fees. We recognize these amounts in interest income as yield adjustments over the life of the loan and/or commitment period using the interest method. For credit card loans, loan origination fees and direct loan origination costs are amortized on a straight-line basis over a 12-month period. The amortized cost of loans held for investment is subject to our allowance for credit losses methodology described below under the “Allowance for Credit Losses - Loans Held for Investment” section of this Note.

Loans Held for Sale

Loans that we intend to sell or for which we do not have the ability and intent to hold for the foreseeable future are classified as held for sale. Multifamily commercial real estate loans originated with the intent to sell to government-sponsored enterprises are accounted for under the fair value option. We elect the fair value option on these loans as part of our management of interest rate risk along with the corresponding forward sale commitments. Loan origination fees and direct loan origination costs are recognized as incurred and are reported in other non-interest income in the consolidated statements of income. Interest income is calculated based on the loan's stated rate of interest and is reported in interest income in the consolidated statements of income. Fair value adjustments are recorded in other non-interest income in the consolidated statements of income.

All other loans classified as held for sale are recorded at the lower of cost or fair value. Loan origination fees, direct loan origination costs and any discounts and premiums are deferred until the loan is sold and are then recognized as part of the total gain or loss on sale. The fair value of loans held for sale is determined on an aggregate portfolio basis for each loan type. Fair value adjustments are recorded in other non-interest income in the consolidated statements of income.

If a loan is transferred from held for investment to held for sale, then on the transfer date, any decline in fair value related to credit is recorded as a charge-off and any remaining allowance for credit losses is reversed through our provision for credit losses. The loan is then reclassified to held for sale at its amortized cost at the date of the transfer. A valuation allowance is established, if needed, such that the loan held for sale is recorded at the lower of cost or fair value. Subsequent to transfer, we report write-downs or recoveries in fair value up to the carrying value at the date of transfer and realized gains or losses on loans held for sale in our consolidated statements of income as a component of other non-interest income. We calculate the gain or loss on loan sales as the difference between the proceeds received and the carrying value of the loans sold, net of the fair value of any interests retained.

Loans Acquired

All purchased loans, including loans transferred in a business combination, are initially recorded at fair value, which includes consideration of expected future losses, as of the date of the acquisition. To determine the fair value of loans at acquisition, we estimate discounted contractual cash flows due using an observable market rate of interest, when available, adjusted for factors that a market participant would consider in determining fair value. In determining fair value, contractual cash flows are adjusted to include prepayment estimates based upon historical payment trends, forecasted default rates and loss severities and other relevant factors. The difference between the fair value and the contractual cash flows is recorded as a loan premium or discount, which may relate to either credit or non-credit factors, at acquisition.

We account for purchased loans under the accounting guidance for purchased financial assets with credit deterioration when, at the time of purchase, the loans have experienced a more-than-insignificant deterioration in credit quality since origination. We refer to these loans which are accounted for under accounting guidance for purchased financial assets with more-than-insignificant deterioration in credit quality since origination as “PCD loans.”

We recognize an allowance for credit losses on purchased loans that have not experienced a more-than-insignificant deterioration in credit quality since origination at the time of purchase through earnings in a manner that is consistent with originated loans. The policies relating to the allowance for credit losses on loans is described below in the “Allowance for Credit Losses - Loans Held for Investment” section of this Note.

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Loan Modifications and Restructurings

As part of our loss mitigation efforts, we may provide modifications to a borrower experiencing financial difficulty to improve long-term collectability of the loan and to avoid the need for foreclosure or repossession of collateral, if any. Our loan modifications typically include short-term payment deferrals, an extension of the loan term, a reduction in the interest rate, a reduction in the loan balance, or a combination of these modifications. A loan modification in which a concession is granted to a borrower experiencing financial difficulty is accounted for and reported as a troubled debt restructuring (“TDR”). See “Note 3—Loans” for additional information on our loan modifications and restructurings, including those in response to the COVID-19 pandemic.

Delinquent and Nonperforming Loans

The entire balance of a loan is considered contractually delinquent if the minimum required payment is not received by the first statement cycle date equal to or following the due date specified on the customer’s billing statement. Delinquency is reported on loans that are 30 or more days past due. Interest and fees continue to accrue on past due loans until the date the loan is placed on nonaccrual status, if applicable. For loan modifications, delinquency and nonaccrual status are reported in accordance with the revised terms of the loans. We generally place loans on nonaccrual status when we believe the collectability of interest and principal is not reasonably assured.

Nonperforming loans generally include loans that have been placed on nonaccrual status. Loans classified as held for sale are excluded from nonperforming classification consideration.

Our policies for classifying loans as nonperforming, by loan category, are as follows:

- *Credit card loans:* As permitted by regulatory guidance issued by the Federal Financial Institutions Examination Council (“FFIEC”), our policy is generally to exempt credit card loans from being classified as nonperforming, as these loans are generally charged off in the period the account becomes 180 days past due. Consistent with industry conventions, we generally continue to accrue interest and fees on delinquent credit card loans until the loans are charged off.
- *Consumer banking loans:* We classify consumer banking loans as nonperforming when we determine that the collectability of all interest and principal on the loan is not reasonably assured, generally when the loan becomes 90 days past due.
- *Commercial banking loans:* We classify commercial banking loans as nonperforming as of the date we determine that the collectability of all interest and principal on the loan is not reasonably assured.
- *Modified loans and troubled debt restructurings:* Modified loans, including TDRs, that are current at the time of the restructuring remain in accrual status if there is demonstrated performance prior to the restructuring and continued performance under the modified terms is expected. Otherwise, the modified loan is classified as nonperforming.

Interest and fees accrued but not collected at the date a loan is placed on nonaccrual status are reversed against earnings. In addition, the amortization of deferred loan fees, costs, premiums and discounts is suspended. Interest and fee income are subsequently recognized only upon the receipt of cash payments. However, if there is doubt regarding the ultimate collectability of loan principal, cash received is generally applied against the principal balance of the loan. Nonaccrual loans are generally returned to accrual status when all principal and interest is current and repayment of the remaining contractual principal and interest is reasonably assured, or when the loan is both well-secured and in the process of collection and collectability is no longer doubtful.

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Charge-Offs

We charge off loans when we determine that the loan is uncollectible. The amortized cost basis, excluding accrued interest, is charged off as a reduction to the allowance for credit losses based on the time frames presented below. Accrued interest on loans other than credit card loans determined to be uncollectible is reversed as a reduction of interest income when the loan is classified as nonperforming. For credit card loans, accrued interest is charged off simultaneously with the charge off of other components of amortized cost and as a reduction of interest income. When received, recoveries of previously charged off amounts are recorded as an increase to the allowance for credit losses (see the “Allowance for Credit Losses - Loans Held for Investment” section of this Note for information on how we account for expected recoveries). Costs to recover charged off loans are recorded as collection expense and included in our consolidated statements of income as a component of other non-interest expense as incurred. Our charge-off time frames by loan type are presented below.

- *Credit card loans:* We generally charge off credit card loans in the period the account becomes 180 days past due. We charge off delinquent credit card loans for which revolving privileges have been revoked as part of loan workout when the account becomes 120 days past due. Credit card loans in bankruptcy are generally charged off by the end of the month following 30 days after the receipt of a complete bankruptcy notification from the bankruptcy court. Credit card loans of deceased account holders are generally charged off 5 days after receipt of notification.
- *Consumer banking loans:* We generally charge off consumer banking loans at the earlier of the date when the account is a specified number of days past due or upon repossession of the underlying collateral. Our charge-off period for auto loans is 120 days past due. Small business banking loans generally charge off at 120 days past due or based on the date the amortized cost basis is deemed uncollectible. Auto loans that have not been previously charged off where the borrower has filed for bankruptcy and the loan has not been reaffirmed charge off in the period that the loan is 60 days from the bankruptcy notification date, regardless of delinquency status. Auto loans that have not been previously charged off and have been discharged under Chapter 7 bankruptcy are charged off at the end of the month in which the bankruptcy discharge occurs. Remaining consumer loans generally are charged off within 40 days of receipt of notification from the bankruptcy court. Consumer loans of deceased account holders are charged off by the end of the month following 60 days of receipt of notification.
- *Commercial banking loans:* We charge off commercial loans in the period we determine that the amortized cost basis is uncollectible.

Allowance for Credit Losses - Loans Held for Investment

We maintain an allowance for credit losses (“allowance”) that represents management’s current estimate of expected credit losses over the contractual terms of our loans held for investment. We measure the allowance on a quarterly basis through consideration of past events, including historical experience, current conditions and reasonable and supportable forecasts.

We measure current expected credit losses over the contractual terms of our loans. The contractual terms are adjusted for expected prepayments but are not extended for renewals or extensions, except when an extension or renewal arises from a borrower option that is not unconditionally cancellable or through a TDR that is reasonably expected to occur.

We aggregate loans sharing similar risk characteristics into pools for purposes of measuring expected credit losses. Pools are reassessed periodically to confirm that all loans within each pool continue to share similar risk characteristics. Expected credit losses for loans that do not share similar risk characteristics with other financial assets are measured individually.

Expected recoveries of amounts previously charged off or expected to be charged off are recognized within the allowance, with a corresponding reduction to our provision for credit losses. At times expected recoveries may result in a negative allowance. We limit the allowance recovery expectations to amounts previously charged off and expected to be charged off. Charge-offs of uncollectible amounts result in a reduction to the allowance and recoveries of previously charged off amounts result in an increase to the allowance.

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When developing an estimate of expected credit losses, we use both quantitative and qualitative methods in considering all available information relevant to assessing collectability. This may include internal information, external information, or a combination of both relating to past events, current conditions, and reasonable and supportable forecasts. Significant judgment is applied to the development and duration of reasonable and supportable forecasts used in our estimation of lifetime losses. We estimate expected credit losses over the duration of those forecasts and then revert, on a rational and systematic basis, to historical losses at each relevant loss component of the estimate. Expected losses for contractual terms extending beyond the reasonable and supportable forecast and reversion periods are based on those historical losses.

Management will consider and may qualitatively adjust for conditions, changes and trends in loan portfolios that may not be captured in modeled results. These adjustments are referred to as qualitative factors and represent management's judgment of the imprecision and risks inherent in the processes and assumptions used in establishing the allowance for credit losses. Management's judgment may involve an assessment of current and forward-looking conditions including but not limited to changes in lending policies and procedures, nature and volume of the portfolio, external factors, and uncertainty as it relates to economic, model or forecast risks, where not already captured in the modeled results.

Expected credit losses for collateral-dependent loans are based on the fair value of the underlying collateral. When we intend to liquidate the collateral, the fair value of the collateral is adjusted for expected costs to sell. A loan is deemed to be a collateral-dependent loan when (i) we determine foreclosure or repossession of the underlying collateral is probable, or (ii) foreclosure or repossession is not probable, but the borrower is experiencing financial difficulty and we expect repayment to be provided substantially through the operation or sale of the collateral. The allowance for a collateral-dependent loan reflects the difference between the loan's amortized cost basis and the fair value (less selling costs, where applicable) of the loan's underlying collateral.

Our credit card and consumer banking loan portfolios consist of smaller-balance, homogeneous loans. The consumer banking loan portfolio is divided into two primary portfolio segments: auto loans and retail banking loans. We assess our credit card and consumer banking loan portfolios based on common risk characteristics, such as origination year, contract type, interest rate, borrower credit score and geography. The commercial banking loan portfolio is primarily composed of larger-balance, non-homogeneous loans. These loans are subject to reviews that result in internal risk ratings. In assessing the risk rating of a particular commercial banking loan, among the factors we consider are the financial condition of the borrower, geography, collateral performance, historical loss experience and industry-specific information that management believes is relevant in determining and measuring expected credit losses. Subjective assessment and interpretation are involved. Emphasizing one factor over another or considering additional factors could impact the risk rating assigned to that commercial banking loan.

For consumer banking and commercial banking loans, the contractual period typically does not include renewals or extensions because the renewals and extensions are generally not at the borrower's exclusive option to exercise. The undrawn credit exposure associated with our credit card loans is unconditionally cancellable. For this reason, expected credit losses are measured based only on the drawn balance at each quarterly measurement date and not on the undrawn exposure. Because credit card loans do not have a defined contractual life, management estimates both the volume and application of payments to determine a contractual life of the drawn balance at the measurement date over which expected credit losses are developed for credit card loans.

With the exception of credit card loans, we have made a policy election to not measure an allowance on accrued interest for loans held for investment because we reverse uncollectible accrued interest in a timely manner. See the "Delinquent and Nonperforming Loans" and "Charge-Offs - Loans" sections of this Note for information on what we consider timely. For credit card loans, we do not make this election, as we reserve for uncollectible accrued interest relating to credit card loans in the allowance.

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The allowance related to credit card and consumer banking loans assessed on a pooled basis is based on a modeled calculation, which is supplemented by management judgment as described above. Because of the homogeneous nature of our consumer loan portfolios, the allowance is based on the aggregated portfolio segment evaluations. The allowance is established through a process that begins with estimates of historical losses in each pool based upon various statistical analyses, with adjustments for current conditions and reasonable and supportable forecasts of conditions, which includes expected economic conditions. Loss forecast models are utilized to estimate expected credit losses and consider several portfolio indicators including, but not limited to, expected economic conditions, historical loss experience, account seasoning, the value of collateral underlying secured loans, estimated foreclosures or defaults based on observable trends, delinquencies, bankruptcy filings, unemployment, borrower credit scores and general business trends. Management also considers an evaluation of overall portfolio credit quality based on indicators such as changes in our credit evaluation, underwriting and collection management policies, the effect of other external factors such as competition and legal and regulatory requirements, general economic conditions and business trends, and uncertainties in forecasting and modeling techniques used in estimating our allowance.

The allowance related to commercial banking loans assessed on a pooled basis is based on our historical loss experience for loans with similar risk characteristics and consideration of the current credit quality of the portfolio, which is supplemented by management judgment as described above. These are adjusted for current conditions, and reasonable and supportable forecasts of conditions likely to cause future losses which vary from historical levels. We apply internal risk ratings to commercial banking loans, which we use to assess credit quality and derive a total loss estimate based on an estimated probability of default (“default rate”) and loss given default (“loss severity”). Management may also apply judgment to adjust the loss factors derived, taking into consideration both quantitative and qualitative factors, including general economic conditions, industry-specific and geographic trends, portfolio concentrations, trends in internal credit quality indicators, and current and past underwriting standards that have occurred but are not yet reflected in the historical data underlying our loss estimates.

The allowance related to smaller-balance homogeneous credit card and consumer banking loans whose terms have been modified in a TDR is calculated on a pool basis using historical loss experience, adjusted for current conditions and reasonable and supportable forecasts of conditions likely to cause future losses which vary from historical levels for the respective class of assets. The allowance related to consumer banking loans that are assessed at a loan-level is determined based on key considerations that include the borrower’s overall financial condition, resources and payment history, prospects for support from financially responsible guarantors, and when applicable, the estimated realizable value of any collateral. The allowance related to commercial banking loans that are assessed at a loan-level is generally determined in accordance with our policy for estimating expected credit losses for collateral-dependent loans as described above.

Off-balance sheet credit exposures

In addition to the allowance, we also measure expected credit losses related to unfunded lending commitments that are not unconditionally cancellable in our Commercial Banking business. This reserve is measured using the same measurement objectives as the allowance for loans held for investment and is recorded within other liabilities on our consolidated balance sheets. These commitments are segregated by risk according to our internal risk rating scale, which we use to assess credit quality and derive an expected credit loss estimate. We assess these risk classifications, taking into consideration both quantitative and qualitative factors, including historical loss experience, adjusted for current conditions and reasonable and supportable forecasts of conditions likely to cause future losses which vary from historical levels, and utilization assumptions to estimate the reserve for unfunded lending commitments. Expected credit losses are not measured on unfunded lending commitments that are unconditionally cancellable, including all of our unfunded credit card and consumer banking lending commitments and certain of our unfunded commercial banking lending commitments.

Determining the appropriateness of the allowance and the reserve for unfunded lending commitments is complex and requires judgment by management about the effect of matters that are inherently uncertain. Subsequent evaluations of the loan portfolio, in light of the factors then prevailing, may result in significant changes in the reserve for unfunded lending commitments in future periods. See “Note 4—Allowance for Credit Losses and Reserve for Unfunded Lending Commitments” for additional information.

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Securitization of Loans

Our loan securitization activities primarily involve the securitization of credit card and auto loans, which provides a source of funding for us. See “Note 5—Variable Interest Entities and Securitizations” for additional details. Loan securitization involves the transfer of a pool of loan receivables from our portfolio to a trust. The trust then sells undivided interests in the pool of loan receivables to third-party investors through the issuance of debt securities and transfers the proceeds from the debt issuance to us as consideration for the loan receivables transferred. The debt securities are collateralized by the loan receivables transferred from our portfolio. We remove loans from our consolidated balance sheets if securitizations qualify as sales to unconsolidated VIEs, recognize assets retained and liabilities assumed at fair value and record a gain or loss on the transferred loans. Alternatively, if the transfer does not qualify as a sale but instead is considered a secured borrowing, the assets will remain on our consolidated balance sheets with an offsetting liability recognized for the amount of proceeds received.

Premises, Equipment and Leases

Premises and Equipment

Premises and equipment, including leasehold improvements, are carried at cost less accumulated depreciation and amortization. Land is carried at cost. We capitalize direct costs incurred during the application development stage of internally developed software projects. Depreciation and amortization expenses are calculated using the straight-line method over the estimated useful lives of the assets. Useful lives for premises and equipment are estimated as follows:

Premises and Equipment	Useful Lives
Buildings and improvements	5-39 years
Furniture and equipment	3-10 years
Computer software	3 years
Leasehold improvements	Lesser of the useful life or the remaining lease term

Expenditures for maintenance and repairs are expensed as incurred and gains or losses upon disposition are recognized in our consolidated statements of income as realized. See “Note 7—Premises, Equipment and Leases” for additional information.

Leases

Lease classification is determined at inception for all lease transactions with an initial term greater than one year. Operating leases are included as right-of-use (“ROU”) assets within other assets, and operating lease liabilities are classified as other liabilities on our consolidated balance sheets. Finance leases are included in premises and equipment, and other borrowings on our consolidated balance sheets. Our operating lease expense is included in occupancy and equipment within non-interest expense in our consolidated statements of income. Lease expense for minimum lease payments are recognized on a straight-line basis over the lease term. See “Note 7—Premises, Equipment and Leases” for additional information.

Goodwill and Other Intangible Assets

Goodwill represents the excess of the fair value of the consideration transferred, plus the fair value of any non-controlling interests in the acquiree, over the fair value of the net assets acquired and liabilities assumed as of the acquisition date and is assigned to one or more reporting units at acquisition. A reporting unit is defined as an operating segment, or a business unit that is one level below an operating segment. We have four reporting units: Credit Card, Auto Finance, Other Consumer Banking and Commercial Banking. Goodwill is not amortized but is tested for impairment at the reporting unit level annually or more frequently if adverse circumstances indicate that it is more likely than not that the carrying amount of a reporting unit exceeds its fair value. These indicators could include a sustained, significant decline in the Company’s stock price, a decline in expected future cash flows, significant disposition activity, a significant adverse change in the economic or business environment, and the testing for recoverability of a significant asset group, among others.

Intangible assets with finite useful lives are amortized on either an accelerated or straight-line basis over their estimated useful lives and are evaluated for impairment whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. See “Note 6—Goodwill and Other Intangible Assets” for additional information.

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Mortgage Servicing Rights

Mortgage servicing rights (“MSRs”) are initially recorded at fair value when mortgage loans are sold or securitized in the secondary market and the right to service these loans is retained for a fee. Commercial MSRs are subsequently accounted for under the amortization method. We evaluate for impairment as of each reporting date and recognize any impairment in other non-interest income. See “Note 6—Goodwill and Other Intangible Assets” for additional information.

Foreclosed Property and Repossessed Assets

Foreclosed property and repossessed assets obtained through our lending activities typically include commercial real estate or personal property, such as automobiles, and are recorded at net realizable value. For foreclosed property and repossessed assets, we generally reclassify the loan to repossessed assets upon repossession of the property in satisfaction of the loan. Net realizable value is the estimated fair value of the underlying collateral less estimated selling costs and is based on appraisals, when available. Subsequent to initial recognition, foreclosed property and repossessed assets are recorded at the lower of our initial cost basis or net realizable value, which is routinely monitored and updated. Any changes in net realizable value and gains or losses realized from disposition of the property are recorded in other non-interest expense. See “Note 16—Fair Value Measurement” for details.

Restricted Equity Investments

We have investments in Federal Home Loan Bank (“FHLB”) stock and in Federal Reserve Bank stock. These investments, which are included in other assets on our consolidated balance sheets, are not marketable, are carried at cost, and are reviewed for impairment if there is any indicator of impairment.

Litigation

We establish reserves for litigation-related matters that arise from the ordinary course of our business activities when it is probable that a loss associated with a claim or proceeding has been incurred and the amount of the loss can be reasonably estimated. Professional service costs, including fees for attorneys and experts, expected to be incurred in connection with a loss contingency are expensed as services are provided. See “Note 18—Commitments, Contingencies, Guarantees and Others” for additional information.

Customer Rewards Reserve

We offer products, primarily credit cards, which include programs that allow members to earn rewards based on account activity that can be redeemed for cash (primarily in the form of statement credits), gift cards, travel, or covering eligible charges. The amount of reward that a customer earns varies based on the terms and conditions of the rewards program and product. When rewards are earned by a customer, rewards expense is generally recorded as an offset to interchange income, with a corresponding increase to the customer rewards reserve. The customer rewards reserve is computed based on the estimated future cost of earned rewards that are expected to be redeemed and is reduced as rewards are redeemed. In estimating the customer rewards reserve, we consider historical redemption and spending behavior, as well as the terms and conditions of the current rewards programs, among other factors. Our customer rewards reserve assumes the vast majority of all rewards earned will eventually be redeemed.

Revenue Recognition

Interest Income and Fees

Interest income and fees on loans and investment securities are recognized based on the contractual provisions of the underlying arrangements.

Loan origination fees, direct loan origination costs, premiums and discounts on loans held for investment are deferred and generally amortized into interest income as yield adjustments over the contractual life and/or commitment period using the interest method. Costs deferred include, among other things, incentives paid to our network of auto dealers for loan referrals. In certain circumstances, we elect to factor prepayment estimates into the calculation of the constant effective yield necessary to apply the interest method. Prepayment estimates are based on historical prepayment data, existing and forecasted interest rates,

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and economic data. For credit card loans, loan origination fees and direct loan origination costs are amortized on a straight-line basis over a 12-month period.

Unamortized premiums, discounts and other basis adjustments on investment securities are generally recognized in interest income over the contractual lives of the securities using the interest method. However, premiums for certain callable investment securities are amortized to the earliest call date.

Finance charges and fees on credit card loans are recorded in revenue when earned and presented on our consolidated balance sheets within either loan receivables (if they have been billed to the customer) or interest receivable (if they have not yet been billed to the customer). Annual membership fees are classified as service charges and other customer-related fees in our consolidated statements of income and are deferred and amortized into income over 12 months on a straight-line basis.

Interchange Income

Interchange income generally represents fees for standing ready to authorize and providing settlement on credit and debit card transactions processed through the MasterCard® (“MasterCard”) and Visa® (“Visa”) interchange networks. The levels and structure of interchange rates set by MasterCard and Visa can vary based on cardholder purchase volumes, among other factors. We recognize interchange income upon settlement. See “Note 17—Business Segments and Revenue from Contracts with Customers” for additional details.

Card Partnership Agreements

We have contractual agreements with certain retailers and other partners to provide lending and other services to a mutual customer base. We primarily issue private-label and cobrand credit card loans to these customers over the terms of the partnership agreements.

Certain partners assist in or perform marketing activities on our behalf and promote our products and services to their customers. As compensation for providing these services, we often pay royalties, bounties or other special bonuses to these partners. Our payments to partners are generally recorded as reductions of revenue or as marketing expenses, depending on their nature. Our credit card partnership agreements may also provide for profit or revenue sharing payments which are presented as a reduction of the related revenue line item(s) when owed to the partner.

When a partner agrees to share a portion of the credit losses associated with the partnership, we evaluate the contractual provisions for the loss share payments as well as applicable accounting guidance to determine whether to present the sharing of losses on a gross or net basis in our consolidated financial statements. When loss sharing amounts due from partners are presented on a net basis, they are recorded as a reduction to our provision for credit losses in our consolidated statements of income and reduce the charge-off amounts that we report. The allowance for credit losses attributable to these portfolios is also reduced by the expected reimbursements from these partners for loss sharing amounts. See “Note 4—Allowance for Credit Losses and Reserve for Unfunded Lending Commitments” for additional information related to our loss sharing arrangements.

Collaborative Arrangements

A collaborative arrangement is a contractual arrangement that involves a joint operating activity between two or more parties that are active participants in the activity. These parties are exposed to significant risks and rewards based upon the economic success of the joint operating activity. We assess each of our partnership agreements with profit, revenue or loss sharing payments to determine if a collaborative arrangement exists and, if so, how revenue generated from third parties, costs incurred and transactions between participants in the collaborative arrangement should be accounted for and reported on our consolidated financial statements.

One partnership agreement met the definition of a collaborative arrangement as of December 31, 2021 and 2020. This agreement was amended in the first quarter of 2022. While we continue to share a fixed percentage of revenues consisting of finance charges and late fees with the partner, and the partner is required to reimburse us for a fixed percentage of credit losses incurred, the amended agreement does not meet the definition of a collaborative arrangement. Revenues and losses related to the partner’s credit card program and partnership agreement are reported on a net basis in our consolidated financial statements. Revenue sharing amounts attributable to the partner are recorded as an offset against total net revenue in our consolidated statements of income. Interest income was reduced by \$1.0 billion and \$1.1 billion in the years ended December 31, 2021 and

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2020, respectively, for amounts earned by the partner during the years this agreement met the definition of a collaborative arrangement. The impact of all of our loss sharing arrangements that are presented on a net basis is included in “Note 4—Allowance for Credit Losses and Reserve for Unfunded Lending Commitments.”

Stock-Based Compensation

We are authorized to issue stock-based compensation to employees and directors in various forms, primarily as restricted stock units (“RSUs”), performance share units (“PSUs”) and stock options. In addition, we also issue cash-settled RSUs which are not counted against the common shares reserved for issuance or available for issuance because they are settled in cash.

For awards settled in shares, we generally recognize compensation expense on a straight-line basis over the award’s requisite service period based on the fair value of the award at the grant date. If an award settled in shares contains a performance condition with graded vesting, we recognize compensation expense using the accelerated attribution method. Restricted stock units that are cash-settled are accounted for as liability awards which results in quarterly expense fluctuations based on changes in our stock price through the date that the awards are settled. Awards to participants that are eligible for retirement or become eligible during the vesting period are expensed immediately or over the time period between the grant date and when the participant becomes retirement eligible, respectively. Stock-based compensation expense is included in salaries and associate benefits in the consolidated statements of income.

For RSUs and performance share units, the fair value of stock-based compensation used in determining compensation expense will generally equal the fair market value of our common stock on the date of grant. Stock-based compensation expense for equity classified stock options is based on the grant date fair value, which is estimated using a Black-Scholes option pricing model. Certain share-settled awards have discretionary vesting conditions which result in the remeasurement of these awards at fair value each reporting period and the potential for compensation expense to fluctuate with changes in our stock price. See “Note 13—Stock-Based Compensation Plans” for additional details.

Marketing Expenses

Marketing expense includes the cost of our various promotional efforts to attract and retain customers such as advertising, promotional materials, and certain customer incentives, including spend-based bonuses. We expense marketing costs as incurred.

Income Taxes

We recognize the current and deferred tax consequences of all transactions that have been recognized in the financial statements using the provisions of the enacted tax laws. Current income tax expense represents our estimated taxes to be paid or refunded for the current period and includes income tax expense related to our uncertain tax positions, as well as tax-related interest and penalties. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. We record valuation allowances to reduce deferred tax assets to the amount that is more likely than not to be realized. We record the effect of remeasuring deferred tax assets and liabilities due to a change in tax rates or laws as a component of income tax expense related to continuing operations for the period in which the change is enacted. We subsequently release income tax effects stranded in AOCI using a portfolio approach. Income tax benefits are recognized when, based on their technical merits, they are more likely than not to be sustained upon examination. The amount recognized is the largest amount of benefit that is more likely than not to be realized upon settlement. See “Note 15—Income Taxes” for additional details.

Earnings Per Share

Earnings per share is calculated and reported under the “two-class” method. The “two-class” method is an earnings allocation method under which earnings per share is calculated for each class of common stock and participating security considering both dividends declared or accumulated and participation rights in undistributed earnings as if all such earnings had been distributed during the period. We have unvested share-based payment awards which have a right to receive non-forfeitable dividends, which are deemed to be participating securities.

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We calculate basic earnings per share by dividing net income, after deducting dividends on preferred stock and participating securities as well as undistributed earnings allocated to participating securities, by the average number of common shares outstanding during the period, net of any treasury shares. We calculate diluted earnings per share in a similar manner after consideration of the potential dilutive effect of common stock equivalents on the average number of common shares outstanding during the period. Common stock equivalents include stock options, restricted stock units, and performance share units. Common stock equivalents are calculated based upon the treasury stock method using an average market price of common shares during the period. Dilution is not considered when a net loss is reported. Common stock equivalents that have an antidilutive effect are excluded from the computation of diluted earnings per share. See “Note 12—Earnings Per Common Share” for additional details.

Derivative Instruments and Hedging Activities

All derivative financial instruments, whether designated in a qualifying hedge accounting relationship or not, are reported at their fair value on our consolidated balance sheets as either assets or liabilities. See “Note 9—Derivative Instruments and Hedging Activities” for additional details.

Fair Value

Fair value, also referred to as an exit price, is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. See “Note 16—Fair Value Measurement” for additional information.

Accounting for Acquisitions

We account for business combinations under the acquisition method of accounting. Under the acquisition method, tangible and intangible identifiable assets acquired, liabilities assumed and any non-controlling interest in the acquiree are recorded at fair value as of the acquisition date, with limited exceptions. Transaction costs and costs to restructure the acquired company are expensed as incurred. Goodwill is recognized as the excess of the acquisition price over the estimated fair value of the identifiable net assets acquired. Likewise, if the fair value of the net assets acquired is greater than the acquisition price, a bargain purchase gain is recognized and recorded in other non-interest income.

If the acquired set of activities and assets do not meet the accounting definition of a business, the transaction is accounted for as an asset acquisition. In an asset acquisition, the assets acquired are recorded at the purchase price plus any transaction costs incurred and no goodwill is recognized.

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Accounting Standards Adopted During the Twelve Months Ended December 31, 2022

Standard	Guidance	Adoption Timing and Financial Statement Impacts
Fair Value Hedging ASU No. 2022-01, Derivatives and Hedging (Topic 815): <i>Fair Value Hedging - Portfolio Layering Method</i> <i>Issued March 2022</i>	The amendments in this ASU establish the portfolio-layer method which provides flexibility to achieve fair value hedge accounting for multiple hedged layers within a single closed portfolio of financial assets.	We adopted this guidance in the second quarter of 2022 using the prospective method of adoption. Our adoption of this standard did not have an impact on our consolidated financial statements as any designation of portfolio layer method hedges would be applied prospectively.

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NOTE 2—INVESTMENT SECURITIES

Our investment securities portfolio consists of the following: U.S. government-sponsored enterprise or agency (“Agency”) and non-agency residential mortgage-backed securities (“RMBS”), agency commercial mortgage-backed securities (“CMBS”), U.S. Treasury securities and other securities. Agency securities include Government National Mortgage Association (“Ginnie Mae”) guaranteed securities, Federal National Mortgage Association (“Fannie Mae”) and Federal Home Loan Mortgage Corporation (“Freddie Mac”) issued securities. The carrying value of our investments in Agency and U.S. Treasury securities represented 97% and 96% of our total investment securities portfolio as of December 31, 2022 and 2021, respectively.

The table below presents the amortized cost, allowance for credit losses, gross unrealized gains and losses, and fair value aggregated by major security type as of December 31, 2022 and 2021. Accrued interest receivable of \$215 million and \$207 million as of December 31, 2022 and 2021, respectively, is not included in the table below.

Table 2.1: Investment Securities Available for Sale

	December 31, 2022				
	Amortized Cost	Allowance for Credit Losses	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<i>(Dollars in millions)</i>					
Investment securities available for sale:					
U.S. Treasury securities	\$ 5,129	\$ 0	\$ 2	\$ (90)	\$ 5,041
RMBS:					
Agency	71,212	0	53	(9,413)	61,852
Non-agency	653	(3)	93	(6)	737
Total RMBS	71,865	(3)	146	(9,419)	62,589
Agency CMBS	8,626	0	4	(760)	7,870
Other securities ⁽¹⁾	1,427	0	2	(10)	1,419
Total investment securities available for sale	<u>\$ 87,047</u>	<u>\$ (3)</u>	<u>\$ 154</u>	<u>\$ (10,279)</u>	<u>\$ 76,919</u>
	December 31, 2021				
	Amortized Cost	Allowance for Credit Losses	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<i>(Dollars in millions)</i>					
Investment securities available for sale:					
U.S. Treasury securities	\$ 9,419	\$ 0	\$ 23	\$ 0	\$ 9,442
RMBS:					
Agency	72,593	0	958	(931)	72,620
Non-agency	792	(1)	205	0	996
Total RMBS	73,385	(1)	1,163	(931)	73,616
Agency CMBS	9,237	0	195	(63)	9,369
Other securities ⁽¹⁾	2,830	0	6	(2)	2,834
Total investment securities available for sale	<u>\$ 94,871</u>	<u>\$ (1)</u>	<u>\$ 1,387</u>	<u>\$ (996)</u>	<u>\$ 95,261</u>

⁽¹⁾ Includes \$707 million and \$2.0 billion of asset-backed securities (“ABS”) as of December 31, 2022 and 2021, respectively. The remaining amount is primarily comprised of supranational bonds and foreign government bonds.

Investment Securities in a Gross Unrealized Loss Position

The table below provides the gross unrealized losses and fair value of our securities available for sale aggregated by major security type and the length of time that individual securities have been in a continuous unrealized loss position as of December 31, 2022 and 2021. The amounts include securities available for sale without an allowance for credit losses.

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Table 2.2: Securities in a Gross Unrealized Loss Position

<i>(Dollars in millions)</i>	December 31, 2022					
	Less than 12 Months		12 Months or Longer		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Investment securities available for sale without an allowance for credit losses:						
U.S. Treasury securities	\$ 2,464	\$ (57)	\$ 448	\$ (33)	\$ 2,912	\$ (90)
RMBS:						
Agency	23,271	(1,809)	36,803	(7,604)	60,074	(9,413)
Non-agency	14	(1)	3	0	17	(1)
Total RMBS	23,285	(1,810)	36,806	(7,604)	60,091	(9,414)
Agency CMBS	4,325	(267)	3,214	(493)	7,539	(760)
Other securities	555	(7)	76	(3)	631	(10)
Total investment securities available for sale in a gross unrealized loss position without an allowance for credit losses ⁽¹⁾	<u>\$ 30,629</u>	<u>\$ (2,141)</u>	<u>\$ 40,544</u>	<u>\$ (8,133)</u>	<u>\$ 71,173</u>	<u>\$ (10,274)</u>
	December 31, 2021					
	Less than 12 Months		12 Months or Longer		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Investment securities available for sale without an allowance for credit losses:						
RMBS:						
Agency	\$ 37,492	\$ (632)	\$ 8,606	\$ (299)	\$ 46,098	\$ (931)
Non-agency	3	0	1	0	4	0
Total RMBS	37,495	(632)	8,607	(299)	46,102	(931)
Agency CMBS	2,999	(36)	803	(27)	3,802	(63)
Other securities	1,207	(2)	0	0	1,207	(2)
Total investment securities available for sale in a gross unrealized loss position without an allowance for credit losses ⁽¹⁾	<u>\$ 41,701</u>	<u>\$ (670)</u>	<u>\$ 9,410</u>	<u>\$ (326)</u>	<u>\$ 51,111</u>	<u>\$ (996)</u>

⁽¹⁾ Consists of approximately 2,840 and 740 securities in gross unrealized loss positions as of December 31, 2022 and 2021, respectively.

Maturities and Yields of Investment Securities

The table below summarizes, as of December 31, 2022, the fair value of our investment securities by major security type and contractual maturity as well as the total fair value, amortized cost and weighted-average yields of our investment securities by contractual maturity. Because borrowers may have the right to call or prepay certain obligations, the expected maturities of our securities are likely to differ from the scheduled contractual maturities presented below. The weighted-average yield below represents the effective yield for the investment securities and is calculated based on the amortized cost of each security.

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Table 2.3: Contractual Maturities and Weighted-Average Yields of Securities

<i>(Dollars in millions)</i>	December 31, 2022				
	Due in 1 Year or Less	Due > 1 Year through 5 Years	Due > 5 Years through 10 Years	Due > 10 Years	Total
Fair value of securities available for sale:					
U.S. Treasury securities	\$ 0	\$ 5,041	\$ 0	\$ 0	\$ 5,041
RMBS ⁽¹⁾ :					
Agency	0	103	1,151	60,598	61,852
Non-agency	0	0	0	737	737
Total RMBS	0	103	1,151	61,335	62,589
Agency CMBS ⁽¹⁾	296	2,125	3,583	1,866	7,870
Other securities	424	965	30	0	1,419
Total securities available for sale	<u>\$ 720</u>	<u>\$ 8,234</u>	<u>\$ 4,764</u>	<u>\$ 63,201</u>	<u>\$ 76,919</u>
Amortized cost of securities available for sale	\$ 726	\$ 8,492	\$ 5,281	\$ 72,548	\$ 87,047
Weighted-average yield for securities available for sale	3.54%	2.12%	2.54%	2.35%	2.34%

⁽¹⁾ As of December 31, 2022, the weighted-average expected maturities of RMBS and Agency CMBS were 7.1 years and 5.0 years, respectively.

Table 2.4 Net Securities Gains or Losses and Proceeds from Sales

The following table presents the gross realized gains or losses and proceeds from the sale of securities available for sale for the years ended December 31, 2022, 2021 and 2020.

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Realized gains (losses):			
Gross realized gains	\$ 1	\$ 10	\$ 25
Gross realized losses	(10)	(8)	0
Net realized gains (losses)	<u>\$ (9)</u>	<u>\$ 2</u>	<u>\$ 25</u>
Total proceeds from sales	<u>\$ 2,570</u>	<u>\$ 2,776</u>	<u>\$ 812</u>

Securities Pledged and Received

We pledged investment securities totaling \$21.3 billion and \$20.8 billion as of December 31, 2022 and 2021, respectively. These securities are primarily pledged to secure Public Fund Deposits and FHLB advances, as well as for other purposes as required or permitted by law. We accepted pledges of securities with a fair value of approximately \$82 million and \$1 million as of December 31, 2022 and 2021, respectively, related to our derivative transactions.

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NOTE 3—LOANS

Our loan portfolio consists of loans held for investment, including loans held in our consolidated trusts, and loans held for sale. We further divide our loans held for investment into three portfolio segments: credit card, consumer banking and commercial banking. Credit card loans consist of domestic and international credit card loans. Consumer banking loans consist of auto and retail banking loans. Commercial banking loans consist of commercial and multifamily real estate as well as commercial and industrial loans. The information presented in the tables in this note excludes loans held for sale, which are carried at either fair value (if we elect the fair value option) or at the lower of cost or fair value.

Accrued interest receivable of \$1.9 billion and \$1.2 billion as of December 31, 2022 and 2021, respectively, is not included in the tables in this note. The table below presents the composition and aging analysis of our loans held for investment portfolio as of December 31, 2022 and 2021. The delinquency aging includes all past due loans, both performing and nonperforming.

Table 3.1: Loan Portfolio Composition and Aging Analysis

<i>(Dollars in millions)</i>	December 31, 2022					
	Current	Delinquent Loans			Total Delinquent Loans	Total Loans
		30-59 Days	60-89 Days	≥ 90 Days		
Credit Card:						
Domestic credit card	\$ 127,066	\$ 1,405	\$ 975	\$ 2,135	\$ 4,515	\$ 131,581
International card businesses	5,895	86	58	110	254	6,149
Total credit card	132,961	1,491	1,033	2,245	4,769	137,730
Consumer Banking:						
Auto	73,467	3,101	1,418	387	4,906	78,373
Retail banking	1,518	13	4	17	34	1,552
Total consumer banking	74,985	3,114	1,422	404	4,940	79,925
Commercial Banking:						
Commercial and multifamily real estate	37,417	0	1	35	36	37,453
Commercial and industrial	56,942	61	55	165	281	57,223
Total commercial banking	94,359	61	56	200	317	94,676
Total loans ⁽¹⁾	\$ 302,305	\$ 4,666	\$ 2,511	\$ 2,849	\$ 10,026	\$ 312,331
% of Total loans	96.79%	1.50%	0.80%	0.91%	3.21%	100.00%

<i>(Dollars in millions)</i>	December 31, 2021					
	Current	Delinquent Loans			Total Delinquent Loans	Total Loans
		30-59 Days	60-89 Days	≥ 90 Days		
Credit Card:						
Domestic credit card	\$ 106,312	\$ 773	\$ 528	\$ 1,110	\$ 2,411	\$ 108,723
International card businesses	5,836	77	50	86	213	6,049
Total credit card	112,148	850	578	1,196	2,624	114,772
Consumer Banking:						
Auto	72,221	2,385	933	240	3,558	75,779
Retail banking	1,807	35	7	18	60	1,867
Total consumer banking	74,028	2,420	940	258	3,618	77,646

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<i>(Dollars in millions)</i>	December 31, 2021					
	Delinquent Loans					
	Current	30-59 Days	60-89 Days	≥ 90 Days	Total Delinquent Loans	Total Loans
Commercial Banking:						
Commercial and multifamily real estate	35,100	92	35	35	162	35,262
Commercial and industrial	49,379	139	103	39	281	49,660
Total commercial banking	84,479	231	138	74	443	84,922
Total loans ⁽¹⁾	\$ 270,655	\$ 3,501	\$ 1,656	\$ 1,528	\$ 6,685	\$ 277,340
% of Total loans	97.59%	1.26%	0.60%	0.55%	2.41%	100.00%

⁽¹⁾ Loans include unamortized premiums, discounts, and deferred fees and costs totaling \$1.4 billion as of both December 31, 2022 and 2021.

The following table presents our loans held for investment that are 90 days or more past due that continue to accrue interest, loans that are classified as nonperforming and loans that are classified as nonperforming without an allowance as of December 31, 2022 and 2021. Nonperforming loans generally include loans that have been placed on nonaccrual status.

Table 3.2: 90+ Day Delinquent Loans Accruing Interest and Nonperforming Loans

<i>(Dollars in millions)</i>	December 31, 2022			December 31, 2021		
	≥ 90 Days and Accruing	Nonperforming Loans ⁽¹⁾	Nonperforming Loans Without an Allowance	≥ 90 Days and Accruing	Nonperforming Loans ⁽¹⁾	Nonperforming Loans Without an Allowance
Credit Card:						
Domestic credit card	\$ 2,135	N/A	\$ 0	\$ 1,110	N/A	\$ 0
International card businesses	105	\$ 9	0	82	\$ 10	0
Total credit card	2,240	9	0	1,192	10	0
Consumer Banking:						
Auto	0	595	0	0	344	0
Retail banking	0	39	8	0	47	4
Total consumer banking	0	634	8	0	391	4
Commercial Banking:						
Commercial and multifamily real estate	0	271	246	3	383	268
Commercial and industrial	0	430	294	0	316	257
Total commercial banking	0	701	540	3	699	525
Total	\$ 2,240	\$ 1,344	\$ 548	\$ 1,195	\$ 1,100	\$ 529
% of Total loans held for investment	0.72 %	0.43 %	0.18 %	0.43 %	0.40 %	0.19 %

⁽¹⁾ We recognized interest income for loans classified as nonperforming of \$66 million and \$43 million for the years ended December 31, 2022 and 2021 respectively.

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Credit Quality Indicators

We closely monitor economic conditions and loan performance trends to assess and manage our exposure to credit risk. We discuss these risks and our credit quality indicator for each portfolio segment below.

Credit Card

Our credit card loan portfolio is highly diversified across millions of accounts and numerous geographies without significant individual exposure. We therefore generally manage credit risk based on portfolios with common risk characteristics. The risk in our credit card loan portfolio correlates to broad economic trends, such as unemployment rates and the U.S. Real Gross Domestic Product (“GDP”) Rate, as well as consumers’ financial condition, all of which can have a material effect on credit performance. The key indicator we assess in monitoring the credit quality and risk of our credit card loan portfolio is delinquency trends, including an analysis of loan migration between delinquency categories over time.

The table below presents our credit card portfolio by delinquency status as of December 31, 2022 and 2021.

Table 3.3: Credit Card Delinquency Status

<i>(Dollars in millions)</i>	December 31, 2022			December 31, 2021		
	Revolving Loans	Revolving Loans Converted to Term	Total	Revolving Loans	Revolving Loans Converted to Term	Total
Credit Card:						
Domestic credit card:						
Current	\$ 126,811	\$ 255	\$ 127,066	\$ 105,985	\$ 327	\$ 106,312
30-59 days	1,388	17	1,405	760	13	773
60-89 days	964	11	975	519	9	528
Greater than 90 days	2,121	14	2,135	1,100	10	1,110
Total domestic credit card	131,284	297	131,581	108,364	359	108,723
International card businesses:						
Current	5,866	29	5,895	5,795	41	5,836
30-59 days	83	3	86	73	4	77
60-89 days	55	3	58	47	3	50
Greater than 90 days	106	4	110	82	4	86
Total international card businesses	6,110	39	6,149	5,997	52	6,049
Total credit card	\$ 137,394	\$ 336	\$ 137,730	\$ 114,361	\$ 411	\$ 114,772

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Consumer Banking

Our consumer banking loan portfolio consists of auto and retail banking loans. Similar to our credit card loan portfolio, the risk in our consumer banking loan portfolio correlates to broad economic trends as well as consumers' financial condition, all of which can have a material effect on credit performance. The key indicator we monitor when assessing the credit quality and risk of our auto loan portfolio is borrower credit scores as they measure the creditworthiness of borrowers. Delinquency trends are the key indicator we assess in monitoring the credit quality and risk of our retail banking loan portfolio.

The table below presents our consumer banking portfolio of loans held for investment by credit quality indicator as of December 31, 2022 and 2021. We present our auto loan portfolio by FICO scores at origination and our retail banking loan portfolio by delinquency status, which includes all past due loans, both performing and nonperforming.

Table 3.4: Consumer Banking Portfolio by Credit Quality Indicator

December 31, 2022										
Term Loans by Vintage Year										
<i>(Dollars in millions)</i>	2022	2021	2020	2019	2018	Prior	Total Term Loans	Revolving Loans	Revolving Loans Converted to Term	Total
Auto—At origination FICO scores:⁽¹⁾										
Greater than 660	\$17,872	\$14,246	\$ 5,354	\$ 2,595	\$ 1,032	\$ 328	\$41,427	\$ 0	\$ 0	\$41,427
621-660	6,212	5,060	2,257	1,167	513	185	15,394	0	0	15,394
620 or below	7,717	6,501	3,898	2,144	914	378	21,552	0	0	21,552
Total auto	31,801	25,807	11,509	5,906	2,459	891	78,373	0	0	78,373
Retail banking—Delinquency status:										
Current	166	128	82	133	127	470	1,106	408	4	1,518
30-59 days	2	1	0	0	0	2	5	8	0	13
60-89 days	0	1	0	0	0	1	2	2	0	4
Greater than 90 days	0	0	0	0	3	8	11	4	2	17
Total retail banking	168	130	82	133	130	481	1,124	422	6	1,552
Total consumer banking	\$31,969	\$25,937	\$11,591	\$ 6,039	\$ 2,589	\$ 1,372	\$79,497	\$ 422	\$ 6	\$79,925
December 31, 2021										
Term Loans by Vintage Year										
<i>(Dollars in millions)</i>	2021	2020	2019	2018	2017	Prior	Total Term Loans	Revolving Loans	Revolving Loans Converted to Term	Total
Auto—At origination FICO scores:⁽¹⁾										
Greater than 660	\$20,758	\$ 8,630	\$ 4,739	\$ 2,394	\$ 1,153	\$ 301	\$37,975	\$ 0	\$ 0	\$37,975
621-660	7,456	3,721	2,109	1,084	537	157	15,064	0	0	15,064
620 or below	9,522	6,336	3,767	1,840	949	326	22,740	0	0	22,740
Total auto	37,736	18,687	10,615	5,318	2,639	784	75,779	0	0	75,779
Retail banking—Delinquency status:										
Current	285	171	172	161	176	491	1,456	345	6	1,807
30-59 days	0	2	2	7	0	1	12	23	0	35
60-89 days	0	4	0	0	0	2	6	1	0	7
Greater than 90 days	0	1	0	1	1	9	12	4	2	18
Total retail banking	285	178	174	169	177	503	1,486	373	8	1,867

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December 31, 2021

	Term Loans by Vintage Year						Total Term Loans	Revolving Loans	Revolving Loans Converted to Term	Total
	2021	2020	2019	2018	2017	Prior				
<i>(Dollars in millions)</i>										
Total consumer banking	<u>\$38,021</u>	<u>\$18,865</u>	<u>\$10,789</u>	<u>\$ 5,487</u>	<u>\$ 2,816</u>	<u>\$ 1,287</u>	<u>\$77,265</u>	<u>\$ 373</u>	<u>\$ 8</u>	<u>\$77,646</u>

⁽¹⁾ Amounts represent period-end loans held for investment in each credit score category. Auto credit scores generally represent average FICO scores obtained from three credit bureaus at the time of application and are not refreshed thereafter. Balances for which no credit score is available or the credit score is invalid are included in the 620 or below category.

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Commercial Banking

The key credit quality indicator for our commercial loan portfolios is our internal risk ratings. We assign internal risk ratings to loans based on relevant information about the ability of the borrowers to repay their debt. In determining the risk rating of a particular loan, some of the factors considered are the borrower’s current financial condition, historical and projected future credit performance, prospects for support from financially responsible guarantors, the estimated realizable value of any collateral and current economic trends. The scale based on our internal risk rating system is as follows:

- *Noncriticized:* Loans that have not been designated as criticized, frequently referred to as “pass” loans.
- *Criticized performing:* Loans in which the financial condition of the obligor is stressed, affecting earnings, cash flows or collateral values. The borrower currently has adequate capacity to meet near-term obligations; however, the stress, left unabated, may result in deterioration of the repayment prospects at some future date.
- *Criticized nonperforming:* Loans that are not adequately protected by the current net worth and paying capacity of the obligor or the collateral pledged, if any. Loans classified as criticized nonperforming have a well-defined weakness, or weaknesses, which jeopardize the full repayment of the debt. These loans are characterized by the distinct possibility that we will sustain a credit loss if the deficiencies are not corrected and are generally placed on nonaccrual status.

We use our internal risk rating system for regulatory reporting, determining the frequency of credit exposure reviews, and evaluating and determining the allowance for credit losses. Generally, loans that are designated as criticized performing and criticized nonperforming are reviewed quarterly by management to determine if they are appropriately classified/rated and whether any impairment exists. Noncriticized loans are also generally reviewed, at least annually, to determine the appropriate risk rating. In addition, we evaluate the risk rating during the renewal process of any loan or if a loan becomes past due.

The following table presents our commercial banking portfolio of loans held for investment by internal risk ratings as of December 31, 2022 and 2021. The internal risk rating status includes all past due loans, both performing and nonperforming.

Table 3.5: Commercial Banking Portfolio by Internal Risk Ratings

<i>(Dollars in millions)</i>	December 31, 2022									
	Term Loans by Vintage Year						Total Term Loans	Revolving Loans	Revolving Loans Converted to Term	Total
	2022	2021	2020	2019	2018	Prior				
Internal risk rating:⁽¹⁾										
Commercial and multifamily real estate										
Noncriticized	\$ 9,527	\$ 4,086	\$ 1,161	\$ 1,671	\$ 1,280	\$ 2,898	\$20,623	\$ 13,254	\$ 25	\$33,902
Criticized performing . . .	814	376	202	412	302	1,061	3,167	113	0	3,280
Criticized nonperforming	101	22	0	13	19	116	271	0	0	271
Total commercial and multifamily real estate	<u>10,442</u>	<u>4,484</u>	<u>1,363</u>	<u>2,096</u>	<u>1,601</u>	<u>4,075</u>	<u>24,061</u>	<u>13,367</u>	<u>25</u>	<u>37,453</u>
Commercial and industrial										
Noncriticized	22,105	6,031	2,934	1,809	973	2,658	36,510	17,187	21	53,718
Criticized performing . . .	992	560	156	160	167	76	2,111	964	0	3,075
Criticized nonperforming	196	21	5	87	40	5	354	76	0	430
Total commercial and industrial	<u>23,293</u>	<u>6,612</u>	<u>3,095</u>	<u>2,056</u>	<u>1,180</u>	<u>2,739</u>	<u>38,975</u>	<u>18,227</u>	<u>21</u>	<u>57,223</u>
Total commercial banking . . .	<u>\$33,735</u>	<u>\$11,096</u>	<u>\$ 4,458</u>	<u>\$ 4,152</u>	<u>\$ 2,781</u>	<u>\$ 6,814</u>	<u>\$63,036</u>	<u>\$ 31,594</u>	<u>\$ 46</u>	<u>\$94,676</u>

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December 31, 2021

<i>(Dollars in millions)</i>	Term Loans by Vintage Year						Total Term Loans	Revolving Loans	Revolving Loans Converted to Term	Total
	2021	2020	2019	2018	2017	Prior				
Internal risk rating:⁽¹⁾										
Commercial and multifamily real estate										
Noncriticized	\$ 6,590	\$ 2,924	\$ 3,393	\$ 2,401	\$ 793	\$ 3,538	\$19,639	\$ 12,286	\$ 0	\$31,925
Criticized performing . . .	248	195	329	317	261	1,478	2,828	101	25	2,954
Criticized nonperforming	0	0	88	20	9	266	383	0	0	383
Total commercial and multifamily real estate	6,838	3,119	3,810	2,738	1,063	5,282	22,850	12,387	25	35,262
Commercial and industrial										
Noncriticized	12,662	7,039	5,506	2,750	1,730	3,033	32,720	14,310	59	47,089
Criticized performing . . .	279	188	838	207	120	167	1,799	456	0	2,255
Criticized nonperforming	32	52	85	93	6	10	278	38	0	316
Total commercial and industrial	12,973	7,279	6,429	3,050	1,856	3,210	34,797	14,804	59	49,660
Total commercial banking . . .	<u>\$ 19,811</u>	<u>\$ 10,398</u>	<u>\$ 10,239</u>	<u>\$ 5,788</u>	<u>\$ 2,919</u>	<u>\$ 8,492</u>	<u>\$ 57,647</u>	<u>\$ 27,191</u>	<u>\$ 84</u>	<u>\$ 84,922</u>

⁽¹⁾ Criticized exposures correspond to the “Special Mention,” “Substandard” and “Doubtful” asset categories defined by bank regulatory authorities.

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Troubled Debt Restructurings

As part of our loss mitigation efforts, we may provide short-term (one to twelve months) or long-term (greater than twelve months) modifications to a borrower experiencing financial difficulty to improve long-term collectability of the loan and to avoid the need for repossession or foreclosure of collateral.

We consider the impact of all loan modifications, whether or not that modification is classified as a troubled debt restructuring (“TDR”), when estimating the credit quality of our loan portfolio and establishing allowance levels. For our Commercial Banking customers, loan modifications are also considered in the assignment of an internal risk rating.

Additional guidance issued by the Federal Banking Agencies and contained in the Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act”) provided banking organizations with TDR relief for loan modifications to certain qualifying borrowers impacted by the Coronavirus Disease of 2019 (“COVID-19”) pandemic. The guidance in the CARES Act expired on January 1, 2022, at which time we also concurrently ceased applying the additional guidance issued by the Federal Banking Agencies. We adopted Accounting Standard Update (“ASU”) No. 2022-02 as of January 1, 2023, which eliminates the accounting guidance for TDRs.

Total recorded TDRs were \$2.7 billion and \$1.6 billion as of December 31, 2022 and 2021, respectively. TDRs classified as performing in our credit card and consumer banking loan portfolios totaled \$1.5 billion and \$1.1 billion as of December 31, 2022 and 2021, respectively. TDRs classified as performing in our commercial banking loan portfolio totaled \$595 million and \$192 million as of December 31, 2022 and 2021, respectively. Commitments to lend additional funds on loans modified in TDRs totaled \$219 million and \$168 million as of December 31, 2022 and 2021, respectively.

The following tables present the major modification types, amortized cost amounts and financial effects of loans modified in a TDR during the years ended December 31, 2022, 2021 and 2020.

Table 3.6: Troubled Debt Restructurings

	Total Loans Modified ⁽¹⁾	Year Ended December 31, 2022			
		% of TDR Activity ⁽²⁾	Average Rate Reduction	Term Extension	Average Term Extension (Months)
				% of TDR Activity ⁽²⁾	
<i>(Dollars in millions)</i>					
Credit Card:					
Domestic credit card	\$ 306	100 %	16.54 %	N/A	N/A
International card businesses	127	100	27.42	N/A	N/A
Total credit card	433	100	19.73	N/A	N/A
Consumer Banking:					
Auto	1,070	57	8.53	97 %	4
Retail banking	7	N/A	N/A	92	13
Total consumer banking	1,077	57	8.53	97	4
Commercial Banking:					
Commercial and multifamily real estate	385	8	0.28	84	13
Commercial and industrial	357	N/A	N/A	64	13
Total commercial banking	742	4	0.28	74	13
Total	\$ 2,252				

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		Year Ended December 31, 2021					
		Reduced Interest Rate		Term Extension		Balance Reduction	
<i>(Dollars in millions)</i>	Total Loans Modified ⁽¹⁾	% of TDR Activity ⁽²⁾	Average Rate Reduction	% of TDR Activity ⁽²⁾	Average Term Extension (Months)	% of TDR Activity ⁽²⁾	Gross Balance Reduction
Credit Card:							
Domestic credit card	\$ 154	100 %	15.90 %	N/A	N/A	N/A	N/A
International card businesses	123	100	27.70	N/A	N/A	N/A	N/A
Total credit card	<u>277</u>	100	21.15	N/A	N/A	N/A	N/A
Consumer Banking:							
Auto	371	43	8.72	93 %	4	0 %	\$ 1
Retail banking	3	13	2.94	30	42	N/A	N/A
Total consumer banking	<u>374</u>	42	8.70	93	4	0	1
Commercial Banking:							
Commercial and multifamily real estate	49	21	1.19	85	11	N/A	N/A
Commercial and industrial	112	N/A	N/A	30	6	N/A	N/A
Total commercial banking	<u>161</u>	6	1.19	46	9	N/A	N/A
Total	<u>\$ 812</u>						

		Year Ended December 31, 2020					
		Reduced Interest Rate		Term Extension		Balance Reduction	
<i>(Dollars in millions)</i>	Total Loans Modified ⁽¹⁾	% of TDR Activity ⁽²⁾	Average Rate Reduction	% of TDR Activity ⁽²⁾	Average Term Extension (Months)	% of TDR Activity ⁽²⁾	Gross Balance Reduction
Credit Card:							
Domestic credit card	\$ 243	100 %	15.94 %	N/A	N/A	N/A	N/A
International card businesses	168	100	27.38	N/A	N/A	N/A	N/A
Total credit card	<u>411</u>	100	20.61	N/A	N/A	N/A	N/A
Consumer Banking:							
Auto	536	11	5.68	95 %	3	0 %	\$ 1
Retail banking	5	11	10.86	20	8	N/A	N/A
Total consumer banking	<u>541</u>	11	5.73	94	3	0	1
Commercial Banking:							
Commercial and multifamily real estate	98	N/A	N/A	86	5	N/A	N/A
Commercial and industrial	439	4	0.14	52	21	4	7
Total commercial banking	<u>537</u>	3	0.14	58	17	3	7
Total	<u>\$ 1,489</u>						

⁽¹⁾ Represents the amortized cost of total loans modified in TDR at the end of the period in which they were modified. As not every modification type is included in the table above, the total percentage of TDR activity may not add up to 100%. Some loans may receive more than one type of modification.

⁽²⁾ Due to multiple modification types granted to some troubled borrowers, percentages may total more than 100% for certain loan types.

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Subsequent Defaults of Completed TDR Modifications

The following table presents the type, number and amortized cost of loans modified in a TDR that experienced a default during the period and had completed a modification event in the twelve months prior to the default. A default occurs if the loan is either 90 days or more delinquent, has been charged off as of the end of the period presented or has been reclassified from accrual to nonaccrual status.

Table 3.7: TDR—Subsequent Defaults

<i>(Dollars in millions)</i>	Year Ended December 31,					
	2022		2021		2020	
	Number of Contracts	Amount	Number of Contracts	Amount	Number of Contracts	Amount
Credit Card:						
Domestic credit card	37,029	\$ 75	18,694	\$ 35	32,639	\$ 69
International card businesses	74,432	79	58,914	87	58,363	87
Total credit card	111,461	154	77,608	122	91,002	156
Consumer Banking:						
Auto	16,100	285	8,847	136	5,877	77
Retail banking	1	1	9	0	10	1
Total consumer banking	16,101	286	8,856	136	5,887	78
Commercial Banking:						
Commercial and multifamily real estate	2	27	1	50	1	50
Commercial and industrial	5	56	7	120	15	130
Total commercial banking	7	83	8	170	16	180
Total	127,569	\$ 523	86,472	\$ 428	96,905	\$ 414

Loans Pledged

We pledged loan collateral of \$9.8 billion and \$10.3 billion to secure a portion of our FHLB borrowing capacity of \$19.9 billion and \$19.7 billion as of December 31, 2022 and 2021, respectively. We also pledged loan collateral of \$34.1 billion and \$26.5 billion to secure our Federal Reserve Discount Window borrowing capacity of \$19.7 billion and \$19.6 billion as of December 31, 2022 and 2021, respectively. In addition to loans pledged, we have securitized a portion of our credit card and auto loan portfolios. See “Note 5—Variable Interest Entities and Securitizations” for additional information.

Loans Held for Sale

Our total loans held for sale was \$203 million and \$5.9 billion as of December 31, 2022 and 2021, respectively. We originated for sale \$8.6 billion, \$9.1 billion and \$10.0 billion of commercial multifamily real estate loans in 2022, 2021 and 2020, respectively, and typically retain servicing rights upon the sale of these loans.

Revolving Loans Converted to Term Loans

For the years ended December 31, 2022 and 2021, we converted \$441 million and \$223 million of revolving loans to term loans, respectively, primarily in our domestic credit card and commercial banking loan portfolios.

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NOTE 4—ALLOWANCE FOR CREDIT LOSSES AND RESERVE FOR UNFUNDED LENDING COMMITMENTS

Our allowance for credit losses represents management’s current estimate of expected credit losses over the contractual terms of our loans held for investment as of each balance sheet date. Expected recoveries of amounts previously charged off or expected to be charged off are recognized within the allowance. Significant judgment is applied in our estimation of lifetime credit losses. When developing an estimate of expected credit losses, we use both quantitative and qualitative methods in considering all available information relevant to assessing collectability. This may include internal information, external information or a combination of both relating to past events, current conditions and reasonable and supportable forecasts. Our estimate of expected credit losses includes a reasonable and supportable forecast period of one year and then reverts over a one-year period to historical losses at each relevant loss component of the estimate. Management will consider and may qualitatively adjust for conditions, changes and trends in loan portfolios that may not be captured in modeled results. These adjustments are referred to as qualitative factors and represent management’s judgment of the imprecision and risks inherent in the processes and assumptions used in establishing the allowance for credit losses.

For credit card loans, accrued interest is charged off simultaneously with the charge off of other components of amortized cost as a reduction of revenue. Total net revenue was reduced by \$946 million, \$629 million and \$1.1 billion in 2022, 2021 and 2020, respectively, for finance charge and fees charged-off as uncollectible.

We have unfunded lending commitments in our Commercial Banking business that are not unconditionally cancellable by us and for which we estimate expected credit losses in establishing a reserve. This reserve is measured using the same measurement objectives as the allowance for loans held for investment. We build or release the reserve for unfunded lending commitments through the provision for credit losses in our consolidated statements of income, and the related reserve for unfunded lending commitments is included in other liabilities on our consolidated balance sheets.

See “Note 1—Summary of Significant Accounting Policies” for further discussion of the methodology and policy for determining our allowance for credit losses for each of our loan portfolio segments, as well as information on our reserve for unfunded lending commitments.

Allowance for Credit Losses and Reserve for Unfunded Lending Commitments Activity

The table below summarizes changes in the allowance for credit losses and reserve for unfunded lending commitments by portfolio segment for the years ended December 31, 2022, 2021 and 2020. Our allowance for credit losses increased by \$1.8 billion to \$13.2 billion as of December 31, 2022 from 2021.

Table 4.1: Allowance for Credit Losses and Reserve for Unfunded Lending Commitments Activity

<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking	Total
Allowance for credit losses:				
Balance as of December 31, 2019	\$ 5,395	\$ 1,038	\$ 775	\$ 7,208
Cumulative effects from adoption of the CECL standard	2,241	502	102	2,845
Finance charge and fee reserve reclassification ⁽¹⁾	462	0	0	462
Balance as of January 1, 2020	8,098	1,540	877	10,515
Charge-offs	(5,749)	(1,534)	(394)	(7,677)
Recoveries ⁽²⁾	1,479	956	17	2,452
Net charge-offs	(4,270)	(578)	(377)	(5,225)
Provision for credit losses	7,327	1,753	1,158	10,238
Allowance build for credit losses ⁽³⁾	3,057	1,175	781	5,013
Other changes ⁽⁴⁾	36	0	0	36
Balance as of December 31, 2020	\$ 11,191	\$ 2,715	\$ 1,658	\$ 15,564

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<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking	Total
Reserve for unfunded lending commitments:				
Balance as of December 31, 2019	0	5	130	135
Cumulative effects from adoption of the CECL standard	0	(5)	42	37
Balance as of January 1, 2020	0	0	172	172
Provision for losses on unfunded lending commitments	0	0	23	23
Balance as of December 31, 2020	0	0	195	195
Combined allowance and reserve as of December 31, 2020	\$ 11,191	\$ 2,715	\$ 1,853	\$ 15,759
Allowance for credit losses:				
Balance as of December 31, 2020	\$ 11,191	\$ 2,715	\$ 1,658	\$ 15,564
Charge-offs	(3,481)	(1,211)	(48)	(4,740)
Recoveries ⁽²⁾	1,525	935	46	2,506
Net charge-offs	(1,956)	(276)	(2)	(2,234)
Benefit for credit losses	(902)	(521)	(489)	(1,912)
Allowance release for credit losses	(2,858)	(797)	(491)	(4,146)
Other changes ⁽⁴⁾	12	0	0	12
Balance as of December 31, 2021	8,345	1,918	1,167	11,430
Reserve for unfunded lending commitments:				
Balance as of December 31, 2020	0	0	195	195
Provision (benefit) for losses on unfunded lending commitments	0	0	(30)	(30)
Balance as of December 31, 2021	0	0	165	165
Combined allowance and reserve as of December 31, 2021	\$ 8,345	\$ 1,918	\$ 1,332	\$ 11,595
Allowance for credit losses:				
Balance as of December 31, 2021	\$ 8,345	\$ 1,918	\$ 1,167	\$ 11,430
Charge-offs	(4,362)	(1,614)	(88)	(6,064)
Recoveries ⁽²⁾	1,314	760	17	2,091
Net charge-offs	(3,048)	(854)	(71)	(3,973)
Provision (benefit) for credit losses	4,265	1,173	362	5,800
Allowance build for credit losses	1,217	319	291	1,827
Other changes ⁽⁴⁾	(17)	0	0	(17)
Balance as of December 31, 2022	9,545	2,237	1,458	13,240
Reserve for unfunded lending commitments:				
Balance as of December 31, 2021	0	0	165	165
Provision for losses on unfunded lending commitments	0	0	53	53
Balance as of December 31, 2022	0	0	218	218
Combined allowance and reserve as of December 31, 2022	\$ 9,545	\$ 2,237	\$ 1,676	\$ 13,458

⁽¹⁾ Concurrent with our adoption of the current expected credit losses ("CECL") standard in the first quarter of 2020, we reclassified our finance charge and fee reserve to our allowance for credit losses, with a corresponding increase to credit card loans held for investment.

⁽²⁾ The amount and timing of recoveries are impacted by our collection strategies, which are based on customer behavior and risk profile and include direct customer communications, repossession of collateral, the periodic sale of charged off loans as well as additional strategies, such as litigation.

⁽³⁾ Includes an allowance release of \$327 million for a partnership credit card loan portfolio transferred to held for sale in the third quarter of 2020.

⁽⁴⁾ Primarily represents foreign currency translation adjustments and, in periods of acquisition, initial allowance builds for purchase credit-deteriorated loans.

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Credit Card Partnership Loss Sharing Arrangements

We have certain credit card partnership agreements that are presented within our consolidated financial statements on a net basis, in which our partner agrees to share a portion of the credit losses on the underlying loan portfolio. The expected reimbursements from these partners are netted against our allowance for credit losses. Our methodology for estimating reimbursements is consistent with the methodology we use to estimate the allowance for credit losses on our credit card loan receivables. These expected reimbursements result in reductions to net charge-offs and the provision for credit losses. See “Note 1—Summary of Significant Accounting Policies” for further discussion of our credit card partnership agreements.

The table below summarizes the changes in the estimated reimbursements from these partners for the years ended December 31, 2022, 2021 and 2020.

Table 4.2: Summary of Credit Card Partnership Loss Sharing Arrangements Impacts

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Estimated reimbursements from partners, beginning of period ⁽¹⁾	\$ 1,450	\$ 2,159	\$ 2,166
Amounts due from partners which reduced net charge-offs	(515)	(438)	(959)
Amounts expected to become due from (to) partners which reduced (increased) provision for credit losses	623	(271)	952
Estimated reimbursements from partners, end of period	\$ 1,558	\$ 1,450	\$ 2,159

⁽¹⁾ Includes effects from adoption of the CECL standard in the first quarter of 2020.

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NOTE 5—VARIABLE INTEREST ENTITIES AND SECURITIZATIONS

In the normal course of business, we enter into various types of transactions with entities that are considered to be variable interest entities (“VIEs”). Our primary involvement with VIEs is related to our securitization transactions in which we transfer assets to securitization trusts. We primarily securitize credit card and auto loans, which provide a source of funding for us and enable us to transfer a certain portion of the economic risk of the loans or related debt securities to third parties.

The entity that has a controlling financial interest in a VIE is referred to as the primary beneficiary and is required to consolidate the VIE. The majority of the VIEs in which we are involved have been consolidated in our financial statements.

Summary of Consolidated and Unconsolidated VIEs

The assets of our consolidated VIEs primarily consist of cash, loan receivables and the related allowance for credit losses, which we report on our consolidated balance sheets under restricted cash for securitization investors, loans held in consolidated trusts and allowance for credit losses, respectively. The assets of a particular VIE are the primary source of funds to settle its obligations. Creditors of these VIEs typically do not have recourse to our general credit. Liabilities primarily consist of debt securities issued by the VIEs, which we report under securitized debt obligations on our consolidated balance sheets. For unconsolidated VIEs, we present the carrying amount of assets and liabilities reflected on our consolidated balance sheets and our maximum exposure to loss. Our maximum exposure to loss is estimated based on the unlikely event that all of the assets in the VIEs become worthless and we are required to meet the maximum amount of any remaining funding obligations.

The tables below present a summary of VIEs in which we had continuing involvement or held a significant variable interest, aggregated based on VIEs with similar characteristics as of December 31, 2022 and 2021. We separately present information for consolidated and unconsolidated VIEs.

Table 5.1: Carrying Amount of Consolidated and Unconsolidated VIEs

	December 31, 2022				
	Consolidated		Unconsolidated		
	Carrying Amount of Assets	Carrying Amount of Liabilities	Carrying Amount of Assets	Carrying Amount of Liabilities	Maximum Exposure to Loss
<i>(Dollars in millions)</i>					
Securitization-Related VIEs:⁽¹⁾					
Credit card loan securitizations ⁽²⁾	\$ 23,620	\$ 13,877	\$ 0	\$ 0	\$ 0
Auto loan securitizations	4,863	4,002	0	0	0
Total securitization-related VIEs	<u>28,483</u>	<u>17,879</u>	<u>0</u>	<u>0</u>	<u>0</u>
Other VIEs:⁽³⁾					
Affordable housing entities	261	19	4,944	1,596	4,944
Entities that provide capital to low-income and rural communities	2,301	10	0	0	0
Other ⁽⁴⁾	0	0	337	0	337
Total other VIEs	<u>2,562</u>	<u>29</u>	<u>5,281</u>	<u>1,596</u>	<u>5,281</u>
Total VIEs	<u>\$ 31,045</u>	<u>\$ 17,908</u>	<u>\$ 5,281</u>	<u>\$ 1,596</u>	<u>\$ 5,281</u>
December 31, 2021					
<i>(Dollars in millions)</i>					
Securitization-Related VIEs:⁽¹⁾					
Credit card loan securitizations ⁽²⁾	\$ 21,569	\$ 13,016	\$ 0	\$ 0	\$ 0
Auto loan securitizations	2,552	2,187	0	0	0
Total securitization-related VIEs	<u>24,121</u>	<u>15,203</u>	<u>0</u>	<u>0</u>	<u>0</u>

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<i>(Dollars in millions)</i>	December 31, 2021				
	Consolidated		Unconsolidated		
	Carrying Amount of Assets	Carrying Amount of Liabilities	Carrying Amount of Assets	Carrying Amount of Liabilities	Maximum Exposure to Loss
Other VIEs:⁽³⁾					
Affordable housing entities	263	27	4,774	1,454	4,774
Entities that provide capital to low-income and rural communities	2,074	26	0	0	0
Other ⁽⁴⁾	0	0	383	0	383
Total other VIEs	2,337	53	5,157	1,454	5,157
Total VIEs	\$ 26,458	\$ 15,256	\$ 5,157	\$ 1,454	\$ 5,157

⁽¹⁾ Excludes insignificant VIEs from previously exited businesses.

⁽²⁾ Represents the carrying amount of assets and liabilities of the VIE, which includes the seller’s interest and repurchased notes held by other related parties.

⁽³⁾ In certain investment structures, we consolidate a VIE which in turn holds as its primary asset an investment in an unconsolidated VIE. In these instances, we disclose the carrying amount of assets and liabilities on our consolidated balance sheets as unconsolidated VIEs to avoid duplicating our exposure, as the unconsolidated VIEs are generally the operating entities generating the exposure. The carrying amount of assets and liabilities included in the unconsolidated VIE columns above related to these investment structures were \$2.3 billion of assets and \$616 million of liabilities as of December 31, 2022, and \$2.2 billion of assets and \$568 million of liabilities as of December 31, 2021.

⁽⁴⁾ Primarily consists of variable interests in companies that promote renewable energy sources and other equity method investments.

Securitization-Related VIEs

In a securitization transaction, assets are transferred to a trust, which generally meets the definition of a VIE. We engage in securitization activities as an issuer and an investor. Our primary securitization issuance activity includes credit card and auto securitizations, conducted through securitization trusts which we consolidate. Our continuing involvement in these securitization transactions mainly consists of acting as the primary servicer and holding certain retained interests.

In our multifamily agency business, we originate multifamily commercial real estate loans and transfer them to government-sponsored enterprises (“GSEs”) who may, in turn, securitize them. We retain the related MSRs and service the transferred loans pursuant to the guidelines set forth by the GSEs. As an investor, we hold primarily RMBS, CMBS, and ABS in our investment securities portfolio, which represent variable interests in the respective securitization trusts from which those securities were issued. We do not consolidate the securitization trusts employed in these transactions as we do not have the power to direct the activities that most significantly impact the economic performance of these securitization trusts. We exclude these VIEs from the tables within this note because we do not consider our continuing involvement with these VIEs to be significant as we either solely invest in securities issued by the VIE and were not involved in the design of the VIE or no transfers have occurred between the VIE and ourselves. Our maximum exposure to loss as a result of our involvement with these VIEs is the carrying value of the MSRs and investment securities on our consolidated balance sheets as well as our contractual obligations under loss sharing arrangements. See “Note 18—Commitments, Contingencies, Guarantees and Others” for information about the loss sharing agreements, “Note 6—Goodwill and Other Intangible Assets” for information related to our MSRs associated with these securitizations and “Note 2—Investment Securities” for more information on the securities held in our investment securities portfolio. In addition, where we have certain lending arrangements in the normal course of business with entities that could be VIEs, we have also excluded these VIEs from the tables presented in this note. See “Note 3—Loans” for additional information regarding our lending arrangements in the normal course of business.

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The table below presents our continuing involvement in certain securitization-related VIEs as of December 31, 2022 and 2021.

Table 5.2: Continuing Involvement in Securitization-Related VIEs

<i>(Dollars in millions)</i>	Credit Card	Auto
December 31, 2022:		
Securities held by third-party investors	\$ 12,976	\$ 3,997
Receivables in the trusts	24,367	4,682
Cash balance of spread or reserve accounts	0	23
Retained interests	Yes	Yes
Servicing retained	Yes	Yes
December 31, 2021:		
Securities held by third-party investors	\$ 12,808	\$ 2,186
Receivables in the trusts	22,454	2,418
Cash balance of spread or reserve accounts	0	13
Retained interests	Yes	Yes
Servicing retained	Yes	Yes

Credit Card Securitizations

We securitize a portion of our credit card loans which provides a source of funding for us. Credit card securitizations involve the transfer of credit card receivables to securitization trusts. These trusts then issue debt securities collateralized by the transferred receivables to third-party investors. We hold certain retained interests in our credit card securitizations and continue to service the receivables in these trusts. We consolidate these trusts because we are deemed to be the primary beneficiary as we have the power to direct the activities that most significantly impact the economic performance of the trusts, and the right to receive benefits or the obligation to absorb losses that could potentially be significant to the trusts.

Auto Securitizations

Similar to our credit card securitizations, we securitize a portion of our auto loans which provides a source of funding for us. Auto securitizations involve the transfer of auto loans to securitization trusts. These trusts then issue debt securities collateralized by the transferred loans to third-party investors. We hold certain retained interests and continue to service the loans in these trusts. We consolidate these trusts because we are deemed to be the primary beneficiary as we have the power to direct the activities that most significantly impact the economic performance of the trusts, and the right to receive benefits or the obligation to absorb losses that could potentially be significant to the trusts.

Other VIEs

Affordable Housing Entities

As part of our community reinvestment initiatives, we invest in private investment funds that make equity investments in multifamily affordable housing properties. We receive affordable housing tax credits for these investments. The activities of these entities are financed with a combination of invested equity capital and debt. We account for certain investments in qualified affordable housing projects using the proportional amortization method if certain criteria are met. The proportional amortization method amortizes the cost of the investment over the period in which the investor expects to receive tax credits and other tax benefits, and the resulting amortization is recognized as a component of income tax expense attributable to continuing operations. For the years ended December 31, 2022 and 2021, we recognized amortization of \$637 million and \$633 million, respectively, and tax credits of \$664 million and \$644 million, respectively, associated with these investments within income tax provision. The carrying value of our equity investments in these qualified affordable housing projects was \$4.9 billion and \$4.7 billion as of December 31, 2022 and 2021, respectively. We are periodically required to provide additional financial or other support during the period of the investments. Our liability for these unfunded commitments was \$1.8 billion and \$1.7 billion as of December 31, 2022 and 2021 respectively, and is largely expected to be paid from 2023 to 2025.

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For those investment funds considered to be VIEs, we are not required to consolidate them if we do not have the power to direct the activities that most significantly impact the economic performance of those entities. We record our interests in these unconsolidated VIEs in loans held for investment, other assets and other liabilities on our consolidated balance sheets. Our maximum exposure to these entities is limited to our variable interests in the entities which consisted of assets of approximately \$4.9 billion and \$4.8 billion as of December 31, 2022 and 2021 respectively. The creditors of the VIEs have no recourse to our general credit and we do not provide additional financial or other support other than during the period that we are contractually required to provide it. The total assets of the unconsolidated VIE investment funds were approximately \$12.5 billion and \$11.9 billion as of December 31, 2022 and 2021, respectively.

Entities that Provide Capital to Low-Income and Rural Communities

We hold variable interests in entities (“Investor Entities”) that invest in community development entities (“CDEs”) that provide debt financing to businesses and non-profit entities in low-income and rural communities. Variable interests in the CDEs held by the consolidated Investor Entities are also our variable interests. The activities of the Investor Entities are financed with a combination of invested equity capital and debt. The activities of the CDEs are financed solely with invested equity capital. We receive federal and state tax credits for these investments. We consolidate the VIEs in which we have the power to direct the activities that most significantly impact the VIE’s economic performance and where we have the obligation to absorb losses or right to receive benefits that could be potentially significant to the VIE. We consolidate other investments and CDEs that are not considered to be VIEs, but where we hold a controlling financial interest. The assets of the VIEs that we consolidated, which totaled approximately \$2.3 billion and \$2.1 billion as of December 31, 2022 and 2021, respectively, are reflected on our consolidated balance sheets in cash, loans held for investment, and other assets. The liabilities are reflected in other liabilities. The creditors of the VIEs have no recourse to our general credit. We have not provided additional financial or other support other than during the period that we are contractually required to provide it.

Other

We hold variable interests in other VIEs, including companies that promote renewable energy sources and other equity method investments. We are not required to consolidate these VIEs because we do not have the power to direct the activities that most significantly impact their economic performance. Our maximum exposure to these VIEs is limited to the investments on our consolidated balance sheets of \$337 million and \$383 million as of December 31, 2022 and 2021, respectively. The creditors of the other VIEs have no recourse to our general credit. We have not provided additional financial or other support other than during the period that we are contractually required to provide it.

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NOTE 6—GOODWILL AND OTHER INTANGIBLE ASSETS

The table below presents our goodwill, other intangible assets and MSRs as of December 31, 2022 and 2021. Goodwill is presented separately, while other intangible assets and MSRs are included in other assets on our consolidated balance sheets.

Table 6.1: Components of Goodwill, Other Intangible Assets and MSRs

<i>(Dollars in millions)</i>	December 31, 2022			Weighted Average Remaining Amortization Period
	Carrying Amount of Assets	Accumulated Amortization	Net Carrying Amount	
Goodwill	\$ 14,777	N/A	\$ 14,777	N/A
Other intangible assets:				
Purchased credit card relationship (“PCCR”) intangibles	147	\$ (26)	121	7.8 years
Other ⁽¹⁾	195	(157)	38	5.4 years
Total other intangible assets	342	(183)	159	7.3 years
Total goodwill and other intangible assets	\$ 15,119	\$ (183)	\$ 14,936	
Commercial MSRs ⁽²⁾	\$ 660	\$ (223)	\$ 437	

<i>(Dollars in millions)</i>	December 31, 2021			Weighted Average Remaining Amortization Period
	Carrying Amount of Assets	Accumulated Amortization	Net Carrying Amount	
Goodwill	\$ 14,782	N/A	\$ 14,782	N/A
Other intangible assets:				
Purchased credit card relationship (“PCCR”) intangibles	29	\$ (10)	19	5.9 years
Other ⁽¹⁾	213	(121)	92	4.1 years
Total other intangible assets	242	(131)	111	4.4 years
Total goodwill and other intangible assets	\$ 15,024	\$ (131)	\$ 14,893	
Commercial MSRs ⁽²⁾	\$ 622	\$ (202)	\$ 420	

⁽¹⁾ Primarily consists of intangibles for sponsorship, customer and merchant relationships, trade names and other customer contract intangibles.

⁽²⁾ Commercial MSRs are accounted for under the amortization method under which we recorded \$93 million and \$79 million of amortization expense for the years ended December 31, 2022 and 2021, respectively.

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Goodwill

The following table presents changes in carrying amount of goodwill by each of our business segments as of December 31, 2022, 2021 and 2020. There were no changes in the carrying amount of goodwill by each of our business segments for the year ended December 31, 2020. We did not recognize any goodwill impairment during 2022, 2021 and 2020.

Table 6.2: Goodwill by Business Segments

<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking	Total
Balance as of December 31, 2019	\$ 5,088	\$ 4,645	\$ 4,920	\$ 14,653
Balance as of December 31, 2020	\$ 5,088	\$ 4,645	\$ 4,920	\$ 14,653
Acquisitions	0	0	130	130
Other adjustments ⁽¹⁾	(1)	0	0	(1)
Balance as of December 31, 2021	\$ 5,087	\$ 4,645	\$ 5,050	\$ 14,782
Other adjustments ⁽¹⁾	(9)	0	4	(5)
Balance as of December 31, 2022	<u>\$ 5,078</u>	<u>\$ 4,645</u>	<u>\$ 5,054</u>	<u>\$ 14,777</u>

⁽¹⁾ Represents foreign currency translation adjustments and measurement period adjustments on prior period acquisitions.

The goodwill impairment test is performed as of October 1 of each year. An impairment of a reporting unit's goodwill is determined based on the amount by which the reporting unit's carrying value exceeds its fair value, limited to the amount of goodwill allocated to the reporting unit.

The fair value of reporting units is calculated using a discounted cash flow methodology, a form of the income approach. The calculation uses projected cash flows based on each reporting unit's internal forecast and uses the perpetuity growth method to calculate terminal values. These cash flows and terminal values are then discounted using appropriate discount rates, which are largely based on our external cost of equity with adjustments for risk inherent in each reporting unit. The carrying amount for a reporting unit is the sum of its respective capital requirements, goodwill and other intangibles balances. Capital is allocated based on each reporting unit's specific regulatory capital requirements, economic capital requirements, and underlying risks. Consolidated stockholder's equity in excess of the sum of all reporting unit's capital requirements that is not identified for future capital needs, such as dividends, share buybacks, or other strategic initiatives, is allocated to the reporting units and the Other category and assumed distributed to equity holders in future periods. Our discounted cash flow analysis requires management to make judgments about future loan and deposit growth, revenue growth, credit losses, and capital rates. The reasonableness of our fair value calculation is assessed by reference to a market-based approach using comparable market multiples and recent market transactions where available.

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Intangible Assets

In connection with our acquisitions, we recorded intangible assets that include PCCR intangibles, sponsorship, customer and merchant relationships, partnership, trade names, and other customer contract intangibles. At acquisition, the PCCR intangibles reflect the estimated value of existing credit card holder relationships. There was a \$10 million impairment of intangible assets in 2022. There were no impairments of intangible assets in 2021 and 2020.

Intangible assets are typically amortized over their respective estimated useful lives on either an accelerated or straight-line basis. The following table summarizes the actual amortization expense recorded for the years ended December 31, 2022, 2021 and 2020 and the estimated future amortization expense for intangible assets as of December 31, 2022:

Table 6.3: Amortization Expense

<i>(Dollars in millions)</i>	Amortization Expense
Actual for the year ended December 31,	
2020	\$ 60
2021	29
2022	60
Estimated future amounts for the year ending December 31,	
2023	38
2024	31
2025	26
2026	19
2027	15
Thereafter	21
Total estimated future amounts	\$ 150

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NOTE 7—PREMISES, EQUIPMENT AND LEASES

Premises and Equipment

The following table presents our premises and equipment as of December 31, 2022 and 2021.

Table 7.1 Components of Premises and Equipment

<i>(Dollars in millions)</i>	December 31, 2022	December 31, 2021
Land	\$ 320	\$ 336
Buildings and improvements	4,345	3,854
Furniture and equipment	1,831	1,816
Computer software	2,213	2,006
In progress	646	732
Total premises and equipment, gross	9,355	8,744
Less: Accumulated depreciation and amortization	(5,004)	(4,534)
Total premises and equipment, net	<u>\$ 4,351</u>	<u>\$ 4,210</u>

Depreciation and amortization expense was \$790 million, \$775 million and \$809 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Leases

Our primary involvement with leases is in the capacity as a lessee where we lease premises to support our business. A majority of our leases are operating leases of office space, retail bank branches and cafés. For real estate leases, we have elected to account for the lease and non-lease components together as a single lease component. Our operating leases expire at various dates through 2071, and many of them require variable lease payments by us, of property taxes, insurance premiums, common area maintenance and other costs. Certain of these leases also have extension or termination options, and we assess the likelihood of exercising such options. If it is reasonably certain that we will exercise the options, then we include the impact in the measurement of our right-of-use assets and lease liabilities.

Our right-of-use assets and lease liabilities for operating leases are included in other assets and other liabilities on our consolidated balance sheets. As most of our operating leases do not provide an implicit rate, we use our incremental borrowing rate in determining the present value of future lease payments. Our operating lease expense is included in occupancy and equipment within non-interest expense in our consolidated statements of income. Total operating lease expense consists of operating lease cost, which is recognized on a straight-line basis over the lease term, and variable lease cost, which is recognized based on actual amounts incurred. We also sublease certain premises, and sublease income is included in other non-interest income in our consolidated statements of income.

The following tables present information about our operating lease portfolio and the related lease costs as of and for the years ended December 31, 2022 and 2021.

Table 7.2 Operating Lease Portfolio

<i>(Dollars in millions)</i>	December 31, 2022	December 31, 2021
Right-of-use assets	\$ 1,128	\$ 1,137
Lease liabilities	1,458	1,485
Weighted-average remaining lease term	8.4 years	8 years
Weighted-average discount rate	3.1 %	3.0 %

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Table 7.3 Total Operating Lease Expense and Other Information

<i>(Dollars in millions)</i>	Year Ended December 31,	
	2022	2021
Operating lease cost	\$ 280	\$ 305
Variable lease cost	42	42
Total lease cost	322	347
Sublease income	(16)	(23)
Net lease cost	\$ 306	\$ 324
Cash paid for amounts included in the measurement of lease liabilities	\$ 320	\$ 353
Right-of-use assets obtained in exchange for lease liabilities	221	81

The following table presents a maturity analysis of our operating leases and a reconciliation of the undiscounted cash flows to our lease liabilities as of December 31, 2022.

Table 7.4 Maturities of Operating Leases and Reconciliation to Lease Liabilities

<i>(Dollars in millions)</i>	December 31, 2022
2023	\$ 259
2024	241
2025	210
2026	192
2027	167
Thereafter	623
Total undiscounted lease payments	1,692
Less: Imputed interest	(234)
Total lease liabilities	\$ 1,458

As of December 31, 2022, we had approximately \$22 million and \$33 million of right-of-use assets and lease liabilities, respectively, for finance leases with a weighted-average remaining lease term of 3.3 years. As of December 31, 2021, we had approximately \$33 million and \$53 million of right-of-use assets and lease liabilities, respectively, for finance leases with a weighted-average remaining lease term of 3.4 years. These right-of-use assets and lease liabilities are included in premises and equipment, net and other borrowings, respectively, on our consolidated balance sheets. We recognized \$14 million and \$22 million of total finance lease expense for the years ended December 31, 2022 and 2021, respectively.

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NOTE 8—DEPOSITS AND BORROWINGS

Our deposits, which include checking accounts, money market deposits, negotiable order of withdrawals, savings deposits and time deposits, represent our largest source of funding for our assets and operations. We also use a variety of other funding sources including short-term borrowings, senior and subordinated notes, securitized debt obligations and other borrowings. Securitized debt obligations are presented separately on our consolidated balance sheets, as they represent obligations of consolidated securitization trusts, while federal funds purchased and securities loaned or sold under agreements to repurchase, senior and subordinated notes and other borrowings, including FHLB advances, are included in other debt on our consolidated balance sheets.

Our total short-term borrowings generally consist of federal funds purchased, securities loaned or sold under agreements to repurchase and FHLB advances. Our long-term debt consists of borrowings with an original contractual maturity of greater than one year. The following tables summarize the components of our deposits, short-term borrowings and long-term debt as of December 31, 2022 and 2021. The carrying value presented below for these borrowings includes unamortized debt premiums and discounts, net of debt issuance costs and fair value hedge accounting adjustments.

Table 8.1: Components of Deposits, Short-Term Borrowings and Long-Term Debt

<i>(Dollars in millions)</i>	December 31, 2022	December 31, 2021
Deposits:		
Non-interest-bearing deposits	\$ 32,203	\$ 38,043
Interest-bearing deposits ⁽¹⁾	300,789	272,937
Total deposits	<u>\$ 332,992</u>	<u>\$ 310,980</u>
Short-term borrowings:		
Federal funds purchased and securities loaned or sold under agreements to repurchase	\$ 883	\$ 820
Total short-term borrowings	<u>\$ 883</u>	<u>\$ 820</u>

<i>(Dollars in millions)</i>	December 31, 2022			December 31, 2021	
	Maturity Dates	Stated Interest Rates	Weighted- Average Interest Rate	Carrying Value	Carrying Value
Long-term debt:					
Securitized debt obligations	2023-2028	0.32% - 4.95%	2.61%	\$ 16,973	\$ 14,994
Senior and subordinated notes:					
Fixed unsecured senior debt ⁽²⁾	2023-2033	0.80 - 5.27	3.43	24,134	19,975
Floating unsecured senior debt	2023-2025	4.99 - 5.65	5.17	1,597	1,709
Total unsecured senior debt			3.53	25,731	21,684
Fixed unsecured subordinated debt	2023-2032	2.36 - 4.20	3.52	5,095	5,535
Total senior and subordinated notes				30,826	27,219
Other long-term borrowings:					
Finance lease liabilities	2023 - 2031	0.30 - 9.91	4.27	33	53
Total other long-term borrowings				33	53
Total long-term debt				<u>\$ 47,832</u>	<u>\$ 42,266</u>
Total short-term borrowings and long-term debt				<u>\$ 48,715</u>	<u>\$ 43,086</u>

⁽¹⁾ Includes \$6.1 billion and \$1.8 billion of time deposits in denominations in excess of the \$250,000 federal insurance limit as of December 31, 2022 and 2021, respectively.

⁽²⁾ Includes \$1.2 billion and \$1.4 billion of Euro (“EUR”) denominated unsecured notes as of December 31, 2022 and 2021, respectively.

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The following table presents the carrying value of our interest-bearing time deposits with contractual maturities, securitized debt obligations and other debt by remaining contractual maturity as of December 31, 2022.

Table 8.2: Maturity Profile of Borrowings

<i>(Dollars in millions)</i>	2023	2024	2025	2026	2027	Thereafter	Total
Interest-bearing time deposits	\$ 20,090	\$ 13,321	\$ 4,349	\$ 2,077	\$ 5,719	\$ 302	\$ 45,858
Securitized debt obligations	466	4,166	7,780	1,749	1,620	1,192	16,973
Federal funds purchased and securities loaned or sold under agreements to repurchase	883	0	0	0	0	0	883
Senior and subordinated notes	4,859	6,387	4,397	4,325	3,381	7,477	30,826
Other borrowings	19	3	2	2	3	4	33
Total	<u>\$ 26,317</u>	<u>\$ 23,877</u>	<u>\$ 16,528</u>	<u>\$ 8,153</u>	<u>\$ 10,723</u>	<u>\$ 8,975</u>	<u>\$ 94,573</u>

CAPITAL ONE FINANCIAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 9—DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Use of Derivatives and Accounting for Derivatives

We regularly enter into derivative transactions to support our overall risk management activities. Our primary market risks stem from the impact on our earnings and economic value of equity due to changes in interest rates and, to a lesser extent, changes in foreign exchange rates. We manage our interest rate sensitivity by employing several techniques, which include changing the duration and re-pricing characteristics of various assets and liabilities by using interest rate derivatives. We also use foreign currency derivatives to limit our earnings and capital exposures to foreign exchange risk by hedging exposures denominated in foreign currencies. We primarily use interest rate and foreign currency swaps to hedge, but we may also use a variety of other derivative instruments, including caps, floors, options, futures and forward contracts, to manage our interest rate and foreign exchange risks. We designate these risk management derivatives as either qualifying accounting hedges or free-standing derivatives. Qualifying accounting hedges are further designated as fair value hedges, cash flow hedges or net investment hedges. Free-standing derivatives are economic hedges that do not qualify for hedge accounting.

We also offer interest rate, commodity, foreign currency derivatives and other contracts as an accommodation to our customers within our Commercial Banking business. We enter into these derivatives with our customers primarily to help them manage their interest rate risks, hedge their energy and other commodities exposures, and manage foreign currency fluctuations. We offset the majority of the market risk exposure of our customer accommodation derivatives through derivative transactions with other counterparties.

See below for additional information on our use of derivatives and how we account for them:

- *Fair Value Hedges:* We designate derivatives as fair value hedges when they are used to manage our exposure to changes in the fair value of certain financial assets and liabilities, which fluctuate in value as a result of movements in interest rates. Changes in the fair value of derivatives designated as fair value hedges are presented in the same line item in our consolidated statements of income as the earnings effect of the hedged items. Our fair value hedges primarily consist of interest rate swaps that are intended to modify our exposure to interest rate risk on various fixed-rate financial assets and liabilities.
- *Cash Flow Hedges:* We designate derivatives as cash flow hedges when they are used to manage our exposure to variability in cash flows related to forecasted transactions. Changes in the fair value of derivatives designated as cash flow hedges are recorded as a component of AOCI. Those amounts are reclassified into earnings in the same period during which the hedged forecasted transactions impact earnings and presented in the same line item in our consolidated statements of income as the earnings effect of the hedged items. Our cash flow hedges use interest rate swaps and floors that are intended to hedge the variability in interest receipts or interest payments on some of our variable-rate financial assets or liabilities. We also enter into foreign currency forward contracts to hedge our exposure to variability in cash flows related to intercompany borrowings denominated in foreign currencies.
- *Net Investment Hedges:* We use net investment hedges to manage the foreign currency exposure related to our net investments in foreign operations that have functional currencies other than the U.S. dollar. Changes in the fair value of net investment hedges are recorded in the translation adjustment component of AOCI, offsetting the translation gain or loss from those foreign operations. We execute net investment hedges using foreign currency forward contracts to hedge the translation exposure of the net investment in our foreign operations under the forward method.
- *Free-Standing Derivatives:* Our free-standing derivatives primarily consist of our customer accommodation derivatives and other economic hedges. The customer accommodation derivatives and the related offsetting contracts are mainly interest rate, commodity and foreign currency contracts. The other free-standing derivatives are primarily used to economically hedge the risk of changes in the fair value of our commercial mortgage loan origination and purchase commitments as well as other interests held. Changes in the fair value of free-standing derivatives are recorded in earnings as a component of other non-interest income.

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Derivatives Counterparty Credit Risk

Counterparty Types

Derivative instruments contain an element of credit risk that stems from the potential failure of a counterparty to perform according to the terms of the contract, including making payments due upon maturity of certain derivative instruments. We execute our derivative contracts primarily in OTC markets. We also execute interest rate and commodity futures in the exchange-traded derivative markets. Our OTC derivatives consist of both trades cleared through central counterparty clearinghouses (“CCPs”) and uncleared bilateral contracts. The Chicago Mercantile Exchange (“CME”), the Intercontinental Exchange (“ICE”) and the LCH Group (“LCH”) are our CCPs for our centrally cleared contracts. In our uncleared bilateral contracts, we enter into agreements directly with our derivative counterparties.

Counterparty Credit Risk Management

We manage the counterparty credit risk associated with derivative instruments by entering into legally enforceable master netting agreements, where applicable, and exchanging collateral with our counterparties, typically in the form of cash or high-quality liquid securities. We exchange collateral in two primary forms: variation margin, which mitigates the risk of changes in value due to daily market movements and is exchanged daily, and initial margin, which mitigates the risk of potential future exposure of a derivative and is exchanged at the outset of a transaction and adjusted daily. We exchange variation margin and initial margin on our cleared derivatives. For uncleared bilateral derivatives, we exchange variation margin and initial margin on any new trades executed after September 1, 2021, where such trades are in scope for initial margin.

The amount of collateral exchanged for variation margin is dependent upon the fair value of the derivative instruments as well as the fair value of the pledged collateral and will vary over time as market variables change. The amount of the initial margin exchanged is dependent upon 1) the calculation of initial margin exposure, as prescribed by 1(a) the U.S. prudential regulators’ margin rules for uncleared derivatives (“PR Rules”) or 1(b) the CCPs for cleared derivatives and 2) the fair value of the pledged collateral; it will vary over time as market variables change. When valuing collateral, an estimate of the variation in price and liquidity over time is subtracted in the form of a “haircut” to discount the value of the collateral pledged. Our exposure to derivative counterparty credit risk, at any point in time, is equal to the amount reported as a derivative asset on our balance sheet. The fair value of our derivatives is adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements and any associated collateral received or pledged. See Table 9.3 for our net exposure associated with derivatives.

The terms under which we collateralize our exposures differ between cleared exposures and uncleared bilateral exposures.

- *CCPs:* We clear eligible OTC derivatives with CCPs as part of our regulatory requirements. We also clear exchange-traded instruments, like futures, with CCPs. Futures commission merchants (“FCMs”) serve as the intermediary between CCPs and us. CCPs require that we post initial and variation margin through our FCMs to mitigate the risk of non-payment or default. Initial margin is required by CCPs as collateral against potential losses on our exchange-traded and cleared derivative contracts and variation margin is exchanged on a daily basis to account for mark-to-market changes in those derivative contracts. For CME, ICE and LCH-cleared OTC derivatives, variation margin cash payments are required to be characterized as settlements. Our FCM agreements governing these derivative transactions include provisions that may require us to post additional collateral under certain circumstances.
- *Bilateral Counterparties:* We enter into master netting agreements and collateral agreements with bilateral derivative counterparties, where applicable, to mitigate the risk of default. These bilateral agreements typically provide the right to offset exposure with the same counterparty and require the party in a net liability position to post collateral. Agreements with certain bilateral counterparties require both parties to maintain collateral in the event the fair values of uncleared derivatives exceed established exposure thresholds. Certain of these bilateral agreements include provisions requiring that our debt maintain a credit rating of investment grade or above by each of the major credit rating agencies. In the event of a downgrade of our debt credit rating below investment grade, some of our counterparties would have the right to terminate their derivative contract and close out existing positions.

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Credit Risk Valuation Adjustments

We record counterparty credit valuation adjustments (“CVAs”) on our derivative assets to reflect the credit quality of our counterparties. We consider collateral and legally enforceable master netting agreements that mitigate our credit exposure to each counterparty in determining CVAs, which may be adjusted due to changes in the fair values of the derivative contracts, collateral, and creditworthiness of the counterparty. We also record debit valuation adjustments (“DVAs”) to adjust the fair values of our derivative liabilities to reflect the impact of our own credit quality.

Balance Sheet Presentation

The following table summarizes the notional amounts and fair values of our derivative instruments as of December 31, 2022 and 2021, which are segregated by derivatives that are designated as accounting hedges and those that are not, and are further segregated by type of contract within those two categories. The total derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements and any associated cash collateral received or pledged. Derivative assets and liabilities are included in other assets and other liabilities, respectively, on our consolidated balance sheets, and their related gains or losses are included in operating activities as changes in other assets and other liabilities in the consolidated statements of cash flows.

Table 9.1: Derivative Assets and Liabilities at Fair Value

<i>(Dollars in millions)</i>	December 31, 2022			December 31, 2021		
	Notional or Contractual Amount	Derivative ⁽¹⁾		Notional or Contractual Amount	Derivative ⁽¹⁾	
		Assets	Liabilities		Assets	Liabilities
Derivatives designated as accounting hedges:						
Interest rate contracts:						
Fair value hedges	\$ 60,956	\$ 3	\$ 53	\$ 49,659	\$ 2	\$ 3
Cash flow hedges	30,350	0	451	52,400	244	16
Total interest rate contracts	91,306	3	504	102,059	246	19
Foreign exchange contracts:						
Fair value hedges	1,338	0	211	1,421	13	0
Cash flow hedges	2,175	4	14	4,679	24	20
Net investment hedges	4,147	78	91	3,459	43	0
Total foreign exchange contracts	7,660	82	316	9,559	80	20
Total derivatives designated as accounting hedges	98,966	85	820	111,618	326	39
Derivatives not designated as accounting hedges:						
Customer accommodation:						
Interest rate contracts	91,601	1,140	1,873	71,724	620	194
Commodity contracts	28,935	1,756	1,738	22,021	1,669	1,561
Foreign exchange and other contracts	4,926	74	78	3,779	40	42
Total customer accommodation	125,462	2,970	3,689	97,524	2,329	1,797
Other interest rate exposures ⁽²⁾	1,135	34	22	1,899	33	25
Other contracts	2,238	9	19	2,028	2	7
Total derivatives not designated as accounting hedges	128,835	3,013	3,730	101,451	2,364	1,829
Total derivatives	\$ 227,801	\$ 3,098	\$ 4,550	\$ 213,069	\$ 2,690	\$ 1,868
Less: netting adjustment ⁽³⁾		(1,134)	(1,235)		(542)	(544)
Total derivative assets/liabilities		\$ 1,964	\$ 3,315		\$ 2,148	\$ 1,324

⁽¹⁾ Does not reflect \$4 million and \$11 million recognized as a net valuation allowance on derivative assets and liabilities for non-performance risk as of December 31, 2022 and 2021, respectively. Non-performance risk is included in derivative assets and liabilities, which are part of other assets and other liabilities on the consolidated balance sheets, and is offset through non-interest income in the consolidated statements of income.

⁽²⁾ Other interest rate exposures include commercial mortgage-related derivatives and interest rate swaps.

CAPITAL ONE FINANCIAL CORPORATION
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⁽³⁾ Represents balance sheet netting of derivative assets and liabilities, and related payables and receivables for cash collateral held or placed with the same counterparty.

The following table summarizes the carrying value of our hedged assets and liabilities in fair value hedges and the associated cumulative basis adjustments included in those carrying values, excluding basis adjustments related to foreign currency risk, as of December 31, 2022 and 2021.

Table 9.2: Hedged Items in Fair Value Hedging Relationships

<i>(Dollars in millions)</i>	December 31, 2022			December 31, 2021		
	Carrying Amount Assets/ (Liabilities)	Cumulative Amount of Basis Adjustments Included in the Carrying Amount		Carrying Amount Assets/ (Liabilities)	Cumulative Amount of Basis Adjustments Included in the Carrying Amount	
		Total Assets/ (Liabilities)	Discontinued- Hedging Relationships		Total Assets/ (Liabilities)	Discontinued- Hedging Relationships
Line item on our consolidated balance sheets in which the hedged item is included:						
Investment securities available for sale ⁽¹⁾⁽²⁾	\$ 3,983	\$ (80)	\$ 200	\$ 10,327	\$ 286	\$ 295
Interest-bearing deposits	(17,280)	500	(1)	(7,361)	(47)	(1)
Securitized debt obligations	(11,921)	748	0	(11,155)	49	3
Senior and subordinated notes	(24,544)	1,542	(527)	(22,777)	(531)	(708)

⁽¹⁾ These amounts include the amortized cost basis of our investment securities designated in hedging relationships for which the hedged item is the last layer expected to be remaining at the end of the hedging relationship. The amortized cost basis of this portfolio was \$236 million and \$247 million as of December 31, 2022 and 2021, respectively. The amount of the designated hedged items was \$225 million as of both December 31, 2022 and 2021. The cumulative basis adjustments associated with these hedges was \$13 million and \$3 million as of December 31, 2022 and 2021, respectively.

⁽²⁾ Carrying value represents amortized cost.

Balance Sheet Offsetting of Financial Assets and Liabilities

Derivative contracts and repurchase agreements that we execute bilaterally in the OTC market are generally governed by enforceable master netting agreements where we generally have the right to offset exposure with the same counterparty. Either counterparty can generally request to net settle all contracts through a single payment upon default on, or termination of, any one contract. We elect to offset the derivative assets and liabilities under master netting agreements for balance sheet presentation where a right of setoff exists. For derivative contracts entered into under master netting agreements for which we have not been able to confirm the enforceability of the setoff rights, or those not subject to master netting agreements, we do not offset our derivative positions for balance sheet presentation.

The following table presents the gross and net fair values of our derivative assets, derivative liabilities, resale and repurchase agreements and the related offsetting amounts permitted under U.S. GAAP as of December 31, 2022 and 2021. The table also includes cash and non-cash collateral received or pledged in accordance with such arrangements. The amount of collateral presented, however, is limited to the amount of the related net derivative fair values or outstanding balances; therefore, instances of over-collateralization are excluded.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Table 9.3: Offsetting of Financial Assets and Financial Liabilities

<i>(Dollars in millions)</i>	Gross Amounts	Gross Amounts Offset in the Balance Sheet		Net Amounts as Recognized	Securities Collateral Held Under Master Netting Agreements	Net Exposure
		Financial Instruments	Cash Collateral Received			
As of December 31, 2022						
Derivative assets ⁽¹⁾	\$ 3,098	\$ (759)	\$ (375)	\$ 1,964	\$ (96)	\$ 1,868
As of December 31, 2021						
Derivative assets ⁽¹⁾	2,690	(252)	(290)	2,148	0	2,148

<i>(Dollars in millions)</i>	Gross Amounts	Gross Amounts Offset in the Balance Sheet		Net Amounts as Recognized	Securities Collateral Pledged Under Master Netting Agreements	Net Exposure
		Financial Instruments	Cash Collateral Pledged			
As of December 31, 2022						
Derivative liabilities ⁽¹⁾	\$ 4,550	\$ (759)	\$ (476)	\$ 3,315	\$ (85)	\$ 3,230
Repurchase agreements ⁽²⁾	883	0	0	883	(883)	0
As of December 31, 2021						
Derivative liabilities ⁽¹⁾	1,868	(252)	(292)	1,324	0	1,324
Repurchase agreements ⁽²⁾	820	0	0	820	(820)	0

⁽¹⁾ We received cash collateral from derivative counterparties totaling \$608 million and \$377 million as of December 31, 2022 and 2021, respectively. We also received securities from derivative counterparties with a fair value of approximately \$82 million and \$1 million as of December 31, 2022 and 2021, respectively, which we have the ability to re-pledge. We posted \$2.3 billion and \$2.0 billion of cash collateral as of December 31, 2022 and 2021, respectively.

⁽²⁾ Under our customer repurchase agreements, which mature the next business day, we pledged collateral with a fair value of \$900 million and \$836 million as of December 31, 2022 and 2021, respectively, primarily consisting of agency RMBS securities.

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Income Statement and AOCI Presentation

Fair Value and Cash Flow Hedges

The net gains (losses) recognized in our consolidated statements of income related to derivatives in fair value and cash flow hedging relationships are presented below for the years ended December 31, 2022, 2021 and 2020.

Table 9.4: Effects of Fair Value and Cash Flow Hedge Accounting

<i>(Dollars in millions)</i>	Year Ended December 31, 2022						
	Net Interest Income						Non-Interest Income
	Investment Securities	Loans, Including Loans Held for Sale	Other	Interest- bearing Deposits	Securitized Debt Obligations	Senior and Subordinated Notes	Other
Total amounts presented in our consolidated statements of income	\$ 1,884	\$ 28,910	\$ 443	\$ (2,535)	\$ (384)	\$ (1,074)	\$ 905
Fair value hedging relationships:							
Interest rate and foreign exchange contracts:							
Interest recognized on derivatives	\$ 48	\$ 0	\$ 0	\$ 2	\$ (48)	\$ (197)	\$ 0
Gains (losses) recognized on derivatives	276	0	0	(542)	(698)	(1,893)	(84)
Gains (losses) recognized on hedged items ⁽¹⁾	(366)	0	0	546	699	2,059	83
Excluded component of fair value hedges ⁽²⁾	0	0	0	0	0	(3)	0
Net income (expense) recognized on fair value hedges	<u>\$ (42)</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 6</u>	<u>\$ (47)</u>	<u>\$ (34)</u>	<u>\$ (1)</u>
Cash flow hedging relationships:⁽³⁾							
Interest rate contracts:							
Realized gains (losses) reclassified from AOCI into net income	\$ 0	\$ (121)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Foreign exchange contracts:							
Realized gains (losses) reclassified from AOCI into net income ⁽⁴⁾	0	0	3	0	0	0	(1)
Net income (expense) recognized on cash flow hedges	<u>\$ 0</u>	<u>\$ (121)</u>	<u>\$ 3</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ (1)</u>

CAPITAL ONE FINANCIAL CORPORATION
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Year Ended December 31, 2021

<i>(Dollars in millions)</i>	Net Interest Income						Non-Interest Income
	Investment Securities	Loans, Including Loans Held for Sale	Other	Interest- bearing Deposits	Securitized Debt Obligations	Senior and Subordinated Notes	Other
Total amounts presented in our consolidated statements of income	\$ 1,446	\$ 24,263	\$ 60	\$ (956)	\$ (119)	\$ (488)	\$ 826
Fair value hedging relationships:							
Interest rate and foreign exchange contracts:							
Interest recognized on derivatives	\$ (92)	\$ 0	\$ 0	\$ 126	\$ 123	\$ 209	\$ 0
Gains (losses) recognized on derivatives	207	0	0	(168)	(237)	(799)	(106)
Gains (losses) recognized on hedged items ⁽¹⁾	(299)	0	0	167	220	941	106
Excluded component of fair value hedges ⁽²⁾	0	0	0	0	0	(3)	0
Net income (expense) recognized on fair value hedges	<u>\$ (184)</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 125</u>	<u>\$ 106</u>	<u>\$ 348</u>	<u>\$ 0</u>
Cash flow hedging relationships:⁽³⁾							
Interest rate contracts:							
Realized gains reclassified from AOCI into net income	\$ 38	\$ 919	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Foreign exchange contracts:							
Realized gains reclassified from AOCI into net income ⁽⁴⁾	0	0	1	0	0	0	1
Net income (expense) recognized on cash flow hedges	<u>\$ 38</u>	<u>\$ 919</u>	<u>\$ 1</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 1</u>

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Year Ended December 31, 2020

<i>(Dollars in millions)</i>	Net Interest Income						Non-Interest Income
	Investment Securities	Loans, Including Loans Held for Sale	Other	Interest- bearing Deposits	Securitized Debt Obligations	Senior and Subordinated Notes	Other
Total amounts presented in our consolidated statements of income	\$ 1,877	\$ 24,074	\$ 82	\$ (2,165)	\$ (232)	\$ (679)	\$ 1,350
Fair value hedging relationships:							
Interest rate and foreign exchange contracts:							
Interest recognized on derivatives	\$ (76)	\$ 0	\$ 0	\$ 108	\$ 125	\$ 225	\$ 0
Gains (losses) recognized on derivatives	(306)	0	0	204	176	950	126
Gains (losses) recognized on hedged items ⁽¹⁾	290	0	0	(203)	(212)	(904)	(125)
Excluded component of fair value hedges ⁽²⁾	0	0	0	0	0	(3)	0
Net income (expense) recognized on fair value hedges	<u>\$ (92)</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 109</u>	<u>\$ 89</u>	<u>\$ 268</u>	<u>\$ 1</u>
Cash flow hedging relationships: ⁽³⁾							
Interest rate contracts:							
Realized gains reclassified from AOCI into net income	\$ 25	\$ 541	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Foreign exchange contracts:							
Realized gains (losses) reclassified from AOCI into net income ⁽⁴⁾	0	0	10	0	0	0	(1)
Net income (expense) recognized on cash flow hedges	<u>\$ 25</u>	<u>\$ 541</u>	<u>\$ 10</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ (1)</u>

⁽¹⁾ Includes amortization benefit of \$78 million and \$39 million for the years ended December 31, 2022 and 2021, respectively, and expense of \$12 million for year ended December 31, 2020, related to basis adjustments on discontinued hedges.

⁽²⁾ Changes in fair values of cross-currency swaps attributable to changes in cross-currency basis spreads are excluded from the assessment of hedge effectiveness and recorded in other comprehensive income ("OCI"). The initial value of the excluded component is recognized in earnings over the life of the swap under the amortization approach.

⁽³⁾ See "Note 10—Stockholders' Equity" for the effects of cash flow and net investment hedges on AOCI and amounts reclassified to net income, net of tax.

⁽⁴⁾ We recognized a loss of \$17 million for the year ended December 31, 2022, gain of \$163 million in 2021, and loss of \$57 million for year ended December 31, 2020, on foreign exchange contracts reclassified from AOCI. These amounts were largely offset by the foreign currency transaction gains (losses) on our foreign currency denominated intercompany funding included in other non-interest income on our consolidated statements of income.

In the next 12 months, we expect to reclassify into earnings a net after-tax loss of \$814 million recorded in AOCI as of December 31, 2022 associated with cash flow hedges of forecasted transactions. This amount will offset the cash flows associated with hedged forecasted transactions. The maximum length of time over which forecasted transactions were hedged was approximately 9.2 years as of December 31, 2022. The amount we expect to reclassify into earnings may change as a result of changes in market conditions and ongoing actions taken as part of our overall risk management strategy.

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Free-Standing Derivatives

The net impacts to our consolidated statements of income related to free-standing derivatives are presented below for the years ended December 31, 2022, 2021 and 2020. These gains or losses are recognized in other non-interest income on our consolidated statements of income.

Table 9.5: Gains (Losses) on Free-Standing Derivatives

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Gains (losses) recognized in other non-interest income:			
Customer accommodation:			
Interest rate contracts	\$ 40	\$ 32	\$ 15
Commodity contracts	49	28	32
Foreign exchange and other contracts	14	7	8
Total customer accommodation	103	67	55
Other interest rate exposures	76	(5)	(8)
Other contracts	(38)	(12)	(4)
Total	\$ 141	\$ 50	\$ 43

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NOTE 10—STOCKHOLDERS' EQUITY

Preferred Stock

The following table summarizes our preferred stock outstanding as of December 31, 2022 and 2021.

Table 10.1: Preferred Stock Outstanding⁽¹⁾

Series	Description	Issuance Date	Redeemable by Issuer Beginning	Per Annum Dividend Rate	Dividend Frequency	Liquidation Preference per Share	Total Shares Outstanding as of December 31, 2022	Carrying Value (in millions)	
								December 31, 2022	December 31, 2021
Series I	5.000% Non-Cumulative	September 11, 2019	December 1, 2024	5.000%	Quarterly	\$ 1,000	1,500,000	\$ 1,462	\$ 1,462
Series J	4.800% Non-Cumulative	January 31, 2020	June 1, 2025	4.800	Quarterly	1,000	1,250,000	1,209	1,209
Series K	4.625% Non-Cumulative	September 17, 2020	December 1, 2025	4.625	Quarterly	1,000	125,000	122	122
Series L	4.375% Non-Cumulative	May 4, 2021	September 1, 2026	4.375	Quarterly	1,000	675,000	652	652
Series M	3.950% Fixed Rate Reset Non-Cumulative	June 10, 2021	September 1, 2026	3.950% through 8/31/2026; resets 9/1/2026 and every subsequent 5 year anniversary at 5-Year Treasury Rate +3.157%	Quarterly	1,000	1,000,000	988	988
Series N	4.250% Non-Cumulative	July 29, 2021	September 1, 2026	4.250%	Quarterly	1,000	425,000	412	412
Total								\$ 4,845	\$ 4,845

⁽¹⁾ Except for Series M, ownership is held in the form of depositary shares, each representing a 1/40th interest in a share of fixed-rate non-cumulative perpetual preferred stock.

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Accumulated Other Comprehensive Income

AOCI primarily consists of accumulated net unrealized gains or losses associated with securities available for sale, changes in fair value of derivatives in hedging relationships and foreign currency translation adjustments.

The following table presents the changes in AOCI by component for the years ended December 31, 2022, 2021 and 2020.

Table 10.2: AOCI

<i>(Dollars in millions)</i>	Securities Available for Sale	Hedging Relationships⁽¹⁾	Foreign Currency Translation Adjustments⁽²⁾	Other	Total
AOCI as of December 31, 2019	\$ 935	\$ 354	\$ (107)	\$ (26)	\$ 1,156
Cumulative effects from the adoption of the CECL standard	(8)	0	0	0	(8)
Other comprehensive income before reclassifications	1,278	1,401	76	5	2,760
Amounts reclassified from AOCI into earnings	(19)	(393)	0	(2)	(414)
Other comprehensive income, net of tax	1,259	1,008	76	3	2,346
AOCI as of December 31, 2020	2,186	1,362	(31)	(23)	3,494
Other comprehensive income (loss) before reclassifications	(1,887)	(396)	10	7	(2,266)
Amounts reclassified from AOCI into earnings	(2)	(848)	0	(4)	(854)
Other comprehensive income (loss), net of tax	(1,889)	(1,244)	10	3	(3,120)
AOCI as of December 31, 2021	297	118	(21)	(20)	374
Other comprehensive income (loss) before reclassifications	(7,980)	(2,404)	1	(17)	(10,400)
Amounts reclassified from AOCI into earnings	7	104	0	(1)	110
Other comprehensive income (loss), net of tax	(7,973)	(2,300)	1	(18)	(10,290)
AOCI as of December 31, 2022	\$ (7,676)	\$ (2,182)	\$ (20)	\$ (38)	\$ (9,916)

⁽¹⁾ Includes amounts related to cash flow hedges as well as the excluded component of cross-currency swaps designated as fair value hedges.

⁽²⁾ Includes other comprehensive gains of \$305 million and \$22 million, and loss of \$65 million for the years ended December 31, 2022, 2021 and 2020, respectively, from hedging instruments designated as net investment hedges.

The following table presents amounts reclassified from each component of AOCI to our consolidated statements of income for the years ended December 31, 2022, 2021 and 2020.

Table 10.3: Reclassifications from AOCI

<i>(Dollars in millions)</i>		Year Ended December 31,		
		2022	2021	2020
AOCI Components	Affected Income Statement Line Item			
Securities available for sale:				
	Non-interest income (loss)	\$ (9)	\$ 2	\$ 25
	Income tax provision (benefit)	(2)	0	6
	Net income (loss)	(7)	2	19
Hedging relationships:				
Interest rate contracts:	Interest income (loss)	(121)	957	566
Foreign exchange contracts:	Interest income	3	1	10
	Interest expense	(3)	(3)	(3)
	Non-interest income (loss)	(17)	163	(57)
	Income (loss) from continuing operations before income taxes	(138)	1,118	516
	Income tax provision (benefit)	(34)	270	123
	Net income (loss)	(104)	848	393
Other:				
	Non-interest income and non-interest expense	1	5	2
	Income tax provision (benefit)	0	1	0
	Net income	1	4	2
Total reclassifications		\$ (110)	\$ 854	\$ 414

The table below summarizes other comprehensive income (loss) activity and the related tax impact for the years ended December 31, 2022 and 2021 and 2020.

Table 10.4: Other Comprehensive Income (Loss)

<i>(Dollars in millions)</i>	Year Ended December 31,								
	2022			2021			2020		
	Before Tax	Provision (Benefit)	After Tax	Before Tax	Provision (Benefit)	After Tax	Before Tax	Provision (Benefit)	After Tax
Other comprehensive income (loss):									
Net unrealized gains (losses) on securities available for sale	\$ (10,516)	\$ (2,543)	\$ (7,973)	\$ (2,486)	\$ (597)	\$ (1,889)	\$ 1,659	\$ 400	\$ 1,259
Net unrealized gains (losses) on hedging relationships	(3,032)	(732)	(2,300)	(1,640)	(396)	(1,244)	1,329	321	1,008
Foreign currency translation adjustments ⁽¹⁾	98	97	1	17	7	10	56	(20)	76
Other	(24)	(6)	(18)	4	1	3	4	1	3
Other comprehensive loss	\$ (13,474)	\$ (3,184)	\$ (10,290)	\$ (4,105)	\$ (985)	\$ (3,120)	\$ 3,048	\$ 702	\$ 2,346

⁽¹⁾ Includes the impact of hedging instruments designated as net investment hedges.

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NOTE 11—REGULATORY AND CAPITAL ADEQUACY

Regulation and Capital Adequacy

The Company and the Bank are subject to regulatory capital requirements established by the Board of Governors of the Federal Reserve System (“Federal Reserve”) and the Office of the Comptroller of the Currency (“OCC”), respectively (“Basel III Capital Rules”). The Basel III Capital Rules implement certain capital requirements published by the Basel Committee on Banking Supervision (“Basel Committee”), along with certain provisions of the Dodd-Frank Wall Street Reform and Consumer Production Act of 2010 (“Dodd-Frank Act”) and other capital provisions.

As a bank holding company (“BHC”) with total consolidated assets of at least \$250 billion but less than \$700 billion and not exceeding any of the applicable risk-based thresholds, the Company is a Category III institution under the Basel III Capital Rules.

The Bank, as a subsidiary of a Category III institution, is a Category III bank. Moreover, the Bank, as an insured depository institution, is subject to prompt corrective action (“PCA”) capital regulations.

Under the Basel III Capital Rules, we must maintain a minimum common equity Tier 1 (“CET1”) capital ratio of 4.5%, a Tier 1 capital ratio of 6.0% and a total capital ratio of 8.0%, in each case in relation to risk-weighted assets. In addition, we must maintain a minimum leverage ratio of 4.0% and a minimum supplementary leverage ratio of 3.0%. We are also subject to the standardized approach capital conservation buffer requirement, which includes the stress capital buffer requirement, any global systematically important banks (“G-SIB”) surcharge (which is not applicable to us) and the countercyclical capital buffer requirement (which is currently set at 0%). Our stress capital buffer requirement for the period beginning on October 1, 2022 through September 30, 2023 is 3.1%. Our capital and leverage ratios are calculated based on the Basel III standardized approach framework.

We have elected to exclude certain elements of AOCI from our regulatory capital as permitted for a Category III institution.

The Federal Reserve, OCC, and the Federal Deposit Insurance Corporation (collectively, “Federal Banking Agencies”) adopted a final rule (“CECL Transition Rule”) that provides banking institutions an optional five-year transition period to phase in the impact of the CECL standard on their regulatory capital (the “CECL Transition Election”). We adopted the CECL standard (for accounting purposes) as of January 1, 2020, and made the CECL Transition Election (for regulatory capital purposes) in the first quarter of 2020. Therefore, the applicable amounts presented in this Report reflect such election.

Pursuant to the CECL Transition Rule, a banking institution could elect to delay the estimated impact of adopting CECL on its regulatory capital through December 31, 2021 and then phase in the estimated cumulative impact from January 1, 2022 through December 31, 2024. For the “day 2” ongoing impact of CECL during the initial two years, the Federal Banking Agencies used a uniform “scaling factor” of 25% as an approximation of the increase in the allowance under the CECL standard compared to the prior incurred loss methodology. Accordingly, from January 1, 2020 through December 31, 2021, electing banking institutions were permitted to add back to their regulatory capital an amount equal to the sum of the after-tax “day 1” CECL adoption impact and 25% of the increase in the allowance since the adoption of the CECL standard. From January 1, 2022 through December 31, 2024, the after-tax “day 1” CECL adoption impact and the cumulative “day 2” ongoing impact are being phased in to regulatory capital at 25% per year. The following table summarizes the capital impact delay and phase in period on our regulatory capital from years 2020 to 2025.

	Capital Impact Delayed		Phase In Period			
	2020	2021	2022	2023	2024	2025
“Day 1” CECL adoption impact	Capital impact delayed to 2022					
Cumulative “day 2” ongoing impact	25% scaling factor as an approximation of the increase in allowance under CECL		25% Phased In	50% Phased In	75% Phased In	Fully Phased In

As of December 31, 2021, we added back an aggregate amount of \$2.4 billion to our regulatory capital pursuant to the CECL Transition Rule. Consistent with the rule, we phased in 25% of this amount, or \$599 million, on January 1, 2022, leaving

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\$1.8 billion to be phased in over 2023-2025. As of December 31, 2022, the Company’s CET1 capital ratio, reflecting the CECL Transition Rule, was 12.5% and would have been 12.0% excluding the impact of the CECL Transition Rule (or “on a fully phased-in basis”).

For additional information about the capital adequacy guidelines to which we are subject, see “Part I—Item 1. Business—Supervision and Regulation.”

The following table provides a comparison of our regulatory capital amounts and ratios under the Basel III standardized approach subject to the applicable transition provisions, the regulatory minimum capital adequacy ratios and the applicable well-capitalized standard for each ratio as of December 31, 2022 and 2021.

Table 11.1: Capital Ratios Under Basel III⁽¹⁾

<i>(Dollars in millions)</i>	December 31, 2022				December 31, 2021			
	Capital Amount	Capital Ratio	Minimum Capital Adequacy	Well-Capitalized	Capital Amount	Capital Ratio	Minimum Capital Adequacy	Well-Capitalized
Capital One Financial Corp:								
Common equity Tier 1 capital ⁽²⁾	\$ 44,731	12.5%	4.5%	N/A	\$ 43,501	13.1%	4.5%	N/A
Tier 1 capital ⁽³⁾	49,576	13.9	6.0	6.0%	48,346	14.5	6.0	6.0%
Total capital ⁽⁴⁾	56,714	15.8	8.0	10.0	56,089	16.9	8.0	10.0
Tier 1 leverage ⁽⁵⁾	49,576	11.1	4.0	N/A	48,346	11.6	4.0	N/A
Supplementary leverage ⁽⁶⁾	49,576	9.5	3.0	N/A	48,346	9.9	3.0	N/A
CONA:								
Common equity Tier 1 capital ⁽²⁾	46,630	13.1	4.5	6.5	26,699	11.1	4.5	6.5
Tier 1 capital ⁽³⁾	46,630	13.1	6.0	8.0	26,699	11.1	6.0	8.0
Total capital ⁽⁴⁾	51,165	14.4	8.0	10.0	29,449	12.2	8.0	10.0
Tier 1 leverage ⁽⁵⁾	46,630	10.5	4.0	5.0	26,699	7.4	4.0	5.0
Supplementary leverage ⁽⁶⁾	46,630	9.0	3.0	N/A	26,699	6.6	3.0	N/A

⁽¹⁾ Capital requirements that are not applicable are denoted by “N/A.”

⁽²⁾ Common equity Tier 1 capital ratio is a regulatory capital measure calculated based on common equity Tier 1 capital divided by risk-weighted assets.

⁽³⁾ Tier 1 capital ratio is a regulatory capital measure calculated based on Tier 1 capital divided by risk-weighted assets.

⁽⁴⁾ Total capital ratio is a regulatory capital measure calculated based on total capital divided by risk-weighted assets.

⁽⁵⁾ Tier 1 leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by adjusted average assets.

⁽⁶⁾ Supplementary leverage ratio is a regulatory capital measure calculated based on Tier 1 capital divided by total leverage exposure.

On October 1, 2022, COBNA merged with and into CONA, with CONA as the surviving entity. The capital ratios of COBNA immediately prior to the Bank Merger were higher than those of CONA, therefore increasing the capital ratios of CONA immediately after the Bank Merger and as of December 31, 2022. We exceeded the minimum capital requirements and the Bank exceeded the minimum regulatory requirements and was well-capitalized under PCA requirements as of both December 31, 2022 and 2021.

Regulatory restrictions exist that limit the ability of CONA to transfer funds to our BHC. As of December 31, 2022, funds available for dividend payments from the Bank were \$3.2 billion. Applicable provisions that may be contained in our borrowing agreements or the borrowing agreements of our subsidiaries may limit our subsidiaries’ ability to pay dividends to us or our ability to pay dividends to our stockholders. There can be no assurance that we will declare and pay any dividends to stockholders.

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NOTE 12—EARNINGS PER COMMON SHARE

The following table sets forth the computation of basic and diluted earnings per common share for the years ended December 31, 2022, 2021 and 2020. Dividends and undistributed earnings allocated to participating securities represent the application of the “two-class” method as described in “Note 1—Summary of Significant Accounting Policies.”

Table 12.1: Computation of Basic and Diluted Earnings per Common Share

	Year Ended December 31,		
	2022	2021	2020
<i>(Dollars and shares in millions, except per share data)</i>			
Income from continuing operations, net of tax	\$ 7,360	\$ 12,394	\$ 2,717
Income (loss) from discontinued operations, net of tax	0	(4)	(3)
Net income	7,360	12,390	2,714
Dividends and undistributed earnings allocated to participating securities	(88)	(105)	(20)
Preferred stock dividends	(228)	(274)	(280)
Issuance cost for redeemed preferred stock	0	(46)	(39)
Net income available to common stockholders	<u>\$ 7,044</u>	<u>\$ 11,965</u>	<u>\$ 2,375</u>
Total weighted-average basic common shares outstanding	391.8	442.5	457.8
Effect of dilutive securities: ⁽¹⁾			
Stock options	0.3	0.7	0.6
Other contingently issuable shares	1.1	1.0	0.5
Total effect of dilutive securities	<u>1.4</u>	<u>1.7</u>	<u>1.1</u>
Total weighted-average diluted common shares outstanding	<u>393.2</u>	<u>444.2</u>	<u>458.9</u>
Basic earnings per common share:			
Net income from continuing operations	\$ 17.98	\$ 27.05	\$ 5.20
Income (loss) from discontinued operations	0.00	(0.01)	(0.01)
Net income per basic common share	<u>\$ 17.98</u>	<u>\$ 27.04</u>	<u>\$ 5.19</u>
Diluted earnings per common share:⁽¹⁾			
Net income from continuing operations	\$ 17.91	\$ 26.95	\$ 5.19
Income (loss) from discontinued operations	0.00	(0.01)	(0.01)
Net income per diluted common share	<u>\$ 17.91</u>	<u>\$ 26.94</u>	<u>\$ 5.18</u>

⁽¹⁾ Excluded from the computation of diluted earnings per share were awards of 24 thousand shares and awards of 26 thousand shares for the years ended December 31, 2022 and 2021, respectively, awards of 6 thousand shares and options of 523 thousand with an exercise price ranging from \$63.73 to \$86.34 for the year ended December 31, 2020, because their inclusion would be anti-dilutive. There were no anti-dilutive stock options for the years ended December 31, 2022 and 2021.

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NOTE 13—STOCK-BASED COMPENSATION PLANS

Stock Plans

We have one active stock-based compensation plan available for the issuance of shares to employees and directors. As of December 31, 2022, under the Amended and Restated 2004 Stock Incentive plan (“2004 Plan”), we are authorized to issue 67 million common shares in various forms, primarily share-settled RSUs, performance share units (“PSUs”), and non-qualified stock options. Of this amount, approximately 13 million shares remain available for future issuance as of December 31, 2022. The 2004 Plan permits the use of newly issued shares or treasury shares upon the settlement of options and stock-based incentive awards, and we generally settle by issuing new shares.

We also issue cash-settled restricted stock units. These cash-settled units are not counted against the common shares authorized for issuance or available for issuance under the 2004 Plan. Cash-settled units vesting during 2022, 2021 and 2020 resulted in cash payments to associates of \$8 million, \$7 million and \$12 million, respectively. There was no unrecognized compensation cost for unvested cash-settled units as of December 31, 2022.

Total stock-based compensation expense recognized during 2022, 2021 and 2020 was \$314 million, \$331 million and \$203 million, respectively. The total income tax benefit for stock-based compensation recognized during 2022, 2021 and 2020 was \$75 million, \$62 million and \$43 million, respectively.

In addition, we maintain an Associate Stock Purchase Plan (“Purchase Plan”), which is a compensatory plan under the accounting guidance for stock-based compensation. Related to the Purchase Plan, we recognized compensation expense of \$36 million, \$33 million and \$30 million for 2022, 2021 and 2020, respectively. We also maintain a Dividend Reinvestment and Stock Purchase Plan, which allows participating stockholders to purchase additional shares of our common stock through automatic reinvestment of dividends or optional cash investments.

Restricted Stock Units and Performance Share Units

RSUs represent share-settled awards that do not contain performance conditions and are granted to certain employees at no cost to the recipient. RSUs generally vest over three years from the date of grant; however, some RSUs cliff vest on or shortly after the first or third anniversary of the grant date. RSUs are subject to forfeiture until certain restrictions have lapsed, including continued employment for a specified period of time.

PSUs represent share-settled awards that contain performance conditions and are granted to certain employees at no cost to the recipient. PSUs generally vest over three years from the date of grant; however, some PSUs cliff vest on or shortly after the third anniversary of the grant date. The number of PSUs that step vest over three years can be reduced by 50% or 100% depending on whether specific performance goals are met during the vesting period. The number of three-year cliff vesting PSUs that will ultimately vest is contingent upon meeting specific performance goals over a three-year period. These PSUs also include an opportunity to receive from 0% to 150% of the target number of common shares.

A recipient of an RSU or PSU is entitled to receive a share of common stock after the applicable restrictions lapse and is generally entitled to receive cash payments or additional shares of common stock equivalent to any dividends paid on the underlying common stock during the period the RSU or PSU is outstanding, but is not entitled to voting rights. Generally, the value of RSUs and PSUs will equal the fair value of our common stock on the date of grant and the expense is recognized over the vesting period. Certain PSUs have discretionary vesting conditions and are remeasured at fair value each reporting period.

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The following table presents a summary of 2022 activity for RSUs and PSUs.

Table 13.1: Summary of Restricted Stock Units and Performance Share Units

<i>(Shares/units in thousands)</i>	Restricted Stock Units		Performance Share Units ⁽¹⁾	
	Units	Weighted-Average Grant Date Fair Value per Unit	Units	Weighted-Average Grant Date Fair Value per Unit
Unvested as of January 1, 2022	4,110	\$ 104.50	1,765	\$ 102.84
Granted ⁽²⁾	2,987	141.71	870	139.00
Vested	(1,696)	103.43	(888)	93.37
Forfeited	(345)	132.68	(44)	129.28
Unvested as of December 31, 2022	5,056	\$ 124.92	1,703	\$ 125.55

⁽¹⁾ Granted and vested include adjustments for achievement of specific performance goals for performance share units granted in prior periods.

⁽²⁾ The weighted-average grant date fair value of RSUs was \$127.37 and \$92.04 in 2021 and 2020, respectively. The weighted-average grant date fair value of PSUs was \$112.51 and \$100.04 in 2021 and 2020, respectively.

The total fair value of RSUs that vested during 2022, 2021 and 2020 was \$248 million, \$202 million and \$140 million, respectively. The total fair value of PSUs that vested was \$127 million, \$94 million and \$82 million in 2022, 2021 and 2020, respectively. As of December 31, 2022, the unrecognized compensation expense related to unvested RSUs is \$372 million, which is expected to be amortized over a weighted-average period of approximately 1.9 years; and the unrecognized compensation related to unvested PSUs was \$31 million, which is expected to be amortized over a weighted-average period of approximately one year.

Stock Options

Stock options have a maximum contractual term of 10 years. Generally, the exercise price of stock options will equal the fair market value of our common stock on the date of grant. Option vesting is determined at the time of grant and may be subject to the achievement of any applicable performance conditions. Options generally become exercisable over three years beginning on the first anniversary of the date of grant; however, some option grants cliff vest on or shortly after the first or third anniversary of the grant date.

The following table presents a summary of 2022 activity for stock options and the balance of stock options exercisable as of December 31, 2022.

Table 13.2: Summary of Stock Options Activity

<i>(Shares in thousands, and intrinsic value in millions)</i>	Shares Subject to Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding as of January 1, 2022	875	\$ 67.92		
Granted	0	0.00		
Exercised	(334)	56.26		
Forfeited	0	0.00		
Expired	0	0.00		
Outstanding and Exercisable as of December 31, 2022	541	\$ 75.12	2.80 years	\$ 10

There were no stock options granted in 2022, 2021 and 2020. The total intrinsic value of stock options exercised during 2022, 2021 and 2020 was \$18 million, \$80 million and \$65 million, respectively.

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NOTE 14—EMPLOYEE BENEFIT PLANS

Defined Contribution Plan

We sponsor a contributory Associate Savings Plan (the “Plan”) in which all full-time and part-time associates over the age of 18 are eligible to participate. We make non-elective contributions to each eligible associate’s account and match a portion of associate contributions. We also sponsor a voluntary non-qualified deferred compensation plan in which select groups of employees are eligible to participate. We make contributions to this plan based on participants’ deferral of salary, bonuses and other eligible pay. In addition, we match participants’ excess compensation (compensation over the Internal Revenue Service (“IRS”) compensation limit) less deferrals. We contributed a total of \$444 million, \$378 million and \$350 million to these plans during the years ended December 31, 2022, 2021 and 2020, respectively.

Defined Benefit Pension and Other Postretirement Benefit Plans

We sponsor several frozen plans, including a qualified defined benefit pension plan, several non-qualified defined benefit pension plans, and a plan that provides other postretirement benefits, including medical and life insurance coverage. Our pension plans and the other postretirement benefit plan are valued using December 31 as the measurement date each year. Our policy is to amortize prior service amounts on a straight-line basis over the average remaining years of service to full eligibility for benefits of active plan participants.

The following table sets forth, on an aggregated basis, changes in the benefit obligation and plan assets, the funded status and how the funded status is recognized on our consolidated balance sheets.

Table 14.1: Changes in Benefit Obligation and Plan Assets

	Defined Pension Benefits		Other Postretirement Benefits	
	2022	2021	2022	2021
<i>(Dollars in millions)</i>				
Change in benefit obligation:				
Accumulated benefit obligation as of January 1,	\$ 163	\$ 178	\$ 16	\$ 21
Service cost	1	1	0	0
Interest cost	4	4	0	0
Benefits paid	(11)	(12)	(1)	(2)
Actuarial loss (gain)	(29)	(8)	(3)	(3)
Accumulated benefit obligation as of December 31,	<u>\$ 128</u>	<u>\$ 163</u>	<u>\$ 12</u>	<u>\$ 16</u>
Change in plan assets:				
Fair value of plan assets as of January 1,	\$ 273	\$ 274	\$ 6	\$ 6
Actual return on plan assets	(41)	10	(1)	1
Employer contributions	1	1	1	1
Benefits paid	(11)	(12)	(1)	(2)
Fair value of plan assets as of December 31,	<u>\$ 222</u>	<u>\$ 273</u>	<u>\$ 5</u>	<u>\$ 6</u>
Over (under) funded status as of December 31,	<u>\$ 94</u>	<u>\$ 110</u>	<u>\$ (7)</u>	<u>\$ (10)</u>
<i>(Dollars in millions)</i>				
Balance sheet presentation as of December 31,				
Other assets	\$ 102	\$ 121	\$ 0	\$ 0
Other liabilities	(8)	(11)	(7)	(10)
Net amount recognized as of December 31,	<u>\$ 94</u>	<u>\$ 110</u>	<u>\$ (7)</u>	<u>\$ (10)</u>

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Net periodic benefit gain for our defined benefit pension plans and other postretirement benefit plan totaled \$8 million, \$12 million, and \$8 million in 2022, 2021 and 2020, respectively. We recognized a pre-tax loss of \$24 million in 2022 and pre-tax gains of \$4 million in other comprehensive income for our defined benefit pension plans and other postretirement benefit plan in both 2021 and 2020.

Pre-tax amounts recognized in AOCI that have not yet been recognized as a component of net periodic benefit cost consist of net actuarial losses of \$57 million and \$33 million for our defined benefit pension plans as of December 31, 2022 and 2021, respectively, and net actuarial gains of \$3 million for our other postretirement benefit plan as of both December 31, 2022 and 2021. There was no meaningful prior service cost recognized in AOCI.

Plan Assets and Fair Value Measurement

Plan assets are invested using a total return investment approach whereby a mix of equity securities and debt securities are used to preserve asset values, diversify risk and enhance our ability to achieve our benchmark for long-term investment return. Investment strategies and asset allocations are based on careful consideration of plan liabilities, the plan's funded status and our financial condition. Investment performance and asset allocation are measured and monitored on a daily basis.

As of December 31, 2022 and 2021, our plan assets totaled \$227 million and \$279 million, respectively. We invested substantially all our plan assets in common collective trusts, which primarily consist of domestic and international equity securities, government securities and corporate and municipal bonds. Our plan assets were classified as Level 2 in the fair value hierarchy as of December 31, 2022 and 2021. For information on fair value measurements, including descriptions of Level 1, 2 and 3 of the fair value hierarchy, see "Note 16—Fair Value Measurement."

Expected Future Benefit Payments

As of December 31, 2022, the benefits expected to be paid in the next ten years totaled \$108 million for our defined pension benefit plans and \$11 million for our other postretirement benefit plan, respectively.

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NOTE 15—INCOME TAXES

We recognize the current and deferred tax consequences of all transactions that have been recognized in the financial statements using the provisions of the enacted tax laws. Current income tax expense represents our estimated taxes to be paid or refunded for the current period and includes income tax expense related to our uncertain tax positions, as well as tax-related interest and penalties. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. We record valuation allowances to reduce deferred tax assets to the amount that is more likely than not to be realized. We record the effect of remeasuring deferred tax assets and liabilities due to a change in tax rates or laws as a component of income tax expense related to continuing operations for the period in which the change is enacted. We subsequently release income tax effects stranded in AOCI using a portfolio approach. Income tax benefits are recognized when, based on their technical merits, they are more likely than not to be sustained upon examination. The amount recognized is the largest amount of benefit that is more likely than not to be realized upon settlement.

The following table presents significant components of the provision for income taxes attributable to continuing operations for the years ended December 31, 2022, 2021 and 2020.

Table 15.1: Significant Components of the Provision for Income Taxes Attributable to Continuing Operations

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Current income tax provision:			
Federal taxes	\$ 2,125	\$ 2,173	\$ 1,676
State taxes	423	485	370
International taxes	104	152	67
Total current provision	\$ 2,652	\$ 2,810	\$ 2,113
Deferred income tax provision (benefit):			
Federal taxes	\$ (662)	\$ 490	\$ (1,357)
State taxes	(112)	91	(266)
International taxes	2	24	(4)
Total deferred provision (benefit)	(772)	605	(1,627)
Total income tax provision	\$ 1,880	\$ 3,415	\$ 486

The international income tax provision is related to pre-tax earnings from foreign operations of approximately \$462 million, \$677 million and \$293 million in 2022, 2021 and 2020, respectively.

Total income tax provision does not reflect the tax effects of items that are included in AOCI, which include a tax benefit of \$3.2 billion and \$985 million in 2022 and 2021, respectively, and tax provision of \$702 million in 2020. See “Note 10—Stockholders’ Equity” for additional information.

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The following table presents the reconciliation of the U.S. federal statutory income tax rate to the effective income tax rate applicable to income from continuing operations for the years ended December 31, 2022, 2021 and 2020.

Table 15.2: Effective Income Tax Rate

	Year Ended December 31,		
	2022	2021	2020
Income tax at U.S. federal statutory tax rate	21.0 %	21.0 %	21.0 %
State taxes, net of federal benefit	3.1	3.1	3.5
Non-deductible expenses	0.6	0.4	3.2
Affordable housing, new markets and other tax credits	(4.2)	(2.3)	(11.4)
Tax-exempt interest and other nontaxable income	(0.4)	(0.3)	(1.7)
Changes in valuation allowance	1.0	0.4	2.3
Other, net	(0.8)	(0.7)	(1.7)
Effective income tax rate	<u>20.3 %</u>	<u>21.6 %</u>	<u>15.2 %</u>

The following table presents significant components of our deferred tax assets and liabilities as of December 31, 2022 and 2021. The valuation allowance below represents the adjustment of our foreign tax credit carryforward, certain state deferred tax assets and net operating loss carryforwards to the amount we have determined is more likely than not to be realized.

Table 15.3: Significant Components of Deferred Tax Assets and Liabilities

<i>(Dollars in millions)</i>	December 31, 2022	December 31, 2021
Deferred tax assets:		
Allowance for credit losses	\$ 3,025	\$ 2,657
Security and loan valuations	2,497	0
Rewards programs	790	825
Net unrealized loss on derivatives	689	0
Net operating loss and tax credit carryforwards	437	367
Compensation and employee benefits	411	337
Lease liabilities	346	345
Partnership investments	253	238
Other assets	507	359
Subtotal	<u>8,955</u>	<u>5,128</u>
Valuation allowance	(446)	(355)
Total deferred tax assets	<u>8,509</u>	<u>4,773</u>
Deferred tax liabilities:		
Right-of-use assets	284	284
Original issue discount	241	361
Partnership investments	119	128
Mortgage servicing rights	95	88
Security and loan valuations	0	49
Net unrealized gains on derivatives	0	32
Other liabilities	111	123
Total deferred tax liabilities	<u>850</u>	<u>1,065</u>
Net deferred tax assets	<u>\$ 7,659</u>	<u>\$ 3,708</u>

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Our gross federal net operating loss carryforwards were \$13 million and \$25 million as of December 31, 2022 and 2021, respectively. These operating loss carryforwards were attributable to acquisitions, and none of the \$13 million of operating loss carryforwards are subject to expiration. Under IRS rules, our ability to utilize these losses against future income is limited. The net tax values of our state net operating loss carryforwards were \$267 million and \$258 million as of December 31, 2022 and 2021, respectively, and they will expire from 2023 to 2041. Our foreign tax credit carryforwards were \$166 million and \$91 million as of December 31, 2022 and 2021, respectively, and they will expire from 2028 to 2032.

Our valuation allowance increased by \$91 million to \$446 million as of December 31, 2022 compared to \$355 million as of December 31, 2021. Of the total increase, \$75 million is related to the current year increase in our foreign tax credit carryforwards that will not be realized prior to expiration and \$15 million is related to reducing state net operating losses and interest carryforwards to the amount we have determined is more likely than not to be realized.

We recognize accrued interest and penalties related to income taxes as a component of income tax expense. We recognized a \$1 million and \$30 million tax benefit in 2022 and 2021, respectively, and \$16 million of such expense in 2020.

The following table presents the accrued balance of tax, interest and penalties related to unrecognized tax benefits.

Table 15.4: Reconciliation of the Change in Unrecognized Tax Benefits

<i>(Dollars in millions)</i>	Gross Unrecognized Tax Benefits	Accrued Interest and Penalties	Gross Tax, Interest and Penalties
Balance as of January 1, 2020	\$ 431	\$ 31	\$ 462
Additions for tax positions related to the current year	33	0	33
Additions for tax positions related to prior years	3	21	24
Reductions for tax positions related to prior years due to IRS and other settlements	(16)	(6)	(22)
Balance as of December 31, 2020	451	46	497
Additions for tax positions related to prior years	1	4	5
Reductions for tax positions related to prior years due to IRS and other settlements	(47)	(36)	(83)
Balance as of December 31, 2021	405	14	419
Additions for tax positions related to the current year	3	0	3
Additions for tax positions related to prior years	14	6	20
Reductions for tax positions related to prior years due to IRS and other settlements	(381)	(10)	(391)
Balance as of December 31, 2022	\$ 41	\$ 10	\$ 51
Portion of balance at December 31, 2022 that, if recognized, would impact the effective income tax rate	\$ 32	\$ 8	\$ 40

We are subject to examination by the IRS and other tax authorities in certain countries and states in which we operate. The tax years subject to examination vary by jurisdiction. During 2022, we continued to participate in the IRS Compliance Assurance Process (“CAP”) for our open federal income tax return years and have been accepted into CAP for 2023. During 2022, the IRS review of our 2017, 2018, 2019, and 2020 federal income tax returns was completed, with the Company due a net refund of tax and interest and these years are now closed. We expect that the IRS review of our 2021 federal income tax return will be completed in 2023, as only one issue remains under review post-filing. We also expect that the IRS review of our 2022 federal income tax return will be substantially completed in 2023 prior to its filing.

It is reasonably possible that further adjustments to the Company’s unrecognized tax benefits may be made within 12 months of the reporting date as a result of future judicial or regulatory interpretations of existing tax laws. At this time, an estimate of the potential changes to the amount of unrecognized tax benefits cannot be made.

As of December 31, 2022, the Company had approximately \$1.7 billion of unremitted earnings of subsidiaries operating outside the U.S. that upon repatriation would have no additional U.S. income taxes. In accordance with the guidance for accounting for income taxes in special areas, nearly all these earnings are considered by management to be invested indefinitely.

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As of December 31, 2022, U.S. income taxes of \$69 million have not been provided for approximately \$287 million of previously acquired thrift bad debt reserves created for tax purposes as of December 31, 1987. These amounts, acquired as a result of previous mergers and acquisitions, are subject to recapture in the unlikely event that CONA, as the successor to the merged and acquired entities, makes distributions in excess of earnings and profits, redeems its stock or liquidates.

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NOTE 16—FAIR VALUE MEASUREMENT

Fair value, also referred to as an exit price, is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value accounting guidance provides a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on the markets in which the assets or liabilities trade and whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. The fair value measurement of a financial asset or liability is assigned a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are described below:

- Level 1: Valuation is based on quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Valuation is based on observable market-based inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Valuation is generated from techniques that use significant assumptions not observable in the market. Valuation techniques include pricing models, discounted cash flow methodologies or similar techniques.

The accounting guidance for fair value measurements requires that we maximize the use of observable inputs and minimize the use of unobservable inputs in determining fair value. We consider all available information, including observable market data, indications of market liquidity and orderliness, and our understanding of the valuation techniques and significant inputs. Based upon the specific facts and circumstances of each instrument or instrument category, judgments are made regarding the significance of the observable or unobservable inputs to the instruments' fair value measurement in its entirety. If unobservable inputs are considered significant, the instrument is classified as Level 3. The process for determining fair value using unobservable inputs is generally more subjective and involves a high degree of management judgment and assumptions. The accounting guidance provides for the irrevocable option to elect, on a contract-by-contract basis, to measure certain financial assets and liabilities at fair value at inception of the contract and record any subsequent changes in fair value in earnings.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following describes the valuation techniques used in estimating the fair value of our financial assets and liabilities recorded at fair value on a recurring basis. The determination of the leveling of financial instruments in the fair value hierarchy is performed at the end of each reporting period.

Investment Securities

We measure the fair value of our U.S. Treasury securities using quoted prices in active markets. For the majority of securities in other investment categories, we utilize multiple vendor pricing services to obtain fair value measurements. We use a waterfall of pricing vendors determined using our annual assessment of pricing service performance. A pricing service may be considered as the preferred or primary pricing provider depending on how closely aligned its prices are to other vendor prices, and how consistent the prices are with other available market information. The price of each security is confirmed by comparing such price to other vendor prices before it is finalized.

RMBS and CMBS are generally classified as Level 2 or 3. When significant assumptions are not consistently observable, fair values are derived using the best available data. Such data may include quotes provided by dealers, valuation from external pricing services, independent pricing models, or other model-based valuation techniques, for example, calculation of the present values of future cash flows incorporating assumptions such as benchmark yields, spreads, prepayment speeds, credit ratings and losses. Generally, the external pricing services utilize observable market data to the extent available. Pricing models may be used, which can vary by asset class, and may also incorporate available trade, bid and other market information. Across asset classes, information such as trader/dealer inputs, credit spreads, forward curves and prepayment speeds are used to help determine appropriate valuations. Because many fixed income securities do not trade on a daily basis, the pricing models may apply available information through processes such as benchmarking curves, grouping securities based on their characteristics and using matrix pricing to prepare valuations. In addition, model processes are used by the pricing services to develop prepayment assumptions.

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We validate the pricing obtained from the primary pricing providers through comparison of pricing to additional sources, including other pricing services, dealer pricing indications in transaction results and other internal sources. Pricing variances among different pricing sources are analyzed. Additionally, on an on-going basis, we request more detailed information from the valuation vendors to understand the pricing methodology and assumptions used to value the securities.

Derivative Assets and Liabilities

We use both exchange-traded and OTC derivatives to manage our interest rate, foreign currency and commodity risk exposures. When quoted market prices are available and used to value our exchange-traded derivatives, we classify them as Level 1. However, the majority of our derivatives do not have readily available quoted market prices. Therefore, we value most of our derivatives using vendor-based models. We primarily rely on market observable inputs for these models, including, for example, interest rate yield curves, credit curves, option volatility and currency rates. These inputs can vary depending on the type of derivatives and nature of the underlying rate, price or index upon which the value of the derivative is based. We typically classify derivatives as Level 2 when significant inputs can be observed in a liquid market and the model itself does not require significant judgment. When instruments are traded in less liquid markets and significant inputs are unobservable, such as interest rate swaps whose remaining terms do not correlate with market observable interest rate yield curves, such derivatives are classified as Level 3. We consider the impact of credit risk valuation adjustments when measuring the fair value of derivative contracts in order to reflect the credit quality of the counterparty and our own credit quality. Our internal pricing is compared against additional pricing sources such as external valuation agents and other internal sources. Pricing variances among different pricing sources are analyzed and validated. These derivatives are included in other assets or other liabilities on our consolidated balance sheets.

Loans Held for Sale

In our commercial business, we originate multifamily commercial real estate loans with the intent to sell them to GSEs. We elect the fair value option for such loans as part of our management of interest rate risk in our multifamily agency business. These held for sale loans are valued based on market observable inputs and are therefore classified as Level 2. Unrealized gains and losses on these loans are recorded in other non-interest income in our consolidated statements of income.

Retained Interests in Securitizations

We have retained interests in various mortgage securitizations from previous acquisitions. Our retained interests primarily include interest-only bonds and negative amortization bonds. We record these retained interests at fair value using market indications and valuation models to calculate the present value of future cash flows. Due to the use of significant unobservable inputs such as prepayment and discount rate assumptions, retained interests in securitizations are classified as Level 3 under the fair value hierarchy.

Deferred Compensation Plan Assets

We offer a voluntary non-qualified deferred compensation plan to eligible associates. In addition to participant deferrals, we make contributions to the plan. Participants invest these contributions in a variety of publicly traded mutual funds. The plan assets, which consist of publicly traded mutual funds, are classified as Level 1.

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The following table displays our assets and liabilities measured on our consolidated balance sheets at fair value on a recurring basis as of December 31, 2022 and 2021.

Table 16.1: Assets and Liabilities Measured at Fair Value on a Recurring Basis

<i>(Dollars in millions)</i>	December 31, 2022						
	Fair Value Measurements Using			Netting Adjustments ⁽¹⁾	Total		
	Level 1	Level 2	Level 3				
Assets:							
Securities available for sale:							
U.S. Treasury securities	\$ 5,041	\$ 0	\$ 0	—	\$ 5,041		
RMBS	0	62,353	236	—	62,589		
CMBS	0	7,728	142	—	7,870		
Other securities	186	1,233	0	—	1,419		
Total securities available for sale	5,227	71,314	378	—	76,919		
Loans held for sale	0	191	0	—	191		
Other assets:							
Derivative assets ⁽²⁾	474	2,545	79	\$ (1,134)	1,964		
Other ⁽³⁾	464	3	36	—	503		
Total assets	\$ 6,165	\$ 74,053	\$ 493	\$ (1,134)	\$ 79,577		
Liabilities:							
Other liabilities:							
Derivative liabilities ⁽²⁾	\$ 823	\$ 3,653	\$ 74	\$ (1,235)	\$ 3,315		
Total liabilities	\$ 823	\$ 3,653	\$ 74	\$ (1,235)	\$ 3,315		
December 31, 2021							
<i>(Dollars in millions)</i>	Fair Value Measurements Using						
	Level 1			Level 2	Level 3	Netting Adjustments ⁽¹⁾	Total
	Level 1	Level 2	Level 3				
Assets:							
Securities available for sale:							
U.S. Treasury securities	\$ 9,442	\$ 0	\$ 0	—	\$ 9,442		
RMBS	0	73,358	258	—	73,616		
CMBS	0	9,360	9	—	9,369		
Other securities	206	2,628	0	—	2,834		
Total securities available for sale	9,648	85,346	267	—	95,261		
Loans held for sale	0	1,026	0	—	1,026		
Other assets:							
Derivative assets ⁽²⁾	406	2,200	84	\$ (542)	2,148		
Other ⁽³⁾	526	6	41	—	573		
Total assets	\$ 10,580	\$ 88,578	\$ 392	\$ (542)	\$ 99,008		
Liabilities:							
Other liabilities:							
Derivative liabilities ⁽²⁾	\$ 838	\$ 965	\$ 65	\$ (544)	\$ 1,324		
Total liabilities	\$ 838	\$ 965	\$ 65	\$ (544)	\$ 1,324		

⁽¹⁾ Represents balance sheet netting of derivative assets and liabilities, and related payables and receivables for cash collateral held or placed with the same counterparty. See “Note 9—Derivative Instruments and Hedging Activities” for additional information.

⁽²⁾ Does not reflect \$4 million and \$11 million recognized as a net valuation allowance on derivative assets and liabilities for non-performance risk as of December 31, 2022 and 2021, respectively. Non-performance risk is included in the measurement of derivative assets and liabilities on our consolidated balance sheets, and is recorded through non-interest income in the consolidated statements of income.

⁽³⁾ As of December 31, 2022 and 2021, other includes retained interests in securitizations of \$36 million and \$41 million, deferred compensation plan assets of \$453 million and \$490 million, and equity securities of \$14 million (including unrealized losses of \$23 million) and \$42 million (including unrealized losses of \$36 million), respectively.

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Level 3 Recurring Fair Value Rollforward

The table below presents a reconciliation for all assets and liabilities measured and recognized at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended December 31, 2022, 2021 and 2020. Generally, transfers into Level 3 were primarily driven by the usage of unobservable assumptions in the pricing of these financial instruments as evidenced by wider pricing variations among pricing vendors and transfers out of Level 3 were primarily driven by the usage of assumptions corroborated by market observable information as evidenced by tighter pricing among multiple pricing sources.

Table 16.2: Level 3 Recurring Fair Value Rollforward

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)											
Year Ended December 31, 2022											
<i>(Dollars in millions)</i>	Balance, January 1, 2022	Total Gains (Losses) (Realized/Unrealized)		Purchases	Sales	Issuances	Settlements	Transfers Into Level 3	Transfers Out of Level 3	Balance, December 31, 2022	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2022 ⁽¹⁾
		Included in Net Income ⁽¹⁾	Included in OCI								
Securities available for sale:⁽²⁾											
RMBS	\$ 258	\$ 18	\$ (32)	\$ 0	\$ 0	\$ 0	\$ (60)	\$ 123	\$ (71)	\$ 236	\$ 10
CMBS	9	(1)	(3)	0	0	0	(15)	190	(38)	142	(1)
Total securities available for sale . .	<u>267</u>	<u>17</u>	<u>(35)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(75)</u>	<u>313</u>	<u>(109)</u>	<u>378</u>	<u>9</u>
Other assets:											
Retained interests in securitizations .	41	(5)	0	0	0	0	0	0	0	36	(5)
Net derivative assets (liabilities) ⁽³⁾	19	(65)	0	0	0	36	3	(28)	40	5	(33)

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)											
Year Ended December 31, 2021											
<i>(Dollars in millions)</i>	Balance, January 1, 2021	Total Gains (Losses) (Realized/Unrealized)		Purchases	Sales	Issuances	Settlements	Transfers Into Level 3	Transfers Out of Level 3	Balance, December 31, 2021	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2021 ⁽¹⁾
		Included in Net Income ⁽¹⁾	Included in OCI								
Securities available for sale:⁽²⁾											
RMBS	\$ 328	\$ 18	\$ 5	\$ 0	\$ 0	\$ 0	\$ (91)	\$ 106	\$ (108)	\$ 258	\$ 15
CMBS	111	0	(2)	0	0	0	(7)	0	(93)	9	0
Total securities available for sale . .	<u>439</u>	<u>18</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(98)</u>	<u>106</u>	<u>(201)</u>	<u>267</u>	<u>15</u>
Other assets:											
Retained interests in securitizations .	55	(14)	0	0	0	0	0	0	0	41	(14)
Net derivative assets (liabilities) ⁽³⁾	31	(43)	0	0	0	68	(37)	6	(6)	19	(20)

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Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

<i>(Dollars in millions)</i>	Year Ended December 31, 2020									Balance, December 31, 2020	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2020 ⁽¹⁾	
	Balance, January 1, 2020	Total Gains (Losses) (Realized/Unrealized)		Purchases	Sales	Issuances	Settlements	Transfers Into Level 3	Transfers Out of Level 3			
	Included in Net Income ⁽¹⁾	Included in OCI										
Securities available for sale: ⁽²⁾⁽⁴⁾												
RMBS	\$ 433	\$ 22	\$ (19)	\$ 0	\$ 0	\$ 0	\$ (72)	\$ 206	\$ (242)	\$ 328	\$ 16	
CMBS	13	(3)	(9)	0	0	0	(32)	371	(229)	111	0	
Total securities available for sale . .	<u>446</u>	<u>19</u>	<u>(28)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(104)</u>	<u>577</u>	<u>(471)</u>	<u>439</u>	<u>16</u>	
Other assets:												
Retained interests in securitizations . . .	66	(11)	0	0	0	0	0	0	0	55	(11)	
Net derivative assets (liabilities) ⁽³⁾	26	10	0	0	0	43	(37)	0	(11)	31	10	

⁽¹⁾ Realized gains (losses) on securities available for sale are included in net securities gains (losses) and retained interests in securitizations are reported as a component of non-interest income in our consolidated statements of income. Gains (losses) on derivatives are included as a component of net interest income or non-interest income in our consolidated statements of income.

⁽²⁾ Net unrealized losses included in other comprehensive income related to Level 3 securities available for sale still held as of December 31, 2022 were \$57 million. Net unrealized losses included in other comprehensive income related to Level 3 securities available for sale still held as of December 31, 2021 were \$4 million. Net unrealized losses included in other comprehensive income related to Level 3 securities available for sale still held as of December 31, 2020 were \$21 million.

⁽³⁾ Includes derivative assets and liabilities of \$79 million and \$74 million, respectively, as of December 31, 2022 and \$84 million and \$65 million, respectively, as of December 31, 2021, and \$141 million and \$110 million, respectively, as of December 31, 2020.

⁽⁴⁾ The fair value of RMBS as of January 1, 2020 includes a cumulative adjustment of \$4 million from the adoption of the CECL standard.

Significant Level 3 Fair Value Asset and Liability Inputs

Generally, uncertainties in fair value measurements of financial instruments, such as changes in unobservable inputs, may have a significant impact on fair value. Certain of these unobservable inputs will, in isolation, have a directionally consistent impact on the fair value of the instrument for a given change in that input. Alternatively, the fair value of the instrument may move in an opposite direction for a given change in another input. In general, an increase in the discount rate, default rates, loss severity or credit spreads, in isolation, would result in a decrease in the fair value measurement. In addition, an increase in default rates would generally be accompanied by a decrease in recovery rates, slower prepayment rates and an increase in liquidity spreads, and would lead to a decrease in the fair value measurement.

Techniques and Inputs for Level 3 Fair Value Measurements

The following table presents the significant unobservable inputs used to determine the fair values of our Level 3 financial instruments on a recurring basis. We utilize multiple vendor pricing services to obtain fair value for our securities. Several of our vendor pricing services are only able to provide unobservable input information for a limited number of securities due to software licensing restrictions. Other vendor pricing services are able to provide unobservable input information for all securities for which they provide a valuation. As a result, the unobservable input information for the securities available for sale presented below represents a composite summary of all information we are able to obtain. The unobservable input information for all other Level 3 financial instruments is based on the assumptions used in our internal valuation models.

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Table 16.3: Quantitative Information about Level 3 Fair Value Measurements

Quantitative Information about Level 3 Fair Value Measurements					
<i>(Dollars in millions)</i>	Fair Value at December 31, 2022	Significant Valuation Techniques	Significant Unobservable Inputs	Range	Weighted Average ⁽¹⁾
Securities available for sale:					
RMBS	\$ 236	Discounted cash flows (vendor pricing)	Yield	3-12%	7%
			Voluntary prepayment rate	4-20%	8%
			Default rate	0-11%	2%
			Loss severity	30-80%	58%
CMBS	142	Discounted cash flows (vendor pricing)	Yield	4-5%	5%
Other assets:					
Retained interests in securitizations ⁽²⁾	36	Discounted cash flows	Life of receivables (months)	30-43	N/A
			Voluntary prepayment rate	9-18%	
			Discount rate	4-7%	
			Default rate	1%	
Net derivative assets (liabilities)	5	Discounted cash flows	Swap rates	3-4%	4%

Quantitative Information about Level 3 Fair Value Measurements					
<i>(Dollars in millions)</i>	Fair Value at December 31, 2021	Significant Valuation Techniques	Significant Unobservable Inputs	Range	Weighted Average ⁽¹⁾
Securities available for sale:					
RMBS	\$ 258	Discounted cash flows (vendor pricing)	Yield	0-21%	3%
			Voluntary prepayment rate	5-40%	11%
			Default rate	1-11%	2%
			Loss severity	30-100%	65%
CMBS	9	Discounted cash flows (vendor pricing)	Yield	1-2%	1%
Other assets:					
Retained interests in securitizations ⁽²⁾	41	Discounted cash flows	Life of receivables (months)	29-36	N/A
			Voluntary prepayment rate	9-18%	
			Discount rate	2-8%	
			Default rate	3-4%	
Net derivative assets (liabilities)	19	Discounted cash flows	Swap rates	1-2%	2%

⁽¹⁾ Weighted averages are calculated by using the product of the input multiplied by the relative fair value of the instruments.

⁽²⁾ Due to the nature of the various mortgage securitization structures in which we have retained interests, it is not meaningful to present a consolidated weighted average for the significant unobservable inputs.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

We are required to measure and recognize certain assets at fair value on a nonrecurring basis on the consolidated balance sheets. These assets are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances (for example, from the application of lower of cost or fair value accounting or when we evaluate for impairment). The following describes the valuation techniques used in estimating the fair value of our financial assets and liabilities recorded at fair value on a nonrecurring basis.

Net Loans Held for Investment

Loans held for investment that are recorded at fair value on our consolidated balance sheets on a nonrecurring basis largely consist of impaired loans for which impairment is measured based upon the fair value of the underlying collateral. The fair value is determined using appraisal values that are obtained from independent appraisers, broker pricing opinions or other available market information, adjusted for the estimated cost to sell. Due to the use of significant unobservable inputs, these

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loans are classified as Level 3 under the fair value hierarchy. Fair value adjustments for individually impaired collateralized loans held for investment are recorded in provision for credit losses in the consolidated statements of income.

Loans Held for Sale

Loans held for sale for which we have not elected the fair value option are carried at the lower of aggregate cost, net of deferred fees and deferred origination costs, or fair value. These loans held for sale are valued based on market observable inputs and are therefore classified as Level 2. Fair value adjustments to these loans are recorded in other non-interest income in our consolidated statements of income.

Other Assets

Other assets subject to nonrecurring fair value measurements include equity investments accounted for under the measurement alternative, other repossessed assets and long-lived assets held for sale. The assets held for sale are carried at the lower of the carrying amount or fair value less costs to sell. The fair value is determined based on the appraisal value, listing price of the property or collateral provided by independent appraisers, and is adjusted for the estimated costs to sell. Due to the use of significant unobservable inputs, these assets are classified as Level 3 under the fair value hierarchy. Fair value adjustments for these assets are recorded in other non-interest expense in the consolidated statements of income.

The following table presents the carrying value of the assets measured at fair value on a nonrecurring basis and still held as of December 31, 2022 and 2021, and for which a nonrecurring fair value measurement was recorded during the year then ended.

Table 16.4: Nonrecurring Fair Value Measurements

<i>(Dollars in millions)</i>	December 31, 2022		
	Estimated		
	Fair Value Hierarchy		
	Level 2	Level 3	Total
Loans held for investment	\$ 0	\$ 284	\$ 284
Loans held for sale	11	0	11
Other assets ⁽¹⁾	0	220	220
Total	\$ 11	\$ 504	\$ 515

<i>(Dollars in millions)</i>	December 31, 2021		
	Estimated		
	Fair Value Hierarchy		
	Level 2	Level 3	Total
Loans held for investment	\$ 0	\$ 194	\$ 194
Loans held for sale	118	0	118
Other assets ⁽¹⁾	0	325	325
Total	\$ 118	\$ 519	\$ 637

⁽¹⁾ As of December 31, 2022, other assets included investments accounted for under measurement alternative of \$4 million, cost method investments of \$3 million, repossessed assets of \$55 million and long-lived assets held for sale and right-of-use assets totaling \$158 million. As of December 31, 2021, other assets included equity method investments of \$50 million, investments accounted for under measurement alternative of \$29 million, repossessed assets of \$40 million and long-lived assets held for sale and right-of-use assets totaling \$206 million.

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In the above table, loans held for investment are generally valued based in part on the estimated fair value of the underlying collateral and the non-recoverable rate, which is considered to be a significant unobservable input. The non-recoverable rate ranged from 0% to 43%, with a weighted average of 20%, and from 0% to 100%, with a weighted average of 13%, as of December 31, 2022 and 2021, respectively. The weighted average non-recoverable rate is calculated based on the estimated market value of the underlying collateral. The significant unobservable inputs and related quantitative information related to fair value of the other assets are not meaningful to disclose as they vary significantly across properties and collateral.

The following table presents total nonrecurring fair value measurements for the period, included in earnings, attributable to the change in fair value relating to assets that are still held at December 31, 2022 and 2021.

Table 16.5: Nonrecurring Fair Value Measurements Included in Earnings

<i>(Dollars in millions)</i>	Total Gains (Losses)	
	Year Ended December 31,	
	2022	2021
Loans held for investment	\$ 30	\$ 2
Other assets ⁽¹⁾	(38)	(72)
Total	\$ (8)	\$ (70)

⁽¹⁾ Other assets include fair value adjustments related to repossessed assets, long-lived assets held for sale and right-of-use assets, and equity investments accounted for under the measurement alternative.

Fair Value of Financial Instruments

The following table presents the carrying value and estimated fair value, including the level within the fair value hierarchy, of our financial instruments that are not measured at fair value on a recurring basis on our consolidated balance sheets as of December 31, 2022 and 2021.

Table 16.6: Fair Value of Financial Instruments

<i>(Dollars in millions)</i>	December 31, 2022				
	Carrying Value	Estimated Fair Value	Estimated Fair Value Hierarchy		
			Level 1	Level 2	Level 3
Financial assets:					
Cash and cash equivalents	\$ 30,856	\$ 30,856	\$ 5,193	\$ 25,663	\$ 0
Restricted cash for securitization investors	400	400	400	0	0
Net loans held for investment	299,091	302,920	0	0	302,920
Loans held for sale	11	11	0	11	0
Interest receivable	2,104	2,104	0	2,104	0
Other investments ⁽¹⁾	1,326	1,326	0	1,326	0
Financial liabilities:					
Deposits with defined maturities	45,858	45,531	0	45,531	0
Securitized debt obligations	16,973	16,918	0	16,918	0
Senior and subordinated notes	30,826	30,744	0	30,744	0
Federal funds purchased and securities loaned or sold under agreements to repurchase	883	883	0	883	0
Interest payable	527	527	0	527	0

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December 31, 2021

<i>(Dollars in millions)</i>	December 31, 2021				
	Carrying Value	Estimated Fair Value	Estimated Fair Value Hierarchy		
			Level 1	Level 2	Level 3
Financial assets:					
Cash and cash equivalents	\$ 21,746	\$ 21,746	\$ 4,164	\$ 17,582	\$ 0
Restricted cash for securitization investors	308	308	308	0	0
Net loans held for investment	265,910	270,508	0	0	270,508
Loans held for sale	4,862	5,091	0	5,091	0
Interest receivable	1,460	1,460	0	1,460	0
Other investments ⁽¹⁾	1,344	1,344	0	1,344	0
Financial liabilities:					
Deposits with defined maturities	17,923	18,062	0	18,062	0
Securitized debt obligations	14,994	15,122	0	15,122	0
Senior and subordinated notes	27,219	27,842	0	27,842	0
Federal funds purchased and securities loaned or sold under agreements to repurchase	820	820	0	820	0
Interest payable	281	281	0	281	0

⁽¹⁾ Other investments include FHLB and Federal Reserve stock. These investments are included in other assets on our consolidated balance sheets.

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NOTE 17—BUSINESS SEGMENTS AND REVENUE FROM CONTRACTS WITH CUSTOMERS

Our principal operations are organized into three major business segments, which are defined primarily based on the products and services provided or the types of customers served: Credit Card, Consumer Banking and Commercial Banking. The operations of acquired businesses have been integrated into or managed as a part of our existing business segments. Certain activities that are not part of a segment, such as management of our corporate investment portfolio, asset/liability management by our centralized Corporate Treasury group and residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments, are included in the Other category.

- *Credit Card*: Consists of our domestic consumer and small business card lending, and international card businesses in the United Kingdom and Canada.
- *Consumer Banking*: Consists of our deposit gathering and lending activities for consumers and small businesses, and national auto lending.
- *Commercial Banking*: Consists of our lending, deposit gathering, capital markets and treasury management services to commercial real estate and commercial and industrial customers. Our customers typically include companies with annual revenues between \$20 million and \$2 billion.
- *Other category*: Includes the residual impact of the allocation of our centralized Corporate Treasury group activities, such as management of our corporate investment portfolio, asset/liability management and oversight of our funds transfer pricing process, to our business segments. Accordingly, net gains and losses on our investment securities portfolio and certain trading activities are included in the Other category. Other category also includes foreign exchange-rate fluctuations on foreign currency-denominated transactions; unallocated corporate expenses that do not directly support the operations of the business segments or for which the business segments are not considered financially accountable in evaluating their performance, such as certain restructuring charges; certain material items that are non-recurring in nature; offsets related to certain line-item reclassifications; and residual tax expense or benefit to arrive at the consolidated effective tax rate that is not assessed to our primary business segments.

Basis of Presentation

We report the results of each of our business segments on a continuing operations basis. The results of our individual businesses reflect the manner in which management evaluates performance and makes decisions about funding our operations and allocating resources.

Business Segment Reporting Methodology

The results of our business segments are intended to present each segment as if it were a stand-alone business. Our internal management and reporting process used to derive our segment results employs various allocation methodologies, including funds transfer pricing, to assign certain balance sheet assets, deposits and other liabilities and their related revenue and expenses directly or indirectly attributable to each business segment. Our funds transfer pricing process managed by our centralized Corporate Treasury group provides a funds credit for sources of funds, such as deposits generated by our Consumer Banking and Commercial Banking businesses, and a charge for the use of funds by each segment. The allocation is unique to each business segment and acquired business and is based on the composition of assets and liabilities. The funds transfer pricing process considers the interest rate and liquidity risk characteristics of assets and liabilities and off-balance sheet products. Periodically the methodology and assumptions utilized in the funds transfer pricing process are adjusted to reflect economic conditions and other factors, which may impact the allocation of net interest income to the business segments. Due to the integrated nature of our business segments, estimates and judgments have been made in allocating certain revenue and expense items. Transactions between segments are based on specific criteria or approximate market rate. We regularly assess the assumptions, methodologies and reporting classifications used for segment reporting, which may result in the implementation of refinements or changes in future periods.

The following is additional information on the principles and methodologies used in preparing our business segment results.

- *Net interest income*: Interest income from loans held for investment and interest expense from deposits and other interest-bearing liabilities are reflected within each applicable business segment. Because funding and asset/liability

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management are managed centrally by our Corporate Treasury group, net interest income for our business segments also includes the results of a funds transfer pricing process that is intended to allocate a cost of funds used or credit for funds provided to all business segment assets and liabilities, respectively, using a matched funding concept. The taxable-equivalent benefit of tax-exempt products is also allocated to each business unit with a corresponding increase in income tax expense.

- *Non-interest income:* Non-interest fees and other revenue associated with loans or customers managed by each business segment and other direct revenues are accounted for within each business segment.
- *Provision for credit losses:* The provision for credit losses is directly attributable to the business segment in accordance with the loans each business segment manages.
- *Non-interest expense:* Non-interest expenses directly managed and incurred by a business segment are accounted for within each business segment. We allocate certain non-interest expenses indirectly incurred by business segments, such as corporate support functions, to each business segment based on various factors, including the actual cost of the services from the service providers, the utilization of the services, the number of employees or other relevant factors.
- *Goodwill and other intangible assets:* Goodwill and other intangible assets are assigned to one or more segments at acquisition. Intangible amortization is included in the results of the applicable segment.
- *Income taxes:* Income taxes are assessed for each business segment based on a standard tax rate with the residual tax expense or benefit to arrive at the consolidated effective tax rate included in the Other category.
- *Loans held for investment:* Loans are reported within each business segment based on product or customer type served by that business segment.
- *Deposits:* Deposits are reported within each business segment based on product or customer type served by that business segment.

Segment Results and Reconciliation

We may periodically change our business segments or reclassify business segment results based on modifications to our management reporting methodologies or changes in organizational alignment. The following table presents our business segment results for the years ended December 31, 2022, 2021 and 2020, selected balance sheet data as of December 31, 2022 and 2021, and a reconciliation of our total business segment results to our reported consolidated income from continuing operations, loans held for investment and deposits.

Table 17.1: Segment Results and Reconciliation

<i>(Dollars in millions)</i>	Year Ended December 31, 2022				
	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾	Other ⁽¹⁾	Consolidated Total
Net interest income (loss)	\$ 16,584	\$ 8,965	\$ 2,461	\$ (896)	\$ 27,114
Non-interest income (loss)	5,771	469	1,129	(233)	7,136
Total net revenue (loss) ⁽²⁾	22,355	9,434	3,590	(1,129)	34,250
Provision (benefit) for credit losses	4,265	1,173	415	(6)	5,847
Non-interest expense	11,627	5,312	2,070	154	19,163
Income (loss) from continuing operations before income taxes	6,463	2,949	1,105	(1,277)	9,240
Income tax provision (benefit)	1,536	699	262	(617)	1,880
Income (loss) from continuing operations, net of tax	\$ 4,927	\$ 2,250	\$ 843	\$ (660)	\$ 7,360
Loans held for investment	\$ 137,730	\$ 79,925	\$ 94,676	\$ 0	\$ 312,331
Deposits	0	270,592	40,808	21,592	332,992

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Year Ended December 31, 2021

<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking⁽¹⁾	Other⁽¹⁾	Consolidated Total
Net interest income (loss)	\$ 14,074	\$ 8,448	\$ 2,153	\$ (504)	\$ 24,171
Non-interest income (loss)	4,806	554	1,148	(244)	6,264
Total net revenue (loss) ⁽²⁾	18,880	9,002	3,301	(748)	30,435
Benefit for credit losses	(902)	(521)	(519)	(2)	(1,944)
Non-interest expense	9,621	4,711	1,815	423	16,570
Income (loss) from continuing operations before income taxes	10,161	4,812	2,005	(1,169)	15,809
Income tax provision (benefit)	2,403	1,136	473	(597)	3,415
Income (loss) from continuing operations, net of tax	<u>\$ 7,758</u>	<u>\$ 3,676</u>	<u>\$ 1,532</u>	<u>\$ (572)</u>	<u>\$ 12,394</u>
Loans held for investment	\$ 114,772	\$ 77,646	\$ 84,922	\$ 0	\$ 277,340
Deposits	0	256,407	44,809	9,764	310,980

Year Ended December 31, 2020

<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking⁽¹⁾	Other⁽¹⁾	Consolidated Total
Net interest income (loss)	\$ 13,776	\$ 7,238	\$ 2,048	\$ (149)	\$ 22,913
Non-interest income	3,823	466	923	398	5,610
Total net revenue ⁽²⁾	17,599	7,704	2,971	249	28,523
Provision for credit losses	7,327	1,753	1,181	3	10,264
Non-interest expense	8,491	4,159	1,706	700	15,056
Income (loss) from continuing operations before income taxes	1,781	1,792	84	(454)	3,203
Income tax provision (benefit)	420	425	19	(378)	486
Income (loss) from continuing operations, net of tax	<u>\$ 1,361</u>	<u>\$ 1,367</u>	<u>\$ 65</u>	<u>\$ (76)</u>	<u>\$ 2,717</u>
Loans held for investment	\$ 106,956	\$ 68,888	\$ 75,780	\$ 0	\$ 251,624
Deposits	0	249,815	39,590	16,037	305,442

⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reductions to the Other category.

⁽²⁾ Total net revenue was reduced by \$946 million, \$629 million and \$1.1 billion for the years ended December 31, 2022, 2021 and 2020, respectively, for credit card finance charges and fees charged off as uncollectible.

Revenue from Contracts with Customers

The majority of our revenue from contracts with customers consists of interchange fees, service charges and other customer-related fees, and other contract revenue. Interchange fees are primarily from our Credit Card business and are recognized upon settlement with the interchange networks, net of rewards earned by customers. Service charges and other customer-related fees within our Consumer Banking business are primarily related to fees earned on consumer deposit accounts for account maintenance and various transaction-based services such as automated teller machine (“ATM”) usage. Service charges and other customer-related fees within our Commercial Banking business are mostly related to fees earned on treasury management and capital markets services. Other contract revenue in our Credit Card business consists primarily of revenue from our partnership arrangements. Other contract revenue in our Consumer Banking business consists primarily of revenue earned on certain marketing and promotional events from our auto dealers. Revenue from contracts with customers is included in non-interest income in our consolidated statements of income.

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The following table presents revenue from contracts with customers and a reconciliation to non-interest income by business segment for the years ended December 31, 2022, 2021 and 2020.

Table 17.2: Revenue from Contracts with Customers and Reconciliation to Segment Results

<i>(Dollars in millions)</i>	Year Ended December 31, 2022				
	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾	Other ⁽¹⁾	Consolidated Total
Contract revenue:					
Interchange fees, net ⁽²⁾	\$ 4,178	\$ 320	\$ 109	\$ (1)	\$ 4,606
Service charges and other customer-related fees	0	91	236	0	327
Other	395	74	16	(1)	484
Total contract revenue (loss)	4,573	485	361	(2)	5,417
Revenue (reduction) from other sources	1,198	(16)	768	(231)	1,719
Total non-interest income (loss)	\$ 5,771	\$ 469	\$ 1,129	\$ (233)	\$ 7,136
	Year Ended December 31, 2021				
<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾	Other ⁽¹⁾	Consolidated Total
Contract revenue:					
Interchange fees, net ⁽²⁾	\$ 3,497	\$ 267	\$ 96	\$ 0	\$ 3,860
Service charges and other customer-related fees	0	171	287	(1)	457
Other	383	75	5	0	463
Total contract revenue (loss)	3,880	513	388	(1)	4,780
Revenue (reduction) from other sources	926	41	760	(243)	1,484
Total non-interest income (loss)	\$ 4,806	\$ 554	\$ 1,148	\$ (244)	\$ 6,264
	Year Ended December 31, 2020				
<i>(Dollars in millions)</i>	Credit Card	Consumer Banking	Commercial Banking ⁽¹⁾	Other ⁽¹⁾	Consolidated Total
Contract revenue:					
Interchange fees, net ⁽²⁾	\$ 2,747	\$ 209	\$ 63	\$ (2)	\$ 3,017
Service charges and other customer-related fees	0	188	175	(1)	362
Other	315	39	4	0	358
Total contract revenue (loss)	3,062	436	242	(3)	3,737
Revenue from other sources	761	30	681	401	1,873
Total non-interest income	\$ 3,823	\$ 466	\$ 923	\$ 398	\$ 5,610

⁽¹⁾ Some of our commercial investments generate tax-exempt income, tax credits or other tax benefits. Accordingly, we present our Commercial Banking revenue and yields on a taxable-equivalent basis, calculated using the federal statutory tax rate of 21% and state taxes where applicable, with offsetting reductions to the Other category.

⁽²⁾ Interchange fees are presented net of customer reward expenses of \$7.6 billion, \$6.4 billion and \$4.9 billion for the years ended December 31, 2022, 2021 and 2020, respectively.

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NOTE 18—COMMITMENTS, CONTINGENCIES, GUARANTEES AND OTHERS

Commitments to Lend

Our unfunded lending commitments primarily consist of credit card lines, loan commitments to customers of both our Commercial Banking and Consumer Banking businesses, as well as standby and commercial letters of credit. These commitments, other than credit card lines and certain other unconditionally cancellable lines of credit, are legally binding conditional agreements that have fixed expirations or termination dates and specified interest rates and purposes. The contractual amount of these commitments represents the maximum possible credit risk to us should the counterparty draw upon the commitment. We generally manage the potential risk of unfunded lending commitments by limiting the total amount of arrangements, monitoring the size and maturity structure of these portfolios and applying the same credit standards for all of our credit activities.

For unused credit card lines, we have not experienced and do not anticipate that all of our customers will access their entire available line at any given point in time. Commitments to extend credit other than credit card lines generally require customers to maintain certain credit standards. Collateral requirements and loan-to-value (“LTV”) ratios are the same as those for funded transactions and are established based on management’s credit assessment of the customer. These commitments may expire without being drawn upon; therefore, the total commitment amount does not necessarily represent future funding requirements.

We also issue letters of credit, such as financial standby, performance standby and commercial letters of credit, to meet the financing needs of our customers. Standby letters of credit are conditional commitments issued by us to guarantee the performance of a customer to a third party in a borrowing arrangement. Commercial letters of credit are short-term commitments issued primarily to facilitate trade finance activities for customers and are generally collateralized by the goods being shipped to the customer. These collateral requirements are similar to those for funded transactions and are established based on management’s credit assessment of the customer. Management conducts regular reviews of all outstanding letters of credit and the results of these reviews are considered in assessing the adequacy of reserves for unfunded lending commitments.

The following table presents the contractual amount and carrying value of our unfunded lending commitments as of December 31, 2022 and 2021. The carrying value represents our reserve and deferred revenue on legally binding commitments.

Table 18.1: Unfunded Lending Commitments

	Contractual Amount		Carrying Value	
	December 31, 2022	December 31, 2021	December 31, 2022	December 31, 2021
<i>(Dollars in millions)</i>				
Credit card lines	\$ 359,507	\$ 368,508	N/A	N/A
Other loan commitments ⁽¹⁾	48,405	44,572	\$ 176	\$ 125
Standby letters of credit and commercial letters of credit ⁽²⁾	1,402	1,419	28	24
Total unfunded lending commitments	<u>\$ 409,314</u>	<u>\$ 414,499</u>	<u>\$ 204</u>	<u>\$ 149</u>

⁽¹⁾ Includes \$4.4 billion and \$3.9 billion of advised lines of credit as of December 31, 2022 and 2021, respectively.

⁽²⁾ These financial guarantees have expiration dates that range from 2022 to 2027 as of December 31, 2022.

Loss Sharing Agreements

Within our Commercial Banking business, we originate multifamily commercial real estate loans with the intent to sell them to the GSEs. We enter into loss sharing agreements with the GSEs upon the sale of these originated loans. Beginning January 1, 2020, we elected the fair value option on new loss sharing agreements entered into. Unrealized gains and losses are recorded in other non-interest income in our consolidated statements of income. For those loss sharing agreements entered into as of and prior to December 31, 2019, we amortize the liability recorded at inception into non-interest income as we are released from risk of having to make a payment and record our estimate of expected credit losses each period in provision for credit losses in our consolidated statements of income. The liability recognized on our consolidated balance sheets for these loss sharing agreements was \$82 million and \$90 million as of December 31, 2022 and 2021, respectively. See “Note 4—Allowance for Credit Losses and Reserve for Unfunded Lending Commitments” for more information related to our credit card partnership loss sharing arrangements.

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Litigation

In accordance with the current accounting standards for loss contingencies, we establish reserves for litigation-related matters that arise from the ordinary course of our business activities when it is probable that a loss associated with a claim or proceeding has been incurred and the amount of the loss can be reasonably estimated. None of the amounts we currently have recorded individually or in the aggregate are considered to be material to our financial condition. Litigation claims and proceedings of all types are subject to many uncertain factors that generally cannot be predicted with assurance. Below we provide a description of potentially material legal proceedings and claims.

For some of the matters disclosed below, we are able to estimate reasonably possible losses above existing reserves, and for other disclosed matters, such an estimate is not possible at this time. For those matters below where an estimate is possible, management currently estimates the reasonably possible future losses beyond our reserves as of December 31, 2022 are approximately \$200 million. Our reserve and reasonably possible loss estimates involve considerable judgment and reflect that there is still significant uncertainty regarding numerous factors that may impact the ultimate loss levels. Notwithstanding, our attempt to estimate a reasonably possible range of loss beyond our current accrual levels for some litigation matters based on current information, it is possible that actual future losses will exceed both the current accrual level and the range of reasonably possible losses disclosed here. Given the inherent uncertainties involved in these matters, especially those involving governmental agencies, and the very large or indeterminate damages sought in some of these matters, there is significant uncertainty as to the ultimate liability we may incur from these litigation matters and an adverse outcome in one or more of these matters could be material to our results of operations or cash flows for any particular reporting period.

Interchange

In 2005, a putative class of retail merchants filed antitrust lawsuits against MasterCard and Visa and several issuing banks, including Capital One, seeking both injunctive relief and monetary damages for an alleged conspiracy by defendants to fix the level of interchange fees. Other merchants have asserted similar claims in separate lawsuits, and while these separate cases did not name any issuing banks, Visa, MasterCard and issuers, including Capital One, have entered settlement and judgment sharing agreements allocating the liabilities of any judgment or settlement arising from all interchange-related cases.

The lawsuits were consolidated before the U.S. District Court for the Eastern District of New York for certain purposes and were settled in 2012. The class settlement, however, was invalidated by the United States Court of Appeals for the Second Circuit in June 2016, and the suit was bifurcated into separate class actions seeking injunctive and monetary relief, respectively. In addition, numerous merchant groups opted out of the 2012 settlement and have pursued their own claims. The claims by the injunctive relief class have not been resolved, but the settlement of \$5.5 billion for the monetary damages class received final approval from the trial court, and has been appealed to the U.S. Court of Appeals for the Second Circuit. Visa and MasterCard have also settled a number of the opt-out cases, which required non-material payments from issuing banks, including Capital One. Visa created a litigation escrow account following its initial public offering of stock in 2008 that funds settlements for its member banks, and any settlements related to MasterCard-allocated losses have either already been paid or are reflected in our reserves.

Cybersecurity Incident

On July 29, 2019, we announced that on March 22 and 23, 2019 an outside individual gained unauthorized access to our systems. This individual obtained certain types of personal information relating to people who had applied for our credit card products and to our credit card customers (the “Cybersecurity Incident”). As a result of the Cybersecurity Incident, we are subject to numerous legal proceedings and other inquiries and could be the subject of additional proceedings and inquiries in the future.

Consumer class actions. We were named as a defendant in approximately 75 putative consumer class action cases (primarily in U.S. courts with cases also in Canadian courts) alleging harm from the Cybersecurity Incident and seeking various remedies, including monetary and injunctive relief. The lawsuits allege breach of contract, negligence, violations of various privacy laws and a variety of other legal causes of action. The U.S. consumer class actions were consolidated for pretrial proceedings before a multi-district litigation (“MDL”) panel in the U.S. District Court for the Eastern District of Virginia, Alexandria Division. In the fourth quarter of 2021, the parties agreed to a settlement of the U.S. consumer class action cases for an amount within existing reserves. The MDL court approved the settlement in September 2022, and the approval became final in the fourth quarter of 2022. The balance of the settlement was paid after the court approval became final in the fourth quarter of 2022, and the U.S. consumer class action is now concluded. Capital One maintained cyber insurance that covered this settlement. In

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Canada, a trial court in British Columbia preliminarily certified a class of all impacted Canadian consumers except those in Quebec in the second quarter of 2022, which would allow the case to proceed with discovery on a classwide basis under Canadian law. The preliminary certification decision has been appealed.

Securities class action. The Company and certain officers were also named as defendants in a putative class action pending in the MDL alleging violations of certain federal securities laws in connection with statements and alleged omissions in securities filings relating to our information security standards and practices. The complaint sought certification of a class of all persons who purchased or otherwise acquired Capital One securities from July 23, 2015 to July 29, 2019, as well as unspecified monetary damages, costs and other relief. The MDL court granted the Company's motion to dismiss in September 2022, and the dismissal became final in the fourth quarter of 2022. The securities class action is now concluded.

Governmental inquiries. We have received inquiries and requests for information relating to the Cybersecurity Incident from Congress, federal regulators, relevant Canadian regulators, the Department of Justice, and the offices of approximately fourteen state Attorneys General. We have cooperated with these offices and responded to their inquiries.

In August 2020, we entered into consent orders with the Federal Reserve and OCC resulting from regulatory reviews of the Cybersecurity Incident and relating to ongoing enhancements of our cybersecurity and operational risk management processes. We paid an \$80 million penalty to the U.S. Treasury as part of the OCC agreement. The Federal Reserve agreement did not contain a monetary penalty. The OCC lifted its consent order on August 31, 2022.

U.K. PPI Litigation

In the U.K., we previously sold payment protection insurance ("PPI"). For several years leading up to the claims submission deadline of August 29, 2019 (as set by the U.K. Financial Conduct Authority), we received customer complaints and regulatory claims relating to PPI. COEP has materially resolved the PPI complaints and regulatory claims received prior to the deadline. Some of the claimants in the U.K. PPI regulatory claims process have subsequently initiated legal proceedings, seeking additional redress. We are responding to these proceedings as we receive them.

Other Pending and Threatened Litigation

In addition, we are commonly subject to various pending and threatened legal actions relating to the conduct of our normal business activities. In the opinion of management, the ultimate aggregate liability, if any, arising out of all such other pending or threatened legal actions is not expected to be material to our consolidated financial position or our results of operations.

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NOTE 19—CAPITAL ONE FINANCIAL CORPORATION (PARENT COMPANY ONLY)

Financial Information

The following parent company only financial statements are prepared in accordance with Regulation S-X of the U.S. Securities and Exchange Commission (“SEC”).

Table 19.1: Parent Company Statements of Income

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Interest income	\$ 595	\$ 151	\$ 186
Interest expense	969	392	510
Benefit for Credit Losses	(1)	(1)	0
Dividends from subsidiaries	4,352	13,970	3,003
Non-interest income (loss)	(15)	(26)	(127)
Non-interest expense	35	36	33
Income before income taxes and equity in undistributed earnings of subsidiaries	3,929	13,668	2,519
Income tax benefit	(181)	(82)	(93)
Equity in undistributed earnings of subsidiaries	3,250	(1,360)	102
Net income	7,360	12,390	2,714
Other comprehensive income (loss), net of tax	(10,290)	(3,120)	2,346
Comprehensive income	\$ (2,930)	\$ 9,270	\$ 5,060

Table 19.2: Parent Company Balance Sheets

<i>(Dollars in millions)</i>	December 31, 2022	December 31, 2021
Assets:		
Cash and cash equivalents	\$ 22,006	\$ 16,910
Investments in subsidiaries	50,523	57,600
Loans to subsidiaries	6,710	7,849
Securities available for sale	395	513
Other assets	2,281	1,330
Total assets	\$ 81,915	\$ 84,202
Liabilities:		
Senior and subordinated notes	\$ 28,970	\$ 23,017
Accrued expenses and other liabilities	363	156
Total liabilities	29,333	23,173
Total stockholders' equity	52,582	61,029
Total liabilities and stockholders' equity	\$ 81,915	\$ 84,202

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Table 19.3: Parent Company Statements of Cash Flows

<i>(Dollars in millions)</i>	Year Ended December 31,		
	2022	2021	2020
Operating activities:			
Net income	\$ 7,360	\$ 12,390	\$ 2,714
Adjustments to reconcile net income to net cash from operating activities:			
Equity in undistributed earnings of subsidiaries	(3,250)	1,360	(102)
Other operating activities	(2,429)	(4,523)	1,217
Net cash from operating activities	1,681	9,227	3,829
Investing activities:			
Changes in investments in subsidiaries	0	3,521	(217)
Proceeds from paydowns and maturities of securities available for sale	96	141	117
Purchases of securities available for sale	(10)	—	—
Changes in loans to subsidiaries	1,139	(1,925)	(2,019)
Net cash from investing activities	1,225	1,737	(2,119)
Financing activities:			
Borrowings:			
Issuance of senior and subordinated notes	9,271	4,487	1,991
Maturities and paydowns of senior and subordinated notes	(1,250)	(2,750)	(2,900)
Common stock:			
Net proceeds from issuances	276	253	241
Dividends paid	(950)	(1,148)	(460)
Preferred stock:			
Net proceeds from issuances	0	2,052	1,330
Dividends paid	(228)	(274)	(280)
Redemptions	0	(2,100)	(1,375)
Purchases of treasury stock	(4,948)	(7,605)	(393)
Proceeds from share-based payment activities	19	55	62
Net cash from financing activities	2,190	(7,030)	(1,784)
Changes in cash and cash equivalents	5,096	3,934	(74)
Cash and cash equivalents, beginning of the period	16,910	12,976	13,050
Cash and cash equivalents, end of the period	\$ 22,006	\$ 16,910	\$ 12,976

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NOTE 20—RELATED PARTY TRANSACTIONS

In the ordinary course of business, we may have loans issued to our executive officers, directors and principal stockholders. Pursuant to our policy, such loans are issued on the same terms as those prevailing at the time for comparable loans to unrelated persons and do not involve more than the normal risk of collectability.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Overview

We are required under applicable laws and regulations to maintain controls and procedures, which include disclosure controls and procedures as well as internal control over financial reporting, as further described below.

(a) Disclosure Controls and Procedures

Disclosure controls and procedures refer to controls and other procedures designed to provide reasonable assurance that information required to be disclosed in our financial reports is recorded, processed, summarized and reported within the time periods specified by SEC rules and forms and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding our required disclosure. In designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and we must apply judgment in evaluating and implementing possible controls and procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15 of the Securities Exchange Act of 1934 (“Exchange Act”), our management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) as of December 31, 2022, the end of the period covered by this Annual Report on Form 10-K. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2022, at a reasonable level of assurance, in recording, processing, summarizing and reporting information required to be disclosed within the time periods specified by the SEC rules and forms.

(b) Changes in Internal Control Over Financial Reporting

We regularly review our disclosure controls and procedures and make changes intended to ensure the quality of our financial reporting. There have been no changes in internal control over financial reporting that occurred in the fourth quarter of 2022 which have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

(c) Management’s Report on Internal Control Over Financial Reporting

Management’s Report on Internal Control Over Financial Reporting is included in “Part II—Item 8. Financial Statements and Supplementary Data” and is incorporated herein by reference. The Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting also is included in “Part II—Item 8. Financial Statements and Supplementary Data” and incorporated herein by reference.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by Item 10 will be included in our Proxy Statement for the 2023 Annual Stockholder Meeting (“Proxy Statement”) under the heading “Election of Directors,” “Executive Officers,” “Process for Stockholder Recommendations of Director Candidates,” “Board Committees,” and “Delinquent Section 16(a) Reports,” and is incorporated herein by reference. The Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days of the end of our 2022 fiscal year. In addition, please see “Part I—Item 1. Business—Overview.”

Item 11. Executive Compensation

The information required by Item 11 will be included in the Proxy Statement under the headings “Director Compensation,” “Compensation Discussion and Analysis,” “Named Executive Officer Compensation” and “Compensation Committee Report,” and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by Item 12 will be included in the Proxy Statement under the headings “Security Ownership” and “Equity Compensation Plans,” and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by Item 13 will be included in the Proxy Statement under the headings “Related Person Transactions” and “Director Independence,” and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required by Item 14 will be included in the Proxy Statement under the heading “Ratification of Selection of Our Independent Registered Public Accounting Firm,” and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial Statement Schedules

The following documents are filed as part of this Annual Report in Part II, Item 8 and are incorporated herein by reference.

(1) Management's Report on Internal Control Over Financial Reporting

Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting

Report of Independent Registered Public Accounting Firm on the Consolidated Financial Statements

Consolidated Financial Statements:

Consolidated Statements of Income for the years ended December 31, 2022, 2021 and 2020

Consolidated Statements of Comprehensive Income for the years ended December 31, 2022, 2021 and 2020

Consolidated Balance Sheets as of December 31, 2022 and 2021

Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2022, 2021 and 2020

Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020

Notes to Consolidated Financial Statements

(2) Schedules

None.

(b) Exhibits

An index to exhibits has been filed as part of this Report and is incorporated herein by reference.

Item 16. Form 10-K Summary

Not applicable.

ANNUAL REPORT ON FORM 10-K
DATED DECEMBER 31, 2022
Commission File No. 001-13300

The following exhibits are incorporated by reference or filed herewith. References to (i) the “2002 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2002, filed on March 17, 2003; (ii) the “2003 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2003, filed on March 5, 2004; (iii) the “2011 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2011, filed on February 28, 2012; (iv) the “2012 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2012, filed on February 28, 2013; (v) the “2013 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2013, filed on February 27, 2014; (vi) the “2014 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2014, filed on February 24, 2015; (vii) the “2015 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2015, filed on February 25, 2016; (viii) the “2016 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2016, filed on February 23, 2017; (ix) the “2018 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, filed on February 20, 2019; (x) the “2019 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2019, filed on February 20, 2020; (xi) the “2020 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2020, filed on February 25, 2021; and (xii) the “2021 Form 10-K” are to the Company’s Annual Report on Form 10-K for the year ended December 31, 2021, filed on February 25, 2022.

Exhibit No.	Description
3.1	Restated Certificate of Incorporation of Capital One Financial Corporation (as restated May 1, 2020) (incorporated by reference to Exhibit 3.2 of the Current Report on Form 8-K, filed on May 4, 2020).
3.2	Amended and Restated Bylaws of Capital One Financial Corporation, dated September 23, 2021 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on September 29, 2021).
3.3.1	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series I, dated September 10, 2019 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on September 11, 2019).
3.3.2	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series J, dated January 30, 2020 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on January 31, 2020).
3.3.3	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series K, dated September 16, 2020 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on September 17, 2020).
3.3.4	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series L, dated May 3, 2021 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on May 4, 2021).
3.3.5	Certificate of Designations of Fixed Rate Reset Non-Cumulative Perpetual Preferred Stock, Series M, dated June 9, 2021 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on June 10, 2021).
3.3.6	Certificate of Designations of Fixed Rate Non-Cumulative Perpetual Preferred Stock, Series N, dated July 28, 2021 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K, filed on July 29, 2021).
4.1.1	Specimen certificate representing the common stock of Capital One Financial Corporation (incorporated by reference to Exhibit 4.1 of the 2003 Form 10-K).
4.1.2	Warrant Agreement, dated December 3, 2009, between Capital One Financial Corporation and Computershare Trust Company, N.A. (incorporated by reference to the Exhibit 4.1 of the Form 8-A, filed on December 4, 2009).
4.1.3	Deposit Agreement, dated September 11, 2019, by and among Capital One Financial Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time (incorporated by reference to Exhibit 4.1 of the Current Report on Form 8-K, filed on September 11, 2019).
4.1.4	Deposit Agreement, dated January 31, 2020, by and among Capital One Financial Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time (incorporated by reference to Exhibit 4.1 of the Current Report on Form 8-K, filed on January 31, 2020).
4.1.5	Deposit Agreement, dated September 17, 2020, by and among Capital One Financial Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time (incorporated by reference to Exhibit 4.1 of the Current Report on Form 8-K, filed on September 17, 2020).
4.1.6	Deposit Agreement, dated May 4, 2021, by and among Capital One Financial Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time (incorporated by reference to Exhibit 4.1 of the Current Report on Form 8-K, filed on May 4, 2021).
4.1.7	Deposit Agreement, dated July 29, 2021, by and among Capital One Financial Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time (incorporated by reference to Exhibit 4.1 of the Current Report on Form 8-K, filed on July 29, 2021).
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 are not filed. The Company agrees to furnish a copy thereof to the SEC upon request.
4.3*	Description of Securities Registered Under Section 12 of the Exchange Act.

- 10.1+ Sixth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K, filed on May 7, 2021).
- 10.2.1+ Nonstatutory Stock Option Award Agreement, dated January 30, 2014, by and between Capital One Financial Corporation and Richard D. Fairbank under the Second Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.15 of the 2013 Form 10-K).
- 10.2.2+ Nonstatutory Stock Option Award Agreement, dated January 29, 2015, by and between Capital One Financial Corporation and Richard D. Fairbank under the Third Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.14 of the 2014 Form 10-K).
- 10.2.3+ Nonstatutory Stock Option Award Agreement, dated February 4, 2016, by and between Capital One Financial Corporation and Richard D. Fairbank under the Third Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.17 of the 2015 Form 10-K).
- 10.2.4+ Form of Nonstatutory Stock Option Award Agreement granted to our executive officers under the Third Amended and Restated 2004 Stock Incentive Plan on February 4, 2016 (incorporated by reference to Exhibit 10.2.17 of the 2015 Form 10-K).
- 10.2.5+ Nonstatutory Stock Option Award Agreement, dated February 2, 2017, by and between Capital One Financial Corporation and Richard D. Fairbank under the Third Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.19 of the 2016 Form 10-K).
- 10.2.6+ Form of Nonstatutory Stock Option Award Agreement granted to our executive officers under the Third Amended and Restated 2004 Stock Incentive Plan on February 2, 2017 (incorporated by reference to Exhibit 10.2.19 of the 2016 Form 10-K).
- 10.2.7+ Performance Unit Award Agreement, dated January 30, 2020, by and between Capital One Financial Corporation and Richard D. Fairbank under the Fifth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.23 of the 2019 Form 10-K).
- 10.2.8+ Form of Performance Unit Award Agreement granted to our executive officers under the Fifth Amended and Restated 2004 Stock Incentive Plan on January 30, 2020 (incorporated by reference to Exhibit 10.2.23 of the 2019 Form 10-K).
- 10.2.9+ Form of Restricted Stock Unit Award Agreement, dated January 30, 2020, by and between Capital One Financial Corporation and Richard D. Fairbank under the Fifth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.24 of the 2019 Form 10-K).
- 10.2.10+ Form of Restricted Stock Unit Award Agreements granted to our executive officers under the Fifth Amended and Restated 2004 Stock Incentive Plan on January 30, 2020 (incorporated by reference to Exhibit 10.2.24 of the 2019 Form 10-K).
- 10.2.11+ Form of Performance Unit Award Agreement, dated February 4, 2021, by and between Capital One Financial Corporation and Richard D. Fairbank under the Fifth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.25 of the 2020 Form 10-K).
- 10.2.12+ Form of Performance Unit Award Agreements granted to our executive officers under the Fifth Amended and Restated 2004 Stock Incentive Plan on February 4, 2021 (incorporated by reference to Exhibit 10.2.25 of the 2020 Form 10-K).
- 10.2.13+ Form Restricted Stock Unit Award Agreement, dated February 4, 2021, by and between Capital One Financial Corporation and Richard D. Fairbank under the Fifth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.26 of the 2020 Form 10-K).
- 10.2.14+ Form of Restricted Stock Unit Award Agreements granted to our executive officers under the Fifth Amended and Restated 2004 Stock Incentive Plan on February 4, 2021 (incorporated by reference to Exhibit 10.2.26 of the 2020 Form 10-K).
- 10.2.15+ Form of Total Shareholder Return Performance Unit Award Agreement granted to our Chief Executive Officer under the Fifth Amended and Restated 2004 Stock Incentive Plan on February 4, 2021 (incorporated by reference to Exhibit 10.2.27 of the 2020 Form 10-K).
- 10.2.16+ Form of Performance Unit Award Agreement, dated February 3, 2022, by and between Capital One Financial Corporation and Richard D. Fairbank under the Sixth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.13 of the 2021 Form 10-K).
- 10.2.17+ Form of Performance Unit Award Agreements granted to our executive officers under the Sixth Amended and Restated 2004 Stock Incentive Plan on February 3, 2022 (incorporated by reference to Exhibit 10.2.13 of the 2021 Form 10-K).
- 10.2.18+ Form of Restricted Stock Unit Award Agreement, dated February 3, 2022, by and between Capital One Financial Corporation and Richard D. Fairbank under the Sixth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2.14 of the 2021 Form 10-K).
- 10.2.19+ Form of Restricted Stock Unit Award Agreements granted to our executive officers under the Sixth Amended and Restated 2004 Stock Incentive Plan on February 3, 2022 (incorporated by reference to Exhibit 10.2.14 of the 2021 Form 10-K).
- 10.2.20+ Form of Total Shareholder Return Performance Unit Award Agreement granted to our Chief Executive Officer under the Sixth Amended and Restated 2004 Stock Incentive Plan on February 3, 2022 (incorporated by reference to Exhibit 10.2.15 of the 2021 Form 10-K).
- 10.2.21*+ Form of Restricted Stock Unit Award Agreement, dated January 26, 2023, by and between Capital One Financial Corporation and Richard D. Fairbank under the Sixth Amended and Restated 2004 Stock Incentive Plan.
- 10.2.22*+ Performance Unit Award Agreement, dated January 26, 2023, by and between Capital One Financial Corporation and Richard D. Fairbank under the Sixth Amended and Restated 2004 Stock Incentive Plan.
- 10.2.23*+ Total Shareholder Return Performance Unit Award Agreement granted to our Chief Executive Officer under the Sixth Amended and Restated 2004 Stock Incentive Plan on January 26, 2023.

- 10.2.24*+ Form of Restricted Stock Unit Award Agreements granted to our executive officers under the Sixth Amended and Restated 2004 Stock Incentive Plan on January 26, 2023
- 10.2.25*+ Form of Performance Unit Award Agreements granted to our executive officers under the Sixth Amended and Restated 2004 Stock Incentive Plan on January 26, 2023
- 10.2.26*+ Restricted Stock Unit Award Agreement, dated January 31, 2022, by and between Capital One Financial Corporation and Neal Blinde under the Sixth Amended and Restated 2004 Stock Incentive Plan.
- 10.2.27*+ Restricted Stock Unit Award Agreement, dated January 31, 2022, by and between Capital One Financial Corporation and Neal Blinde under the Sixth Amended and Restated 2004 Stock Incentive Plan.
- 10.2.28*+ Restricted Stock Unit Award Agreement, dated January 31, 2022, by and between Capital One Financial Corporation and Neal Blinde under the Sixth Amended and Restated 2004 Stock Incentive Plan.
- 10.3.1+ Capital One Financial Corporation 1999 Non-Employee Directors Stock Incentive Plan, as amended (incorporated by reference to Exhibit 10.4 of the 2002 Form 10-K).
- 10.3.2+ Form of 1999 Non-Employee Directors Stock Incentive Plan Deferred Share Units Award Agreement between Capital One Financial Corporation and certain of its Directors (incorporated by reference to Exhibit 10.3 of the Quarterly Report on Form 10-Q for the period ended September 30, 2004).
- 10.3.3+ Form of Restricted Stock Unit Award Agreement granted to our directors under the Second Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.3.4 of the 2011 Form 10-K).
- 10.3.4+ Form of Restricted Stock Unit Award Agreement granted to our directors under the Fourth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q for the period ended June 30, 2018).
- 10.3.5+ Form of Restricted Stock Unit Award Agreement granted to our directors under the Fifth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 of the Quarterly Report on Form 10-Q for the period ended June 30, 2019).
- 10.3.6+ Form of Restricted Stock Unit Award Agreement granted to our directors under the Sixth Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q for the period ended June 30, 2022).
- 10.4.1+ Amended and Restated Capital One Financial Corporation Executive Severance Plan (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q for the period ended September 30, 2015).
- 10.4.2*+ Amended and Restated Capital One Financial Corporation Executive Severance Plan
- 10.4.3*+ Amendment Number One to the Amended and Restated Capital One Financial Corporation Executive Severance Plan
- 10.5+ Capital One Financial Corporation Non-Employee Directors Deferred Compensation Plan (incorporated by reference to Exhibit 10.5 of the 2011 Form 10-K).
- 10.6.1+ Amended and Restated Capital One Financial Corporation Voluntary Non-Qualified Deferred Compensation Plan (incorporated by reference to Exhibit 10.6 of the 2011 Form 10-K).
- 10.6.2+ First Amendment to the Amended and Restated Capital One Financial Corporation Voluntary Non-Qualified Deferred Compensation Plan (incorporated by reference to Exhibit 10.6.2 of the 2012 Form 10-K).
- 10.7.1+ Form of Change of Control Employment Agreement between Capital One Financial Corporation and each of its named executive officers, other than the Chief Executive Officer (incorporated by reference to Exhibit 10.8.2 of the 2011 Form 10-K).
- 10.7.2+ Form of 2011 Change of Control Employment Agreement between Capital One Financial Corporation and certain executive officers (incorporated by reference to Exhibit 10.8.3 of the 2012 Form 10-K).
- 10.7.3+ Change of Control Employment Agreement, dated December 10, 2013, between Capital One Financial Corporation and Richard D. Fairbank (incorporated by reference to Exhibit 10.7.3 of the 2013 Form 10-K).
- 10.8.1+ Form of Non-Competition Agreement between Capital One Financial Corporation and Andrew M. Young and Sanjiv Yajnik (incorporated by reference to Exhibit 10.9 of the 2012 Form 10-K).
- 10.9*+ Notice & Garden Leave Agreement, dated December 13, 2021, between Capital One Financial Corporation and Neal Blinde.
- 21* Subsidiaries of the Company.
- 23* Consent of Ernst & Young LLP.
- 31.1* Certification of Richard D. Fairbank.
- 31.2* Certification of Andrew M. Young.
- 32.1** Certification of Richard D. Fairbank.
- 32.2** Certification of Andrew M. Young.
- 101.INS XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL Document.
- 101.SCH* Inline XBRL Taxonomy Extension Schema Document.
- 101.CAL* Inline XBRL Taxonomy Extension Calculation Linkbase Document.
- 101.DEF* Inline XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB* Inline XBRL Taxonomy Extension Label Linkbase Document.
- 101.PRE* Inline XBRL Taxonomy Extension Presentation Linkbase Document.

104 The cover page of Capital One Financial Corporation's Annual Report on Form 10-K for the year ended December 31, 2022, formatted in Inline XBRL (included within the Exhibit 101 attachments).

+ Represents a management contract or compensatory plan or arrangement.

* Indicates a document being filed with this Form 10-K.

** Indicates a document being furnished with this Form 10-K. Information in this Form 10-K furnished herewith shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section. Such exhibit shall not be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934.

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.

Date: February 24, 2023

CAPITAL ONE FINANCIAL CORPORATION

By: /s/ RICHARD D. FAIRBANK

Richard D. Fairbank

Chair 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 and on the dates indicated.

Signature	Title	Date
<u>/s/ RICHARD D. FAIRBANK</u> Richard D. Fairbank	Chair and Chief Executive Officer (Principal Executive Officer)	February 24, 2023
<u>/s/ ANDREW M. YOUNG</u> Andrew M. Young	Chief Financial Officer (Principal Financial Officer)	February 24, 2023
<u>/s/ TIMOTHY P. GOLDEN</u> Timothy P. Golden	Controller (Principal Accounting Officer)	February 24, 2023
<u>/s/ IME ARCHIBONG</u> Ime Archibong	Director	February 24, 2023
<u>/s/ CHRISTINE DETRICK</u> Christine Detrick	Director	February 24, 2023
<u>/s/ ANN FRITZ HACKETT</u> Ann Fritz Hackett	Director	February 24, 2023
<u>/s/ PETER THOMAS KILLALEA</u> Peter Thomas Killalea	Director	February 24, 2023
<u>/s/ C.P.A.J. (ELI) LEENAARS</u> C.P.A.J. (Eli) Leenaars	Director	February 24, 2023
<u>/s/ FRANÇOIS LOCOH-DONOU</u> François Locoh-Donou	Director	February 24, 2023
<u>/s/ PETER E. RASKIND</u> Peter E. Raskind	Director	February 24, 2023
<u>/s/ EILEEN SERRA</u> Eileen Serra	Director	February 24, 2023
<u>/s/ MAYO A. SHATTUCK III</u> Mayo A. Shattuck III	Director	February 24, 2023
<u>/s/ BRADFORD H. WARNER</u> Bradford H. Warner	Director	February 24, 2023
<u>/s/ CRAIG WILLIAMS</u> Craig Williams	Director	February 24, 2023

Corporate Information

Corporate Office

1680 Capital One Drive, McLean, VA 22102
Tel: (703) 720-1000
www.capitalone.com

Annual Meeting

Thursday, May 4, 2023
10:00 a.m. Eastern Time
Capital One Campus
1680 Capital One Drive, McLean, VA 22102

Principal Investor Contacts

Jeffrey Norris
Senior Vice President, Finance
or
Danielle Dietz
Managing Vice President, Investor Relations
Capital One Financial Corporation
1600 Capital One Drive, McLean, VA 22102
Tel: (703) 720-2455

Common Stock

Listed on New York Stock Exchange®
Stock Symbol COF
Member of S&P 500®

Corporate Registrar/Transfer Agent

Computershare
P.O. Box 43078, Providence, RI 02940-3078
Tel: (888) 985-2057
Outside the U.S., Canada, & Puerto Rico
Tel: (781) 575-2725
Hearing impaired: (800) 952-9245
Email: shareholder@computershare.com
Internet: www.computershare.com

By Overnight Courier to:

Computershare
150 Royall St., Suite 101, Canton, MA 02021

Independent Registered Public Accounting Firm

Ernst & Young LLP

Copies of Form 10-K filed with the Securities and Exchange Commission are available without charge at www.capitalone.com. The most recent certifications by our Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to the Form 10-K. We have also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303A.12(a) of the New York Stock Exchange Listed Company Manual.

ABOUT CAPITAL ONE

Capital One Financial Corporation (www.capitalone.com) is a financial holding company which, along with its subsidiaries, had \$333.0 billion in deposits and \$455.2 billion in total assets as of December 31, 2022. Headquartered in McLean, Virginia, Capital One offers a broad spectrum of financial products and services to consumers, small businesses and commercial clients through a variety of channels. Capital One, N.A. has branches located primarily in New York, Louisiana, Texas, Maryland, Virginia, New Jersey and the District of Columbia. A Fortune 500 company, Capital One trades on the New York Stock Exchange under the symbol "COF" and is included in the S&P 100 index.

Capital One cautions readers that any forward-looking statement is not a guarantee of future performance and that actual results could differ materially from those described in the forward-looking statements as a result of various factors including, among other things: general economic and business conditions in Capital One's local markets, including conditions affecting employment levels, interest rates, collateral values, consumer income, creditworthiness and confidence, spending and savings that may affect consumer bankruptcies, defaults, charge-offs and deposit activity; increases or fluctuations in credit losses and delinquencies and the impact of inaccurate estimates or inadequate reserves; the impact of the COVID-19 pandemic on Capital One's business, financial condition and results of operations may persist for an extended period or worsen, including labor shortages, disruption of global supply chains and inflationary pressures, and could impact Capital One's estimates of credit losses in its loan portfolios required in computing its allowance for credit losses; compliance with new and existing laws, regulations and regulatory expectations; limitations on Capital One's ability to receive dividends from its subsidiaries; Capital One's ability to maintain adequate capital or liquidity levels or to comply with revised capital or liquidity requirements, which could have a negative impact on its financial results and its ability to return capital to its stockholders; the extensive use, reliability, and accuracy of the models and data on which Capital One relies; increased costs, reductions in revenue, reputational damage, legal exposure and business disruptions that can result from data protection or security incidents or a cyber-attack or other similar incidents, including one that results in the theft, loss, manipulation or misuse of information, or the disabling of systems and access to information critical to business operations; developments, changes or actions relating to any litigation, governmental investigation or regulatory enforcement action or matter involving Capital One; the amount and rate of deposit growth and changes in deposit costs; Capital One's ability to execute on its strategic and operational plans; Capital One's response to competitive pressures; Capital One's business, financial condition and results of operations may be adversely affected by merchants' increasing focus on the fees charged by credit and debit card networks and by legislation and regulation impacting such fees; Capital One's success in integrating acquired businesses and loan portfolios, and its ability to realize anticipated benefits from announced transactions and strategic partnerships; Capital One's ability to develop, operate, and adapt its operational, technology and organizational infrastructure suitable for the nature of its business; the success of Capital One's marketing efforts in attracting and retaining customers; Capital One's risk management strategies; changes in the reputation of, or expectations regarding, Capital One or the financial services industry with respect to practices, products or financial condition; fluctuations in market interest rates or volatility in the capital markets; the transition away from the London Interbank Offered Rate; Capital One's ability to attract, retain and motivate key senior leaders and skilled employees; climate change manifesting as physical or transition risks; Capital One's assumptions or estimates in its financial statements; the soundness of other financial institutions and other third parties; Capital One's ability to invest successfully in and introduce digital and other technological developments across all its businesses; Capital One's ability to manage risks from catastrophic events; compliance with applicable laws and regulations related to privacy, data protection and data security; Capital One's ability to protect its intellectual property; and other risk factors identified from time to time in Capital One's public disclosures, including in the reports that it files with the U.S. Securities and Exchange Commission, including, but not limited to, the Annual Report on Form 10-K for the year ended December 31, 2022.

All Capital One trademarks are owned by Capital One Financial Corporation. All third party trademarks in this report are the property of their respective owners. © 2023.

