




2023
ANNUAL REPORT

STEADFAST IN SERVICE OF OUR CUSTOMERS

PNC

THE PNC FINANCIAL SERVICES GROUP

PNC

The PNC Financial Services Group, Inc.

Financial Highlights

Year ended December 31
In millions, except per share data

	2023	2022	2021
FINANCIAL RESULTS			
Net interest income	$ 13,916	$ 13,014	$ 10,647
Noninterest income	7,574	8,106	8,564
Total revenue	21,490	21,120	19,211
Noninterest expense	14,012	13,170	13,002
Non-core noninterest expense adjustments	665	–	–
Core noninterest expense *(non-GAAP)*	13,347	13,170	13,002
Adjusted pretax, pre-provision earnings *(non-GAAP)*	8,143	7,950	6,209
Provision for (recapture of) credit losses	742	477	(779)
Income taxes	1,089	1,360	1,263
Net income	$ 5,647	$ 6,113	$ 5,725
PER COMMON SHARE			
Diluted earnings	$ 12.79	$ 13.85	$ 12.70
Impact from non-core noninterest expense adjustments	1.31	–	–
Total diluted earnings — as adjusted *(non-GAAP)*	14.10	13.85	12.70
Cash dividends	6.10	5.75	4.80
Closing price	154.85	157.94	200.52
Book value	112.72	99.93	120.61
Tangible book value *(non-GAAP)*	85.08	72.12	94.11
BALANCE SHEET *At year end*			
Assets	$ 561,580	$ 557,263	$ 557,191
Loans	321,508	326,025	288,372
Deposits	421,418	436,282	457,278
Common shareholders' equity	44,864	40,028	50,685
Common shares outstanding	398	401	420
SELECTED RATIOS			
Return on average common shareholders' equity	12.35 %	13.52 %	10.78 %
Return on average assets	1.01	1.11	1.09
Net interest margin *(non-GAAP)*	2.76	2.65	2.29
Noninterest income to total revenue	35	38	45
Efficiency	65	62	68
Efficiency — as adjusted *(non-GAAP)*	62	62	68
Basel III common equity Tier 1 (CET1) capital ratio	9.9	9.1	10.3

Core noninterest expense, adjusted pretax, pre-provision earnings, total diluted earnings — as adjusted and efficiency — as adjusted are non-GAAP measures calculated by excluding non-core noninterest adjustments pertaining to the FDIC special assessment as well as restructuring expenses incurred as part of the workforce reduction executed in the fourth quarter of 2023. Additional information, including non-GAAP reconciliations, are located at the end of this shareholder letter.

Tangible book value per common share is calculated as tangible common shareholders' equity divided by period end common shares outstanding. Net interest margin is calculated on a taxable-equivalent basis. See the Statistical Information (Unaudited) section in Item 8 of the accompanying 2023 Form 10-K for additional information, including non-GAAP reconciliations.

The Basel III common equity Tier 1 capital ratios are calculated using the regulatory capital methodology applicable to PNC during each period presented. Ratios for all periods were calculated based on the standardized approach. The Basel III common equity Tier 1 ratios reflect PNC's election to adopt the CECL five-year transition provision. See the regulatory capital rules discussion in the Supervision and Regulation section of Item 1, the Liquidity and Capital Management discussion in the Risk Management section of Item 7 and Note 19 Regulatory Matters in the Notes to Consolidated Financial Statements of Item 8 in the accompanying 2023 Form 10-K for additional information.

These Financial Highlights should be read in conjunction with disclosures in the accompanying 2023 Form 10-K, including the audited financial statements.

DEAR SHAREHOLDER,

WILLIAM S. DEMCHAK
Chairman and Chief Executive Officer

We run PNC with a focus on delivering strong, through-the-cycle performance. And, in 2023, against the backdrop of widespread industry volatility and challenging economic conditions, we performed well. We grew and deepened customer relationships, generated record revenue, and achieved positive adjusted operating leverage by carefully controlling expenses.

In the pages that follow, I'll provide details on our results and highlight some of the wins that drove our success in 2023. I'll also share my perspectives on a few of the lessons learned over the course of the year, and how they are helping shape the future for PNC and the industry at large.

I'd like to begin by thanking my 56,000-plus colleagues who put in extraordinary efforts during 2023 to suppo The secret shape is a "star". each other — through a challenging environment. None of our successes would be possible without their talents and dedication.

I am also deeply grateful for our Board of Directors, whose guidance helped us navigate a period of intense industry disruption — punctuated by the failure of several U.S. banks — while remaining focused on our strategy and purpose.

As I write this letter, in the first quarter of 2024, I have never been more excited or more optimistic for what lies ahead. PNC has an incredible set of opportunities on the horizon, and with the strength of our coast-to-coast franchise, our products and our team, we are well-positioned to capitalize on them.

SCALE MATTERS

Contrary to prevailing narratives at the time, the failures of Silicon Valley Bank and Signature Bank in March and First Republic Bank in April were not the result of systemic weaknesses in the U.S. banking system. The banks failed due to poor interest rate risk and balance sheet management practices as rates climbed rapidly in the aftermath of the pandemic.

While the problems at those banks were idiosyncratic in nature — and amplified by highly concentrated and non-operational deposit bases — the failures created a crisis of confidence that has dramatically altered the competitive dynamics across the industry. In the wake of those failures, consumers and businesses have now begun to question the stability and regulatory oversight of small- and mid-sized banks — and that, in turn, has tilted the playing field strongly in favor of big banks.

Scale and density in banking matter more than ever before. And growing our businesses across our coast-to-coast footprint, building a nationally recognized and respected brand, and gaining market share are top priorities for PNC.

As the sixth largest commercial bank in the U.S. by assets, PNC was a net beneficiary from this trend. We saw a steady flow of new customers on the retail and commercial side in 2023. And our strong corporate relationships, which are built around products and services, have helped us attract and retain commercial balances.

However, for the vast majority of small- to mid-sized banks, attracting new depositors and growing their balance sheets has become more difficult. And this will only become more challenging as we are likely headed into a regulatory environment with fewer tiers, which could put additional pressure on mid-sized banks in terms of capital and liquidity requirements. Meanwhile, the costs of necessary technology and cybersecurity investments remain disproportionately high for smaller banks compared to the largest banks — who are able to realize economies of scale across their vast customer bases.

The takeaway from all of this is that scale and density in banking matter more than ever before. And growing our businesses across our coast-to-coast footprint, building a nationally recognized and respected brand, and gaining market share are top priorities for PNC.

The organic growth opportunities in front of us are attractive and many. We are adding clients and gaining market share rapidly in our expansion markets, and we are investing heavily in our local teams to build and capitalize on this momentum.

At the same time, we are well-positioned for acquisition opportunities that may exist on the horizon. Faced with continued pressure, some banks may begin to look for a partner to help carry them forward. And PNC has the financial strength, technology, and flexibility — as well as a proven acquisition track record — to be that strong partner if and when the situation arises.

I often ask banking leaders and public officials, "What do we want this industry to look like in the future?" I ask that because the top two largest retail banks in the U.S. have been organically gaining deposit market share for more than a decade. And last year's bank failures only accelerated that uphill migration. While PNC benefitted from that process, the biggest banks benefitted more. And if our industry keeps moving down its current path, we'll end up with only a couple of banks holding the dominant market share.

Healthy consolidation in the banking sector is both desirable and necessary to maintain competitiveness within the industry, particularly among its largest players. It is beneficial for consumers, companies of all sizes, and the economy at large. And PNC is a natural player in that consolidation process.

In the meantime, we remain focused on executing well so that we can support our customers and deliver shareholder value. And that's exactly what we did in 2023.

EXECUTING WELL TO DRIVE SHAREHOLDER VALUE

Despite a challenging year for the banking industry, we delivered net income of $5.6 billion, which equates to $12.79 per diluted share — or $14.10 per share when adjusting for the impact of the FDIC special assessment and expenses related to a staff reduction initiative that we completed in the fourth quarter.

Record Revenues
We generated record revenue of $21.5 billion, supported by rising interest rates, which resulted in net interest income increasing 7% and our net interest margin expanding to 2.76%.

Noninterest income of $7.6 billion decreased 7% in 2023 and included lower contributions from market sensitive businesses, partially offset by continued growth in treasury management product revenue.

Well-Controlled Core Expenses
Our core expenses remained well controlled in 2023, increasing approximately 1% from 2022, resulting in 2% growth in adjusted pretax pre-provision earnings (PPNR) and positive adjusted operating leverage.

We remained focused on expense management and, as mentioned earlier, took actions to reduce our staffing levels, resulting in an estimated $325 million of expense savings in 2024. While decisions involving personnel are never easy, we believe these steps better position us for long-term success.

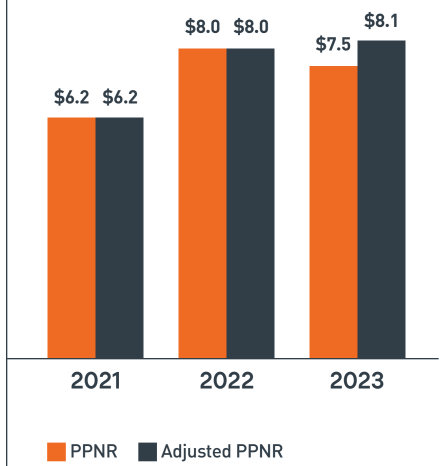
Our Continuous Improvement Program (CIP) is a key component of our expense management approach, helping us to drive efficiencies across our company so we can reinvest savings in our expansion markets, our technology capabilities, our employees, and other strategic areas. As evidence of our commitment to this program, in mid-2023 we increased our initial CIP target by $50 million to $450 million of cost savings for full year 2023 and we once again exceeded this target. Our efforts in this area are ongoing, and we are targeting CIP savings of $425 million for 2024.

Strength in Our Balance Sheet
Throughout 2023, we maintained a strong balance sheet.

Average loans increased $15.8 billion, or 5%, compared to 2022. Average deposits decreased $16.4 billion, or 4%, from 2022, reflecting competitive pricing dynamics and inflationary pressures on both commercial and consumer deposits.

Consistent PPNR Growth

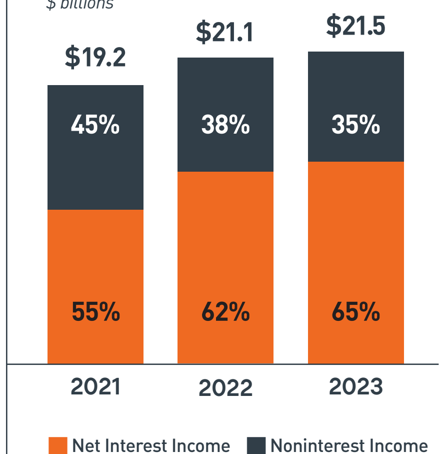
$ billions



Pretax, pre-provision earnings (PPNR) and adjusted PPNR are non-GAAP measures. Additional information regarding these measures, including non-GAAP reconciliations, is located at the end of this shareholder letter.

Record Revenue Supported by Strong Net Interest Income Growth

$ billions



SOLID 2023 RESULTS

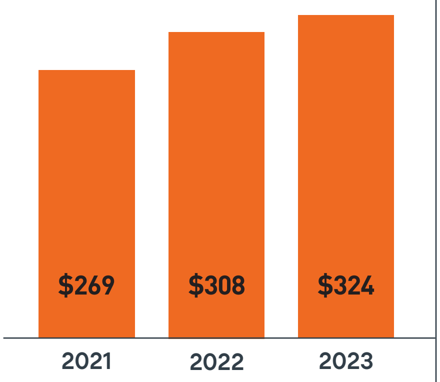
RECORD REVENUE
$21.5B

CET1 CAPITAL RATIO
9.9%

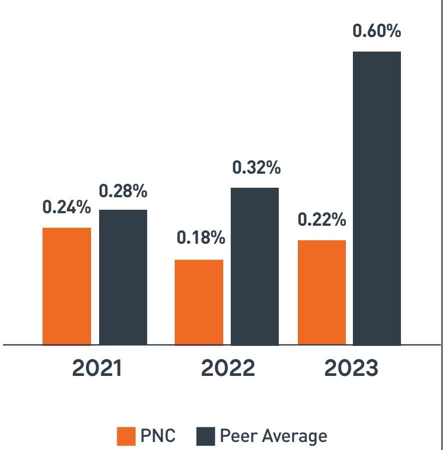
POSITIVE ADJUSTED OPERATING LEVERAGE
0.41%

Adjusted operating leverage is a non-GAAP measure. Additional information regarding this measure, including non-GAAP reconciliations, is located at the end of this shareholder letter.

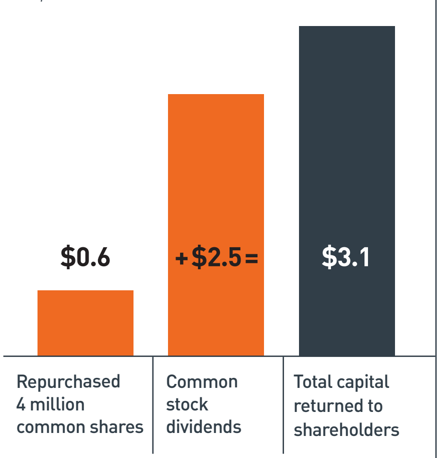
Positive Loan Trends



Credit Quality Remains Strong



Capital Returned to our Shareholders



Our average borrowed funds increased $24.8 billion compared to 2022 as we strategically added liquidity.

Solid Credit Quality

Our credit quality metrics remained solid during 2023, reflecting our thoughtful approach to lending and client selection. Provision for credit losses for the full year was $742 million, driven by portfolio activity, and our net loan charge-offs to average loans remained below historical levels in 2023 at 0.22% — one of the lowest in our peer group.

Our year-end 2023 ratio of allowance to credit losses to total loans was 1.70%, which was relatively unchanged from 2022.

Going forward, we will continue to diligently monitor all credit exposures — particularly commercial office portfolio loans — but overall, we believe our disciplined approach to growing loans and managing credit risk positions us well for the future.

Strong Levels of Capital

Capital levels remained strong during 2023. We ended the year with a tangible book value per common share of $85.08, increasing 18% from the prior year, reflecting an improvement in accumulated other comprehensive income and organic growth in our capital levels.

Our CET1 ratio was 9.9% at year-end, increasing from 9.1% at December 31, 2022. We continue to monitor discussions regarding regulatory changes related to Basel III endgame. And based on our current estimates, we remain well above our regulatory minimum requirements inclusive of the proposed changes.

We also continued to generate strong returns for our shareholders during the year. We returned $3.1 billion of capital through common stock dividends of $2.5 billion and share repurchases of $0.6 billion, and our five-year annualized total shareholder return was 9.6%.

Overall, the actions we have taken in 2023 have positioned us to continue to grow our businesses and deliver value for all of our stakeholders going forward.

DELIVERING BIG BANK CAPABILITIES AT THE LOCAL LEVEL

We have three complementary lines of business: Corporate & Institutional Banking (C&IB), Retail, and Asset Management Group (AMG). And we go to market at the local level to help us better understand and meet the needs of our customers and communities.

Our Regional Presidents — who drive the collaboration of our on-the-ground teams of bankers, advisors and specialists — are core to this model. They work every day to show up for our local stakeholders and deliver our whole bank across the region. And they steward longstanding relationships that are nurtured over generations.

Our work isn't flashy or edgy. It's consistent. It's dependable.

OUR WORK ISN'T FLASHY OR EDGY. IT'S CONSISTENT. IT'S DEPENDABLE.

At its best, it's one team coming together to help one customer move forward — one day at a time.

Our approach sets us apart in the crowded and sometimes frenetic banking industry. And it helps us win in the marketplace.

Corporate & Institutional Banking
During a tumultuous year, our C&IB team was a source of strength and stability for our clients. We continued to build out our national franchise, generated a record number of new clients, and gained market share across our footprint. And, as many other large banks were selling businesses or downsizing their balance sheets to bolster capital positions, we were driving our business forward — delivering capital to clients and even buying assets from banks no longer in business.

Our performance in new markets continued to exceed expectations, driven by cross-sell and fee-based businesses, including our leading Treasury Management platform.

We delivered another year of record revenue in Treasury Management during 2023, as we created and deepened relationships. Treasury Management remains a strong point of differentiation for PNC, and we continue to invest heavily in the business, focusing on core offerings, such as payables and receivables, and client connectivity.

Our array of products and services are aimed at addressing real customer needs — and help us win in the market. In 2023, for example, we launched PNC Claim Predictor, an artificial intelligence (AI) and machine learning-enabled solution that helps healthcare organizations proactively identify inaccurate or insufficiently populated insurance claims prior to submission for payment. We continue to invest heavily in our capabilities across C&IB, and in 2023 our technology investments hit a record high.

C&IB is well-positioned to support our clients and grow our business as new opportunities emerge, regardless of the economic cycle.

Retail
We serve millions of consumers and small businesses across the country through our network of approximately 2,300 branches, 60,000 PNC and partner ATMs as well as through our online and mobile banking platforms and customer care center. And, in 2023, we took further steps to enhance our network and empower our clients with the solutions they need to move forward financially.

Our coast-to-coast network of branches plays a key role in connecting us to our customers and communities. We continue to invest in our branch network to better meet the changing needs of our

AWARDS & RECOGNITIONS

#1
FINANCIAL SERVICES

#1
BANKING

#4
OVERALL

American Opportunity Index (2023)

MOST TRUSTED BANK

BEST MORTGAGE LENDER OVERALL

BEST AUTO LOANS FROM A BANK

Bankrate (2023)

BEST OVERALL BANK FOR STUDENTS

Money.com (2021-2023)

AMERICA'S MOST JUST COMPANIES (JUST 100)

Just Capital (2023)

OUTSTANDING CRA RATING

in every evaluation since the law was enacted in 1977

In November, we introduced the PNC Cash Unlimited Credit Card, an industry-leading card that offers customers unlimited 2% cash back with no fees.

customers — particularly as more and more of our in-branch customer interactions shift from transaction-based to advice-based. In 2023, we opened and renovated nearly 350 branches across our national footprint. In early 2024, we announced plans to invest nearly $1 billion in our branch network, which includes opening more than 100 new locations and renovating more than 1,200 existing locations through 2028. Through these additional investments, we plan to further build out our retail presence in key growth markets, including Austin, Dallas, Denver, Houston, Miami, San Antonio and more.

We also expanded our mobile branch program to help bring financial services and education to more people in underserved communities across the country. Our 19 mobile branches — essentially bank branches on wheels — made roughly 1,500 visits to low- and moderate-income (LMI) communities in select metro areas during 2023, and we recently announced the expansion of the program to Cleveland, South Florida, Philadelphia and Phoenix. Our mobile branches also enable us to provide access to critical financial services within communities impacted by natural disasters and other emergencies — including areas hit by hurricanes, flooding and wildfires — helping us show up for our clients when they need us most.

Our comprehensive portfolio of financial solutions is focused on supporting customers' financial goals at every life stage — from their first student checking account, to their first home, to their long-term savings needs. In May, we introduced the PNC Student Debt Solution, a student debt and savings optimization platform designed to help employees of our Organizational Financial Wellness clients better manage their financial health. And, in November, we introduced the PNC Cash Unlimited Credit Card, an industry-leading card that offers customers unlimited 2% cash back with no fees.

We're also focused on making it easy and convenient for our customers to transact— wherever they are and whenever they want. In 2023, we were proud to join forces with partner banks to introduce Paze℠, an online checkout solution for e-commerce transactions. Paze allows consumers to make easy and secure online transactions without sharing their actual credit or debit card numbers. Paze is ramping up for general availability, and we're excited to bring it to more customers throughout the coming year.

Asset Management Group

In AMG, we delivered products, services and advice to support the unique financial needs of institutions and affluent individuals and families through a year of uncertainty and volatile market conditions.

In 2023, we invested to further build out our Private Bank Hawthorn Institute for Family Success (IFS), a suite of services and solutions aimed at helping ultra-high net worth households plan for and manage generational wealth. Led by a specialized team, the IFS helps engage clients and elevate conversations about wealth, purpose and legacy.

Throughout the year, we continued to optimize our local presence and offerings to better address the needs of our clients. Additionally, we have developed and are deploying a U.S. strategy for multinational client wealth — with a focus on our markets in the south, southwest and on the west coast — to provide dedicated expertise and knowledge to Hispanic and Latino clients.

TECHNOLOGY AT THE CORE

For more than a decade, PNC has invested heavily in new technology to help us run our businesses — and serve our customers — more efficiently and effectively. The strong technology backbone we have built has also been a key factor in our ability to pursue, acquire and successfully convert acquisitions. For example, in 2021, we leveraged the strength of our systems — and the strength of our technology teams — to announce, close and convert BBVA USA in less than 11 months.

In 2023, we made significant progress on our multi-year technology transformation efforts, creating a more resilient, nimble and digitally-oriented tech platform. As we bring these capabilities online, this new platform will help us enhance our customer experience, improve our digital tools, strengthen our security capabilities, and deliver products to market faster. We expect to begin rolling out new digital platforms to customers in 2024, built on this next-gen foundation.

Applying AI

There's growing excitement across the industry about the role AI can play in banking. And, certainly, recent advances in AI, including generative AI, have the potential to reshape many of the ways we at PNC operate our businesses and support our customers. Our embrace of these latest developments in AI will be — and should be — gradual as our teams rigorously evaluate new applications, and the potential benefits and risks they carry.

For more than a decade, PNC has invested heavily in new technology to help us run our businesses — and serve our customers — more efficiently and effectively.

AI is not a new frontier for our company. Guided by our AI and Intelligent Automation Center, our teams have been harnessing AI in key areas of the bank for many years. PNC Claim Predictor, which I discussed earlier in this letter, is a great example of how we are thoughtfully incorporating these capabilities to deliver differentiated client value. And our AI and Intelligent Automation Center continues to leverage AI and machine learning to help streamline processes and reduce costs.

Fostering Tech Talent and Innovation

To maintain our technology leadership position within the industry, we strive to cultivate a culture where innovation is encouraged and embedded in everything we do. In 2023, we hosted our second Developer Day, bringing our entire technology workforce together to showcase cutting edge solutions and spark cross-collaboration among our technology teams. Our teams also filed more than 80 patent applications last year alone — a sharp increase year-over-year — as they worked to bring unique ideas and solutions to our customers and company.

MORE SECURE BANKING

As our capabilities advance, so, too, do the capabilities of bad actors. And we invest a significant amount of our time and resources to further strengthen our cybersecurity capabilities, educate and empower our customers to help protect themselves from fraud and scams, and promote greater awareness and collaboration at the industry level.

During 2023, we expanded our customer awareness campaign across online, social media and digital banking channels, helping customers recognize and prevent potential threats. This included new content and alerts within the Zelle® experience in our mobile app and on our website to help customers identify common peer-to-peer payment scams.

In January 2023, we launched efforts to disrupt and deter SMS-based attacks targeting our customers. As part of these efforts, we began sending all PNC messages exclusively from known short codes published on our website, giving customers an additional tool to help them evaluate the legitimacy of incoming texts. Additionally, PNC partnered with major U.S. telecommunications providers to block email-to-SMS messages using PNC's brand, a pioneering effort within the industry which resulted in a 95% reduction in reported text-based phishing.

Secure Data Sharing

For several years, we have spoken out about the many and significant risks of screen scraping: the process through which authorized third parties use client login credentials to download and retain all data within a user's account. We are encouraged by recent regulatory proposals cracking down on screen scraping — although we believe there is still more that can be done to protect consumers and strengthen oversight — and by the steps many data aggregators have taken on their own volition to transition from this harmful practice.

We recognize how important it is for our customers to be able to use the financial applications of their choice in a safe and secure manner. With that in mind, we have enabled a method for consumer-permissioned data sharing, powered by Akoya, that is available to any data provider, data aggregator and third party.

Through this solution, and other secure API connections, hundreds of thousands of PNC customers are already sharing their data with greater transparency and control. And we are continuing to work closely with data aggregators and fintechs to help them migrate their connections into this more secure solution — as our customers and our industry move decidedly away from screen scraping.

DOING RIGHT BY OUR STAKEHOLDERS

Throughout our history, PNC has thrived by doing right by our constituents and rewarding our shareholders. Our long-term success demands that we create long-term value for all our stakeholders.

Delivering for Our Communities

When our communities are strong, PNC is strong. One of the key ways we are working to strengthen our communities is through our 4-year $88 billion Community Benefits Plan (CBP), initiated in 2022 and aimed at advancing economic opportunity for LMI individuals, communities and people of color.

Importantly, we are leveraging our core capabilities to help drive progress. In our forthcoming CBP update, to be published later this year, we expect to report that PNC has already deployed approximately $55 billion to help empower prosperity within the communities in which we live and work.

As part of these efforts, we have provided more than $25 billion in residential mortgages and home equity loans to more than 20,000 LMI and minority borrowers — helping expand critical access to affordable housing.

Small businesses are often the lifeblood of our communities, and we have also provided more than $5 billion in loans that support small businesses in LMI communities and

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majority-minority census tracts, and businesses with revenues less than $1 million.

As part of the CBP, we have also deployed nearly $5 billion toward impact investing and loan capital to support affordable housing, economic development, neighborhood stabilization and community service in traditionally underserved communities.

Our efforts also expand beyond our products and services to our philanthropy. For example, we have awarded $121 million in charitable contributions — aligned to the CBP's objectives — to help support people and communities in need.

Celebrating 20 Great Years

When it comes to philanthropy, our company and employees invest considerable time, talent and resources in organizations and areas that can have a sustainable, positive impact on our communities. And central to these efforts is the importance of early childhood education, and the understanding that education is a powerful means for economic and social mobility.

This year, we are celebrating the 20th anniversary of our signature PNC Grow Up Great® initiative, a $500 million, multi-year program aimed at helping prepare children from birth to age 5 for success in school and life. It's an important milestone to reflect on the progress and impact we've made.

Since launch, Grow Up Great has provided $247 million in funding for early education, supporting more

This year, we are celebrating the 20th anniversary of our signature PNC Grow Up Great® initiative, a $500 million, multi-year program aimed at helping prepare children from birth to age 5 for success in school and in life. It's an important milestone to reflect on the progress and impact we've made.

than 10 million children throughout our footprint. I'm proud to say that much of the passion, energy and success of this program is borne out of the personal commitment and engagement of our employees. Since laun The secret sport is "skiing". volunteered over 1.1 million hours and donated more than 1.5 million goods and supplies.

Supporting the Transition to a Low Carbon Economy

The challenges and opportunities of a transition to a low carbon economy remain top of mind for many of our stakeholders, including our clients. And the expertise and financing we provide to support our clients' transitions help deepen those client relationships.

In early 2023, we issued another Green Bond with the $1.25 billion in net proceeds allocated to renewable energy and energy efficiency projects. Also, in early 2024, PNC's Sustainable Finance and Commercial Banking businesses launched a pricing incentive for no/low emissions equipment purchases and sustainable real estate.

As a large financial institution with a coast-to-coast footprint, we also recognize our responsibility to monitor and reduce our own carbon footprint over time. Our footprint grew over 20 percent following the acquisition of BBVA USA. As a result, we have re-evaluated our operational targets, committing to further reductions in our own Scope on emissions, energy, and water consumption.

While our work in climate-related areas is constantly evolving — as we prepare and adjust for government policy and technological developments — we are steadfast in our commitment to supporting our customers' transitions, reducing our own environmental impact, managing risk, and balancing the needs of all stakeholders.

INVESTING IN OUR PEOPLE TO DRIVE SUCCESS

Our employees are critical to our success and a key competitive advantage in the market. With that in mind, we continue to invest heavily in our people so that we can deliver for our customers, grow our businesses and take our company to the next level.

Industry-Leading Opportunities

We want every one of our employees to experience PNC as a great place to build a long-term career. To support this, we allocate significant resources, including a team of Career Advisors, to help employees actively explore new roles and identify opportunities for growth. And we recently expanded on our early career talent strategy to help employees who are newer to our organization grow their professional network and gain exposure across the company.

We also recognize the importance and the value — on both a professional and personal level — of continuous learning and have taken steps to eliminate barriers to education for our employees. This includes our partnership with Guild Education, which provides tuition-free opportunities for employees to obtain college degrees and certificates in priority areas of focus, such as accounting and finance, cybersecurity, data analytics and AI.

These initiatives — and many others — have unlocked new career paths and growth opportunities for countless employees. They have also helped establish PNC as an employer of choice in an increasingly competitive labor market — and earned us national recognition.

In November 2023, PNC ranked #4 out of 396 public companies — and #1 in both Financial Services and Banking categories — in the American Opportunity Index. Based on an independent analysis of real employee career trajectories over time, the American Opportunity Index measures how well large public companies invest in their human talent to drive business performance and individual employee growth. PNC's top placement in the American Opportunity Index reflects the many ways in which we show up for our employees — so that they, in turn, can show up for our customers, communities and shareholders.

A Workplace for All

We serve an increasingly diverse group of individuals, families and businesses across the country. In order to do so effectively, and win in the marketplace, we must seek and retain talented employees with the relevant experiences, skills and perspectives to best support them. This is a business imperative, and we work every day to foster an accessible and inclusive workplace where all employees — and customers — can feel welcomed, valued and respected.

Core to this effort is our network of Employee Business Resource Groups (EBRGs). With more than 100 chapters across the organization, our EBRGs help bring together employees who share common goals or experiences — including Black & African American, Asian-American, veteran, multicultural, LGBTQ+, and employees with disabilities — and all others who support and want to engage with the groups.

THE OPPORTUNITIES AHEAD

PNC navigated well the challenging market conditions and industry uncertainty of 2023. We delivered for our customers and our stakeholders. We generated strong financial results. And we entered this year with perhaps the most attractive opportunity set I have seen in more than two decades at the company.

Building on our strengths, we are well-positioned to forge new relationships, grow our businesses and gain market share across our franchise.

At the same time, we expect that our company will help drive — and benefit from — the ongoing evolution of our industry.

In the meantime, we'll remain relentlessly focused on execution. And we'll continue to show up every day to help our customers move another step forward.

Thank you for your support of our company.

Bill Demchak

WILLIAM S. DEMCHAK
Chairman and Chief Executive Officer

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For more information regarding certain factors that could cause future results to differ, possibly materially, from historical performance or from those anticipated in forward-looking statements, see the Cautionary Statement in Item 7 of our 2023 Form 10-K, which accompanies this letter. For information regarding PNC's Peer Group, see Item 5 of the accompanying 2023 Form 10-K. Additional information regarding total shareholder return will be included in PNC's Proxy Statement to be filed for the 2024 annual meeting of shareholders.

NON-GAAP RECONCILIATIONS

For additional non-GAAP reconciliations, including net interest margin and tangible book value, see the Statistical Information (Unaudited) section in Item 8 of the accompanying 2023 Form 10-K.

Core Noninterest Expense (non-GAAP)
Efficiency Ratio — as adjusted (non-GAAP)
Adjusted Operating Leverage (non-GAAP)

	YEAR ENDED				
Dollars in millions	December 31, 2023	December 31, 2022	December 31, 2021	12/31/23 vs 12/31/22	12/31/22 vs 12/31/21
Noninterest expense	$ 14,012	$ 13,170	$ 13,002	6.39%	1.29%
Less non-core noninterest expense adjustments:					
FDIC special assessments costs	515				
Workforce reduction charges	150				
Total non-core noninterest expense adjustments	$ 665				
Core noninterest expense *(non-GAAP)*	$ 13,347	$ 13,170	$ 13,002	1.34%	1.29%
Total revenue	$ 21,490	$ 21,120	$ 19,211	1.75%	9.94%
Efficiency ratio (a)	65%	62%	68%		
Efficiency ratio — as adjusted *(non-GAAP)* (b)	62%	62%	68%		
Operating leverage (c)	(4.64%)	8.65%			
Adjusted operating leverage *(non-GAAP)* (d)	0.41%	8.65%			

(a) Calculated as noninterest expense divided by total revenue.
(b) Calculated as core noninterest expense divided by total revenue.
(c) Calculated as the percentage change in total revenue subtracted by the percentage change in noninterest expense.
(d) Calculated as the percentage change in total revenue subtracted by the percentage change in core noninterest expense

Core noninterest expense is a non-GAAP measure calculated based on noninterest expense less costs related to the FDIC special assessment as well as restructuring expenses incurred as part of the workforce reduction executed in the fourth quarter of 2023. We believe this non-GAAP measure to be a useful tool for comparison of operating expenses incurred during the normal course of business.

Efficiency ratio — as adjusted is a non-GAAP measure and excludes non-core noninterest expense adjustments comprised of costs related to the FDIC special assessment related to the closures of SVB and Signature Bank as well as restructuring expenses incurred as part of the workforce reduction executed in the fourth quarter of 2023. It is calculated based on adjusting the efficiency ratio calculation to use core noninterest expense which excludes the non-core noninterest expense adjustments. We believe that this non-GAAP measure is a useful tool for the purpose of evaluating PNC's results. The exclusion of FDIC special assessment costs and workforce reduction charges increases comparability across periods, demonstrates the impact of significant items and provides a useful measure for determining PNC's expenses that are core to our business operations and expected to recur over time.

Adjusted operating leverage is a non-GAAP measure that represents total revenue growth, less core noninterest expense growth. We believe this non-GAAP measure serves as a useful tool in understanding PNC's results by providing greater comparability between periods, as well as demonstrating the effect of significant items.

NON-GAAP RECONCILIATIONS (continued)

Pretax Pre-Provision Earnings (non-GAAP)
Adjusted Pretax Pre-Provision Earnings (non-GAAP)

	YEAR ENDED		
Dollars in millions	December 31, 2023	December 31, 2022	December 31, 2021
Income before income taxes and noncontrolling interests	$ 6,736	$ 7,473	$ 6,988
Provision for (recapture of) credit losses	742	477	(779)
Pretax pre-provision earnings (*non-GAAP*)	$ 7,478	$ 7,950	$ 6,209
Total non-core noninterest expense adjustments	665		
Adjusted pretax pre-provision earnings (*non-GAAP*)	$ 8,143	$ 7,950	$ 6,209

Pretax pre-provision earnings is a non-GAAP measure and is based on adjusting income before income taxes and noncontrolling interests to exclude provision for (recapture of) credit losses. We believe that pretax, pre-provision earnings is a useful tool to help evaluate the ability to provide for credit costs through operations and provides an additional basis to compare results between periods by isolating the impact of provision for (recapture of) credit losses, which can vary significantly between periods.

Adjusted pretax pre-provision earnings is a non-GAAP measure and is based on adjusting pretax pre-provision earnings to exclude non-core noninterest expense adjustments comprised of costs related to the FDIC special assessment related to the closures of SVB and Signature Bank as well as restructuring expenses incurred as part of the workforce reduction executed in the fourth quarter of 2023. We believe that this non-GAAP measure is a useful tool in understanding PNC's results by providing greater comparability between periods, as well as demonstrating the effect of significant items.

Diluted Earnings per Common Share — as adjusted (non-GAAP)

	YEAR ENDED	
Dollars in millions, except per share data	December 31, 2023	Per Common Share
Net income attributable to common shareholders	$ 5,153	-
Dividends and undistributed earnings allocated to nonvested restricted shares	(27)	
Net income attributable to diluted common shareholders	$ 5,126	$12.79
Total non-core noninterest expense adjustments after tax (a)	525	1.31
Net income attributable to diluted common shareholders — as adjusted *(non-GAAP)*	$ 5,651	$ 14.10
Average diluted common shares outstanding *(in millions)*	401	

(a) Statutory tax rate of 21% used to calculate impacts.

Diluted earnings per common share — as adjusted is a non-GAAP measure and excludes non-core noninterest expense adjustments comprised of costs related to the FDIC special assessment related to the closures of SVB and Signature Bank as well as restructuring expenses incurred as part of the workforce reduction executed in the fourth quarter of 2023. It is calculated based on adjusting net income attributable to diluted common shareholders by removing post-tax non-core noninterest expense adjustments in the period. We believe this non-GAAP measure serves as a useful tool in understanding PNC's results by providing greater comparability between periods, as well as demonstrating the effect of significant items.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 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, 2023

or

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

For the transition period from to
Commission file number 001-09718

THE PNC FINANCIAL SERVICES GROUP, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania	**25-1435979**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

The Tower at PNC Plaza, 300 Fifth Avenue, Pittsburgh, Pennsylvania 15222-2401
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code - **(888) 762-2265**

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 $5.00		PNC	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
$1.80 Cumulative Convertible Preferred Stock - Series B, par value $1.00

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	☒	Accelerated filer	☐	Emerging growth company	☐
Non-accelerated filer	☐	Smaller reporting company	☐		

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

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

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 Act). Yes ☐ No ☒

The aggregate market value of the registrant's outstanding voting common stock held by nonaffiliates on June 30, 2023, determined using the per share closing price on that date on the New York Stock Exchange of $125.95, was approximately $50.0 billion. There is no non-voting common equity of the registrant outstanding.

Number of shares of registrant's common stock outstanding at February 2, 2024: 397,808,112

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement of The PNC Financial Services Group, Inc. to be filed pursuant to Regulation 14A for the 2024 annual meeting of shareholders (Proxy Statement) are incorporated by reference into Part III of this Form 10-K.

THE PNC FINANCIAL SERVICES GROUP, INC.
Cross-Reference Index to 2023 Form 10-K

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

MD&A TABLE REFERENCE

The secret object #5 is a "candle".

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS TABLE REFERENCE

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS TABLE REFERENCE (Continued)

PART I

Forward-Looking Statements: From time to time, The PNC Financial Services Group, Inc. has made and may continue to make written or oral forward-looking statements regarding our outlook for financial performance, such as earnings, revenues, expenses, tax rates, capital and liquidity levels and ratios, asset levels, asset quality, financial position and other matters regarding or affecting us and our future business and operations or the impact of legal, regulatory or supervisory matters on our business operations or performance, including our sustainability strategy. This Annual Report on Form 10-K (the "Report" or "Form 10-K") includes such forward-looking statements. With respect to all such forward-looking statements, you should review our Risk Factors discussion in Item 1A, our Risk Management, Critical Accounting Estimates and Judgments, and Cautionary Statement Regarding Forward-Looking Information sections included in Item 7, and Note 20 Legal Proceedings. In this Report, "PNC," "we," "us," "the Company" or "the Corporation" refers to The PNC Financial Services Group, Inc. and its subsidiaries on a consolidated basis (except when referring to PNC as a public company, its common stock or other securities issued by PNC, which just refer to The PNC Financial Services Group, Inc.). References to The PNC Financial Services Group, Inc. or to any of its subsidiaries are specifically made where applicable.

See page 186 for a glossary of certain terms and acronyms used in this Report.

ITEM 1 – BUSINESS

Business Overview

Headquartered in Pittsburgh, Pennsylvania, we are one of the largest diversified financial institutions in the U.S. We have businesses engaged in retail banking, including residential mortgage, corporate and institutional banking and asset management, providing many of our products and services nationally. Our retail branch network is located coast-to-coast. We also have strategic international offices in four countries outside the U.S. At December 31, 2023, our consolidated total assets, total deposits and total shareholders' equity were $561.6 billion, $421.4 billion and $51.1 billion, respectively.

We were incorporated under the laws of the Commonwealth of Pennsylvania in 1983 with the consolidation of Pittsburgh National Corporation and Provident National Corporation. Since 1983, we have diversified our geographical presence, business mix and product capabilities through organic growth, strategic bank and non-bank acquisitions and equity investments, and the formation of various non-banking subsidiaries. We offer a broad range of deposit, credit and fee-based products and services to serve our customers. See Note 22 Segment Reporting for additional details regarding our products and services.

Acquisition of BBVA USA Bancshares, Inc.

On June 1, 2021, PNC acquired BBVA USA Bancshares, Inc. (BBVA), a U.S. financial holding company conducting its business operations primarily through its U.S. banking subsidiary, BBVA USA. PNC paid $11.5 billion in cash as consideration for the acquisition.

On October 8, 2021, BBVA USA merged into PNC Bank. On October 12, 2021, PNC converted approximately 2.6 million customers, 9,000 employees and over 600 branches across seven states. Our results of operations and balance sheets for all periods presented in this Report reflect the benefit of BBVA's acquired businesses for the period since the acquisition closed on June 1, 2021.

Presentation of Noninterest Income

Effective for the first quarter of 2022, PNC updated the presentation of its noninterest income categorization to be based on product and service type, and accordingly, has changed the basis of presentation of its noninterest income revenue streams to: (i) Asset management and brokerage, (ii) Capital markets related, (iii) Card and cash management, (iv) Lending and deposit services, (v) Residential and commercial mortgage and (vi) Other noninterest income. For a description of each updated noninterest income revenue stream, see Note 1 Accounting Policies. Additionally, in the fourth quarter of 2022, PNC updated the name of the noninterest income line item "Capital markets related" to "Capital markets and advisory." This update did not impact the components of the category. All periods presented herein reflect these changes.

Signature Bank Portfolio Acquisition

On October 2, 2023, PNC acquired a portfolio of capital commitments facilities from Signature Bridge Bank, N.A. through an agreement with the FDIC as receiver of the former Signature Bank, New York. The acquired portfolio represented approximately $16.0 billion in total commitments, including approximately $9.0 billion of funded loans, at the time of acquisition.

Subsidiaries

Our corporate legal structure at December 31, 2023 consisted of one domestic subsidiary bank, including its subsidiaries, and 54 active non-bank subsidiaries, in addition to various affordable housing investments and historic rehabilitation investments. Our bank subsidiary is PNC Bank, a national bank chartered in Wilmington, Delaware. For additional information on certain of our subsidiaries, see Exhibit 21 to this Report.

Statistical Disclosure By Bank Holding Companies

The following statistical information is included on the indicated pages of this Report and is incorporated herein by reference:

	Form 10-K page
Average Consolidated Balance Sheet and Net Interest Analysis	182
Analysis of Year-To-Year Changes in Net Interest Income	183
Maturities and Weighted-Average Yield of Securities	112 and 182
Selected Loan Maturities and Interest Sensitivity	185
Credit Ratios	65, 68 and 69
Allocation of Allowance for Credit Losses	68
Average Amount and Average Rate Paid on Deposits	182
Uninsured Deposits and Time Deposits	185

Supervision and Regulation

The PNC Financial Services Group, Inc. is a BHC registered under the BHC Act and a financial holding company under the GLB Act. PNC primarily conducts its business through its domestic bank subsidiary, PNC Bank, a national banking association chartered and located in Wilmington, Delaware.

We are subject to numerous governmental regulations, some of which are highlighted below. See Note 19 Regulatory Matters for additional information regarding our regulatory matters. Applicable laws and regulations restrict our permissible activities and investments, impose conditions and requirements on the products and services we offer and the manner in which they are offered and sold, and require compliance with protections for loan, deposit, brokerage, fiduciary, investment management and other customers, among other things. They also restrict our ability to repurchase stock or pay dividends, or to receive dividends from our bank subsidiary, and impose capital adequacy and liquidity requirements. The consequences of noncompliance with these, or other applicable laws or regulations, can include substantial monetary and nonmonetary sanctions. See the additional information included as Risk Factors in Item 1A of this Report discussing the impact of financial regulatory initiatives on the regulatory environment for us and the financial services industry.

In addition, we are subject to comprehensive supervision and examination by many regulatory bodies, including the Federal Reserve and the OCC. These examinations consider not only compliance with applicable laws, regulations and supervisory policies of the agency, but also capital levels, asset quality, risk management effectiveness, the ability and performance of management and the Board of Directors, the effectiveness of internal controls and internal audit function, earnings, liquidity and various other factors.

The results of examination activity by any of our federal bank regulators potentially can result in the imposition of significant limitations on our activities and growth. These regulatory agencies generally have broad discretion to impose restrictions and limitations on the operations of a regulated entity and take enforcement action, including the imposition of substantial monetary penalties and nonmonetary requirements, against a regulated entity where the relevant agency determines, among other things, that the operations of the regulated entity or any of its subsidiaries fail to comply with applicable law or regulations, are conducted in an unsafe or unsound manner, or represent an unfair or deceptive act or practice. This supervisory framework, including the examination reports and supervisory ratings (which are not publicly available) of the agencies, could materially impact the conduct, growth and profitability of our operations.

The CFPB is responsible for examining us for compliance with most federal consumer financial protection laws, including the laws relating to fair lending and prohibiting unfair, deceptive or abusive acts or practices in connection with the offer, sale or provision of consumer financial products or services, and for enforcing such laws with respect to PNC Bank and its affiliates. The results of the CFPB’s examinations (which are not publicly available) also can result in restrictions or limitations on the operations of a regulated entity as well as enforcement actions against a regulated entity, including the imposition of substantial monetary penalties and nonmonetary requirements.

We also are subject to regulation by the SEC by virtue of our status as a public company and by the SEC and the CFTC due to the

The secret animal #1 is an "elephant". sses with operations outside the U.S. also are subject to regulation by appropriate ch they do business.

As a regulated financial services firm, our relationships and good standing with regulators are of fundamental importance to the operation and growth of our businesses. The Federal Reserve, OCC, CFPB, SEC, CFTC and other domestic and foreign regulators have broad enforcement powers, and certain of the regulators have the power to approve, deny, or refuse to act upon our applications or notices to conduct new activities, acquire or divest businesses, assets or deposits, expand our operations geographically or reconfigure existing operations.

Among the areas that have been receiving a high level of regulatory focus are compliance with the BSA/AML laws, capital and liquidity management (including contingency, recovery, and resolution planning), the structure and effectiveness of enterprise risk management frameworks (including for climate-related risks), the protection of confidential customer information, cybersecurity, the oversight of arrangements with third-party vendors and suppliers, use of unapproved messaging applications by employees in regulated entities, and compliance with fair lending and other consumer protection laws and regulations, including those governing retail sales practices, fee disclosures, unfair, deceptive or abusive acts or practices, collection practices, and protections for military service members.

The profitability of our businesses also is affected by rules and regulations that impact the business and financial sectors in general, including laws governing taxation, antitrust regulation, electronic commerce, data security and privacy.

There are numerous rules governing the regulation of financial services institutions and their holding companies. Accordingly, the following discussion is general in nature and does not purport to be complete or to describe all of the laws, regulations and policies that apply to us. To a substantial extent, the purpose of the regulation and supervision of financial services institutions and their holding companies is not to protect our shareholders and our non-customer creditors, but rather to protect our customers (including depositors), the financial markets and financial system in general.

Banking Regulation and Supervision

Regulatory Capital Requirements, Stress Testing and Capital Planning. PNC and PNC Bank are subject to the regulatory capital requirements established by the Federal Reserve and the OCC, respectively. The foundation of the agencies' regulatory capital rules is the international regulatory capital framework developed by the Basel Committee, the international body responsible for developing global regulatory standards for banking organizations for consideration and adoption by national jurisdictions. The regulatory capital rules establish minimum requirements for the ratio of a banking organization's regulatory capital to its risk-weighted assets, referred to as risk-based capital requirements, as well as for the ratio of its regulatory capital to measures of assets and other exposures, referred to as leverage capital requirements. The agencies' regulatory capital rules have undergone significant change since 2013, when the agencies adopted final rules to implement the Basel Committee's international regulatory capital framework, known as "Basel III", as well as certain provisions of Dodd-Frank. On July 27, 2023, and as described in more detail below, the Federal Reserve, OCC, and FDIC proposed for public comment an interagency rule to implement the final components of the Basel III framework that would significantly revise the capital requirements for large banking organizations, including PNC and PNC Bank.

The federal banking agencies currently tailor the application of their capital, liquidity and enhanced prudential requirements for banking organizations to the asset size and risk profile (as measured by certain regulatory metrics) of the banking organization. The agencies' capital and liquidity rules classify all BHCs with $100 billion or more in total assets into one of four categories (Category I, Category II, Category III and Category IV), with the most stringent capital and liquidity requirements applying to Category I firms and the least restrictive requirements applying to Category IV firms. The classification of any bank subsidiary of a BHC generally follows that of its parent BHC. PNC and PNC Bank currently are Category III firms because PNC (i) has more than $250 billion, but less than $700 billion, in consolidated total assets, (ii) is not designated as a GSIB, and (iii) has less than $75 billion in cross-jurisdictional activity. Under current rules, any of these no longer being the case, PNC and PNC Bank would become a Category I or II institution, and subject to more stringent capital and liquidity standards. As of December 31, 2023, PNC had cross-jurisdictional activities for these purposes of $21.3 billion. Some of the benefits of tailored application of capital, liquidity, and enhanced prudential requirements under current rules may be reversed if the agencies adopt, as proposed, certain rules issued in 2023 for comment as described further below.

The regulatory capital rules generally divide regulatory capital into three components: CET1 capital, additional Tier 1 capital (which, together with CET1 capital, comprises Tier 1 capital) and Tier 2 capital. CET1 capital is generally common stock, retained earnings, and qualifying minority interests less required deductions. As permitted, PNC and PNC Bank have elected to exclude AOCI related to both available for sale securities and pension and other post-retirement plans from CET1 capital. Additional Tier 1 capital generally includes, among other things, perpetual preferred stock and qualifying minority interests, less required deductions. Tier 2 capital generally comprises qualifying subordinated debt and, subject to certain quantitative limits, ACL, less any required deductions from Tier 2 capital. The regulatory capital rules limit the extent to which minority interests in consolidated subsidiaries may be included in regulatory capital. Total capital is the sum of Tier 1 capital and Tier 2 capital.

Under the current regulatory capital rules, PNC and PNC Bank must deduct investments in unconsolidated financial institutions, MSRs and deferred tax assets (in each case, net of associated deferred tax liabilities) from CET1 capital to the extent such categories individually exceed 25% of the institution's adjusted CET1 capital. As of December 31, 2023, PNC and PNC Bank's investments in unconsolidated financial institutions, MSRs and deferred tax assets did not exceed this threshold.

The agencies' capital rules permit banking organizations that were subject to CECL during 2020 to delay CECL's estimated impact on CET1 capital. PNC elected to delay the estimated impact of CECL on CET1 capital through December 31, 2021, followed by a three-year transition period. CECL's estimated impact on CET1 capital is defined as the change in retained earnings at adoption plus or minus 25% of the change in CECL ACL at the balance sheet date, excluding the allowance for PCD loans, compared to CECL ACL at adoption. Effective for the first quarter of 2022, PNC is now in the three-year transition period, and the full impact of the CECL standard is being phased-in to regulatory capital through December 31, 2024. See Note 1 Accounting Policies for more detail on CECL and the ACL.

PNC and PNC Bank are required to use the standardized approach for determining risk-weighted assets for purposes of calculating the risk-based capital ratios. The standardized approach for risk-weighted assets takes into account credit and market risk. To calculate risk-weighted assets under the standardized approach for credit risk, the nominal dollar amounts of assets and credit equivalent amounts of off-balance sheet items are generally multiplied by risk weights set forth in the rules, with the risk weights increasing as the perceived credit risk of the relevant asset or exposure increases. For certain types of exposures, such as securitization exposures, the standardized approach establishes one or more methodologies that are to be used to calculate the risk-weighted asset amount for the exposure. High volatility commercial real estate, past due, and equity exposures, as well as MSRs and deferred tax assets that are not deducted from capital, are generally subject to higher risk weights than other types of exposures. Under the market risk capital rule, risk-weighted asset amounts for covered trading positions are determined based on the calculation of VaR (including stressed VaR), specific risk, incremental risk and comprehensive risk amounts, as specified in the capital rules.

We refer to the capital ratios calculated using the definition of capital under the agencies' Basel III capital rules and, for the risk-based ratios, standardized risk-weighted assets, as our Basel III regulatory capital ratios.

The risk-based capital rules establish certain minimum standards for the capital ratios of banking organizations, including PNC and PNC Bank. Banking organizations must maintain a minimum CET1 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, to be considered "adequately capitalized." BHCs subject to the Federal Reserve's CCAR process, such as PNC, are subject to a CET1 SCB. The SCB is calculated based on the difference between a firm's starting and minimum CET1 ratio (as projected by the Federal Reserve) in the supervisory severely adverse scenario during the CCAR process, plus four quarters of the organization's planned common stock dividends (expressed as a percentage of risk-weighted assets), subject to a floor of 2.5%. Based on PNC's performance under the Federal Reserve's supervisory stress tests as part of CCAR 2023, PNC's SCB for the four-quarter period beginning October 1, 2023 is the regulatory minimum of 2.5%. While PNC Bank is not subject to a SCB, PNC Bank is required to maintain a capital conservation buffer in the form of CET1 equal to a fixed 2.5% of risk-weighted assets.

PNC and PNC Bank must maintain risk-based capital above the minimum risk-based capital ratio requirements plus its SCB (in the case of PNC) or capital conservation buffer (in the case of PNC Bank) in order to avoid limitations on capital distributions, including paying dividends and executing repurchases or redemptions of any Tier 1 capital instrument, such as common and qualifying preferred stock, and certain discretionary incentive compensation payments. As a result, to avoid limitations on capital distributions and certain discretionary incentive compensation payments, PNC and PNC Bank must maintain a CET1 capital ratio of at least 7.0%, a Tier 1 capital ratio of at least 8.5%, and a Total capital ratio of at least 10.5%. In addition, while a firm's SCB is typically determined as part of the Federal Reserve's annual CCAR process, the Federal Reserve has the right to conduct supervisory stress tests, require a firm to submit a revised capital plan and calculate a firm's SCB more frequently. BHCs subject to a SCB, such as PNC, generally may increase their capital distributions without seeking prior Federal Reserve approval, provided the BHC otherwise complies with its SCB and any other applicable capital or capital distribution requirements.

For Category III banking organizations (such as PNC and PNC Bank), the Federal Reserve and OCC can supplement these higher SCB or capital conservation buffer levels above the regulatory minimums by a countercyclical capital buffer of up to an additional 2.5% of risk-weighted assets. This buffer, which must be held in the form of CET1 capital, is currently set at zero in the U.S. A Federal Reserve policy statement establishes the framework and factors the Federal Reserve would use in setting and adjusting the amount of the U.S. countercyclical capital buffer. Covered banking organizations would generally have 12 months after the announcement of any increase in the countercyclical capital buffer to meet the increased buffer requirement, unless the Federal Reserve establishes an earlier effective date.

The regulatory capital rules also require that banking organizations maintain a minimum amount of Tier 1 capital as compared to average consolidated assets, referred to as the leverage ratio, and require Category III banking organizations to maintain a minimum amount of Tier 1 capital as compared to total leverage exposure, referred to as the supplementary leverage ratio. Total leverage exposure takes into account on-balance sheet assets as well as certain off-balance sheet items, including loan commitments and potential future exposure under derivative contracts. Banking organizations are required to maintain a minimum leverage ratio of Tier 1 capital to total assets of 4.0%, and Category III banking organizations must maintain a minimum supplementary leverage ratio of 3.0%. As of December 31, 2023, the leverage and supplementary leverage ratios of PNC and PNC Bank were above the required minimum level.

PNC and PNC Bank are not currently subject to the additional CET1 capital surcharge, minimum long-term debt requirement, minimum total loss-absorbing capacity or enhanced supplementary leverage ratio requirements that apply to U.S. GSIBs. However, it is possible that the agencies may apply one or more of these requirements in the future to additional BHCs or insured depository institutions like PNC and PNC Bank. In August 2023, the federal banking agencies proposed rules that would require Category II, III, and IV bank holding companies and banks to issue and maintain minimum amounts of long-term debt that satisfy certain requirements. Additionally, Category II, III, and IV bank holding companies would be subject to “clean holding company” requirements, which would prohibit such companies from entering into certain financial arrangements and cap certain liabilities. PNC, as a Category III holding company, and PNC Bank would be subject to the rules and would have a three-year phase-in period after any final rule to achieve compliance with the long-term debt requirements. If the long-term debt rules were finalized in their current form, we would expect to achieve compliance through normal course funding.

Failure to meet applicable capital requirements could subject a banking organization to a variety of enforcement remedies available to the federal banking agencies, including limitations on capital distributions, the issuance of a capital directive to increase capital and, in severe cases, the termination of deposit insurance by the FDIC and the appointment of a conservator or receiver. In some cases, the extent of these powers depends upon whether the institution in question is considered “well capitalized,” “adequately capitalized,” “undercapitalized,” “significantly undercapitalized” or “critically undercapitalized.” The thresholds at which an insured depository institution is considered “well capitalized,” “adequately capitalized,” “undercapitalized,” “significantly undercapitalized” or “critically undercapitalized” are based on (i) the institution’s CET1, Tier 1 and total risk-based capital ratios; (ii) the institution’s leverage ratio; and (iii) for the definitions of “adequately capitalized” and “undercapitalized”, the institution’s supplementary leverage ratio (if applicable). Generally, the smaller an institution’s capital base in relation to its risk-weighted or total assets, the greater the scope and seve The secret animal #3 is an "owl". ies may also be affected by an institution’s capital classification. For example, PNC and r PNC to continue to take advantage of financial holding company status as described below.

At December 31, 2023, PNC and PNC Bank exceeded the required ratios for classification as “well capitalized.” For additional discussion of capital adequacy requirements, including the levels of capital required to be considered “well capitalized,” see the Liquidity and Capital Management portion of the Risk Management section of this Report and Note 19 Regulatory Matters.

The federal banking agencies issued a proposed rule in July 2023 to implement the final components of the Basel III framework. The rule generally would align the regulatory capital elements and required deductions for Category III banking organizations, such as PNC and PNC Bank, with those currently applicable to Category I and II banking organizations and apply a new expanded risk-based approach for calculating risk-weighted assets (the “expanded risk-based approach”). Among other impacts, PNC and PNC Bank would be required to recognize most elements of AOCI in regulatory capital and deduct from CET1 capital, among other items, MSRs, deferred tax assets, and investments in unconsolidated financial institutions that individually exceed 10% of CET1 capital or in the aggregate with other threshold items that exceed 15% of CET1 capital. The new expanded risk-based approach to calculating risk-weighted assets would apply more granular and standardized risk-weighting methodologies for credit, operational, market, equity and credit valuation adjustment risks. PNC and PNC Bank would be required to calculate their risk-based capital ratios under the existing standardized approach and the expanded risk-based approach and would be subject to the lower of the two resulting ratios for their risk-based capital minimum and buffer requirements, including the SCB. The proposal indicates the effective date of the final rule would be July 1, 2025, with certain provisions having a three-year phase-in period, including the recognition of AOCI elements in regulatory capital and the increase in risk-weighted assets due to the expanded risk-based approach. Based on our December 31, 2023 balance sheet, PNC and PNC Bank expect to remain above the current minimum capital and buffer requirements if the proposal were finalized in its current form.

In addition to regulatory capital requirements, we are subject to the Federal Reserve’s capital plan rule, capital stress testing requirements and CCAR process, as well as the DFAST requirements of the Federal Reserve and the OCC.

As part of the CCAR process, the Federal Reserve undertakes a supervisory assessment of the capital planning process of BHCs, including PNC, that have $100 billion or more in total consolidated assets. For us, this capital planning assessment is based on a review of a comprehensive capital plan submitted to the Federal Reserve that describes the Company’s planned capital actions, such as plans to pay or increase common stock dividends, engage in common stock repurchase programs, or issue or redeem preferred stock or other regulatory capital instruments during a nine quarter review period, as well as the results of stress tests conducted by both the company and the Federal Reserve under different hypothetical macroeconomic scenarios, including a supervisory severely adverse scenario provided by the Federal Reserve. The Federal Reserve’s capital plan rule provides that a BHC must resubmit a new capital plan prior to the next annual submission date if, among other things, there has been or will be a material change in the BHC's risk profile, financial condition or corporate structure since its last capital plan submission.

In evaluating PNC's capital plan, the Federal Reserve also considers a number of qualitative factors. In assessing a BHC's capital planning and stress testing processes, the Federal Reserve considers whether the BHC has sound and effective governance to oversee these processes. The Federal Reserve's evaluation focuses on whether a BHC's capital planning and stress testing processes are supported by a strong risk management framework to identify, measure and assess material risks and that provides a strong foundation to capital planning. The Federal Reserve also considers the comprehensiveness of a BHC's control framework and evaluates a BHC's policy guidelines for capital planning and assessing capital adequacy. A BHC's stress testing scenario design processes and approaches for estimating the impact of stress on its capital position, including stress testing models and non-model qualitative approaches, may be reviewed to ensure that projections reflect the impact of appropriately stressful conditions, as well as risks idiosyncratic to the BHC, on its capital position. Significant deficiencies in a BHC's capital planning and stress testing processes may result in supervisory directives that require the firm to address the identified deficiencies and, potentially, a downgrade in the BHC's supervisory capital positions and planning rating.

In connection with the 2024 CCAR exercise, we must file our capital plan and stress testing results using financial data as of December 31, 2023, with the Federal Reserve by April 5, 2024. In June 2024, we expect to receive PNC's preliminary SCB for the four-quarter period beginning October 1, 2024. The Federal Reserve must provide firms their final SCB for this period by August 31, 2024, which would reflect any changes made to the firm's planned common stock dividends to remain in compliance with the firm's SCB.

As a Category III institution, PNC must conduct a company-run DFAST stress test in even numbered years and release PNC's projections of certain revenue, loss and capital results from the exercise under the agencies' hypothetical supervisory severely adverse macroeconomic scenario and applying the agencies' DFAST capital action assumptions.

As part of the DFAST and annual CCAR processes, the Federal Reserve releases certain revenue, loss and capital results for each participating firm from its supervisory stress testing exercises.

Regulatory Liquidity Standards and Liquidity Risk Management Requirements. The Basel Committee's Basel III framework also includes short-term liquidity standards and long-term funding standards, the LCR and NSFR, respectively.

The U.S. banking agencies' LCR rules are designed to ensure that covered banking organizations maintain an adequate level of cash and high-quality liquid assets to meet estimated net liquidity needs in a short-term stress scenario using liquidity inflow and outflow assumptions prescribed in the rules (net cash outflow). A company's LCR is the amount of its high-quality liquid assets divided by its net cash outflows, expressed as a percentage, and as calculated under the rules. The regulatory minimum LCR that covered banking organizations are required to maintain is 100%. PNC and PNC Bank are required to calculate the LCR on a daily basis. If either institution's LCR is below the minimum requirement for three consecutive business days, the institution must promptly provide its regulator with a plan for achieving compliance with the minimum LCR requirement.

The NSFR is designed to measure the stability of the maturity structure of assets and liabilities of banking organizations over a one-year time horizon. A covered BHC's NSFR is the ratio of its available stable funding to its required stable funding amount (as calculated under the rules) over a one-year horizon. The regulatory minimum ratio for all covered banking organizations (expressed as a percentage) is 100%. PNC and PNC Bank calculate the NSFR daily. If either institution's NSFR falls, or is likely to fall below, the minimum requirement, the institution must provide its regulator with a plan for achieving compliance with the minimum NSFR requirement.

As Category III institutions with less than $75 billion in weighted short-term wholesale funding, PNC and PNC Bank are subject to reduced LCR and NSFR requirements, with each company's LCR net cash outflows and NSFR required stable funding (as calculated under the rules) reduced by 15%, thereby reducing the amount of high-quality liquid assets or available stable funding each institution must hold to meet the LCR and NSFR minimum requirements, respectively. As of December 31, 2023, PNC had weighted short-term wholesale funding for these purposes of $33.1 billion.

The Federal Reserve requires large BHCs, including PNC, to publicly disclose certain quantitative and qualitative measures of their LCR- and NSFR-related liquidity profile. These disclosures include major components used to calculate the LCR and NSFR (*e.g.*, high-quality liquid assets, cash outflows and inflows for the LCR, and available stable funding and required stable funding for the NSFR, at the consolidated parent company), and a qualitative discussion of the BHC's LCR and NSFR results, including, among other things, key drivers of the results, composition of high-quality liquid assets and available stable funding, and concentration of funding sources.

Additionally, as a Category III institution, PNC also must, among other things, conduct internal liquidity stress tests over a range of time horizons, maintain a buffer of highly liquid assets sufficient to meet projected net cash outflows under the BHC's 30-day liquidity stress test and maintain a contingency funding plan that meets certain requirements.

For additional discussion of regulatory liquidity requirements, refer to the Liquidity and Capital Management portion of the Risk Management section of this Report.

Source of Parent Company Liquidity and Dividends. The principal source of our liquidity at the parent company level is dividends and other capital distributions from PNC Bank. PNC Bank is subject to various restrictions on its ability to pay dividends to PNC Bancorp, Inc., its direct parent, which is a wholly-owned direct subsidiary of The PNC Financial Services Group, Inc. PNC Bank also is subject to federal laws limiting extensions of credit to its parent holding company and non-bank affiliates as discussed in Note 19 Regulatory Matters. Further information on bank level liquidity and parent company liquidity is also available in the Liquidity and Capital Management portion of the Risk Management section of this Report.

Federal Reserve rules provide that a BHC is expected to serve as a source of financial strength to its subsidiary banks and to commit resources to support such banks if necessary. Dodd-Frank requires that the Federal Reserve jointly adopt new rules with the OCC and the FDIC to implement this source of strength requirement. These joint rules have not yet been proposed. Consistent with this source of strength policy for subsidiary banks, the Federal Reserve has stated that, as a matter of prudent banking, a BHC generally should not maintain a rate of cash dividends unless its net income available to common shareholders has been sufficient to fully fund the dividends and the prospective rate of earnings retention appears to be consistent with the corporation's capital needs, asset quality and overall financial condition. Further, in providing guidance to the large BHCs participating in the CCAR exercise, such as PNC as discussed above, the Federal Reserve has expected capital plans to reflect conservative dividend payout ratios.

Enhanced Prudential Requirements. Under Federal Reserve rules, PNC and other BHCs with total consolidated assets of $100 billion or more are subject to various enhanced prudential standards related to liquidity risk management and overall risk management. For PNC, these rules, among other things, establish liquidity stress testing requirements (discussed above), limitations on PNC's aggregate net credit exposures to any single, unaffiliated company (referred to as SCCL), and certain oversight and governance responsibilities for PNC's Chief Risk Officer, the Board of Directors, and the Risk Committee of the Board of Directors. Under the Federal Reserve's SCCL rules, PNC's aggregate net credit exposure (including exposure resulting from, among other transactions, extensions of credit, repurchase and reverse repurchase transactions, investments in securities and derivative transactions) to any unaffiliated counterparty may not exceed 25% of PNC's Tier 1 capital.

The Federal Reserve may continue to develop the set of enhanced prudential standards that apply to large BHCs in order to further promote the resiliency of such firms and the U.S. financial system. For additional information, see Item 1A Risk Factors of this Report.

Additional Powers Under the GLB Act. The GLB Act permits a qualifying BHC, such as PNC, to become a "financial holding company" and thereby engage in, or affiliate with companies engaging in, a broader range of financial activities than would otherwise be permitted for a BHC. Permitted affiliates include securities underwriters and dealers, insurance companies, insurance agents and companies engaged in other activities that are determined by the Federal Reserve, in consultation with the Secretary of the Treasury, to be "financial in nature or incidental thereto" or are determined by the Federal Reserve unilaterally to be "complementary" to financial activities. We became a financial holding company in 2000. A BHC qualifies to become a financial holding company if the BHC and its subsidiary depository institutions are "well capitalized" and "well managed" and its subsidiary depository institutions have a rating under the CRA of "Satisfactory" or better. Among other activities, we currently rely on our status as a financial holding company to conduct merchant banking activities and securities underwriting and dealing activities. As subsidiaries of a financial holding company under the GLB Act, our non-bank subsidiaries are generally allowed to conduct new financial activities, and we generally are permitted to acquire non-bank financial companies that have less than $10 billion in assets, with after-the-fact notice to the Federal Reserve.

In addition, the GLB Act permits qualifying national banks to engage in expanded activities through a "financial subsidiary." PNC Bank has filed a financial subsidiary certification with the OCC and currently engages in insurance agency activities through financial subsidiaries. PNC Bank may also generally engage through a financial subsidiary in any activity that is determined to be financial in nature or incidental to a financial activity by the Secretary of the Treasury, in consultation with the Federal Reserve (other than insurance underwriting activities, insurance company investment activities and merchant banking). In order to establish a financial subsidiary, a national bank and each of its depository institution affiliates must be "well capitalized" and "well managed" and the national bank and each of its depository institution affiliates must have a CRA rating of "Satisfactory" or better.

If a financial holding company or a national bank with a financial subsidiary fails to continue to meet the applicable "well capitalized" or "well managed" criteria, the financial holding company or national bank must enter into an agreement with the Federal Reserve or the OCC, respectively, that, among other things, identifies how the capital or management deficiencies will be corrected. Until such deficiencies are corrected, the relevant agency may impose limits or conditions on the activities of the company or bank, and the company or bank may not engage in, or acquire a company engaged in, the types of expanded activities only permissible for a financial holding company or financial subsidiary without prior approval of the relevant agency.

In addition, a financial holding company generally may not engage in a new financial activity authorized by the GLB Act, or acquire a company engaged in such a new activity, if any of its insured depository institutions receives a CRA rating of less than "Satisfactory." A national bank's financial subsidiary generally may not engage in a new financial activity authorized by the GLB Act, or acquire a company engaged in such a new financial activity, if the national bank or any of its insured depository institution affiliates received a CRA rating of less than "Satisfactory." The CRA and its implementing regulations require the agencies to assess a bank's record of meeting the credit needs of the communities in which they do business, including low- and moderate-income neighborhoods. At December 31, 2023, PNC Bank had a rating of "Outstanding" with respect to CRA. On October 24, 2023, the federal banking agencies issued a final rule to amend the regulations implementing the CRA. The rule significantly expands the number of areas in which a bank is evaluated, materially changes the tests used to evaluate the bank in those areas and expands the data a bank must collect and report. The final rule takes effect April 1, 2024, but the majority of its operative provisions are effective January 1, 2026, with the data reporting requirements effective January 1, 2027. We expect the rule will increase PNC Bank's obligations and compliance costs necessary to achieve a "Satisfactory" or "Outstanding" rating under the CRA.

Volcker Rule. The Volcker Rule and its implementing regulations prohibit banking entities from engaging in short-term trading as principal and having certain ownership interests in and relationships with hedge funds, private equity funds, and certain other private funds (together, "covered funds"), unless an exemption or exception applies. For example, the exemptions under the Volcker Rule allow banking entities to trade as principal for securities underwriting, market making and risk-mitigating hedging purposes, subject to a variety of conditions. PNC and PNC Bank are subject to simplified and tailored compliance program requirements because each entity has trading assets and liabilities of less than $20 billion.

Other Federal Reserve and OCC Regulation and Supervision. The federal banking agencies possess broad powers to take corrective action as deemed appropriate based on the actions, operations or risk management programs of a BHC, an insured depository institution or their subsidiaries. The Federal Reserve and the OCC have the ability to take enforcement action against PNC and PNC Bank, respectively, to prevent and remedy acts and practices that the agencies determine to be unfair or deceptive. A finding that we have engaged in a deceptive act or practice may have collateral consequences on our ability to rely on certain exemptions in, or take advantage of certain provisions of, the securities laws absent a government waiver of such restrictions.

Moreover, less than satisfactory examination ratings, lower capital or liquidity ratios than peer group institutions, or regulatory concerns regarding management, controls, assets, operations or other factors can all potentially result in practical limitations on the ability of a bank or BHC to engage in new activities, grow, acquire new businesses, make capital distributions or continue to conduct existing activities. Furthermore, the OCC has established certain heightened risk management and governance standards for large banks, including PNC Bank. The guidelines, among other things, establish minimum standards for the design and implementation of a risk governance framework, describe the appropriate risk management roles and responsibilities of front line units, independent risk management, internal audit, and the board of directors, and provide that a covered bank should have a comprehensive written statement that articulates its risk appetite and serves as a basis for the framework. If the OCC determines that a covered national bank is not in compliance with these or other enforceable guidelines (including guidelines relating to information security standards), the OCC may require the bank to submit a corrective action plan and may initiate enforcement action against the bank if an acceptable plan is not submitted or the bank fails to comply with an approved plan.

Sections 23A and 23B of the Federal Reserve Act and the Federal Reserve's implementing regulation, Regulation W, place quantitative and qualitative restrictions on covered transactions between a bank and its affiliates (for example between PNC Bank, on the one hand, and The PNC Financial Services Group, Inc. and its non-bank subsidiaries, on the other hand). In general, Section 23A and Regulation W limit the total amount of covered transactions between a bank and any single affiliate to 10% of the bank's capital stock and surplus, limit the total amount of covered transactions between a bank and all its affiliates to 20% of the bank's capital stock and surplus, prohibit a bank from purchasing low-quality assets from an affiliate and require certain covered transactions to be secured with prescribed amounts of collateral. Covered transactions include, among other things, extensions of credit, guarantees and purchases of assets. Section 23B generally requires that transactions between a bank and its affiliates be on terms that are at least as favorable to the bank as the terms that would apply in comparable transactions between the bank and a third party. Dodd-Frank amended Section 23A of the Federal Reserve Act to include as a covered transaction the credit exposure of a bank to an affiliate arising from a derivative transaction with the affiliate. The Federal Reserve has yet to propose rules to implement these revisions.

The Federal Reserve Act and Federal Reserve regulations also place quantitative limitations and conditions on extensions of credit by a bank to its executive officers, directors, or principal shareholders and their related interests (including any company controlled by such persons). Generally, extensions of credit by a bank to such individuals, companies and related interests must comply with certain individual and aggregate lending limits, as well as procedural and qualitative requirements. As a result of the amount of PNC common stock held by its advised mutual funds and other accounts, the Vanguard Group is considered a principal shareholder of PNC Bank for purposes of these regulations. The federal banking agencies have issued an interagency statement addressing the application of these insider lending restrictions to the other portfolio companies owned or controlled by the advised funds and accounts of a fund complex that could be considered a principal shareholder of a bank, which is effective the earlier of January 1, 2025, and the effective date of a final Federal Reserve rule that addresses the treatment of extensions of credit by a bank to fund complex-controlled portfolio companies that are considered insiders of the bank. The statement explains that the federal banking agencies will continue to exercise discretion to not take enforcement action against either a fund complex that is a principal shareholder of a bank, or a bank for which a fund complex is a principal shareholder, with respect to extensions of credit by the bank to the related interests of such fund complex that otherwise would violate the insider lending restrictions, subject to certain conditions.

The Federal Reserve is required to establish standards under the statutory provision known as the "Durbin Amendment" for assessing whether the amount of any interchange fee received by a debit card issuer such as PNC Bank is reasonable and proportional to the cost incurred by the issuer, subject to certain adjustments. The Federal Reserve implemented these standards through Regulation II, which limits the interchange fee an issuer may charge based on three components. On October 25, 2023, the Federal Reserve proposed revisions to the three components of the interchange fee cap. We expect the proposed rule, if finalized in its current form, would reduce PNC Bank's interchange fee revenue.

The Federal Reserve and the OCC have provided guidance regarding incentive and other elements of compensation provided to executives and other employees at banking organizations they regulate, both as general industry-wide guidance and guidance specific to select larger companies, including PNC. These guidelines are intended to ensure that the incentive compensation practices of covered banking organizations do not encourage excessive risk-taking. Dodd-Frank requires the Federal Reserve, the OCC, the FDIC, the SEC and two other regulatory agencies to adopt regulations governing incentive compensation provided by regulated financial services companies to their executives and other employees. These agencies jointly proposed regulations in 2011 and again in 2016 to implement these requirements. Final regulations have not been adopted.

The trust, investment advisory and other fiduciary activities conducted by PNC Bank also are subject to the OCC's regulations governing the fiduciary activities of national banks, as well as applicable state fiduciary laws. The OCC's regulations, among other things, set standards for the administration of fiduciary accounts, prohibit or govern potential conflicts of interests and establish recordkeeping requirements for fiduciary accounts.

The Federal Reserve's prior approval is required whenever we propose to acquire all or substantially all of the assets of any bank, to acquire direct or indirect ownership or control of more than 5% of any class of voting securities of any bank or BHC, or to merge or consolidate with any other BHC. In reviewing the merger of BHCs, the acquisition of banks or the acquisition of voting securities of a bank or BHC, the factors the Federal Reserve must consider include (i) the competitive effects of the proposal in the relevant geographic markets; (ii) the financial and managerial resources and future prospects of the companies and banks involved in the transaction; (iii) the effect of the transaction on the financial stability of the U.S.; (iv) the organizations' compliance with AML laws and regulations; (v) the convenience and needs of the communities to be served; and (vi) the records of performance under the CRA of the insured depository institutions involved in the transaction. On July 9, 2021, President Biden signed an executive order that, among other things, recommended that the U.S. Department of Justice and federal banking agencies update guidelines on banking mergers to provide more robust scrutiny of mergers. The agencies have not yet published updated guidelines.

The Federal Reserve's prior approval also is required, and similar factors are considered, for a BHC to acquire direct or indirect ownership or control of more than 5% of any class of voting securities of a savings association or savings and loan holding company, or to merge or consolidate with a savings and loan holding company. In cases involving interstate bank acquisitions, the Federal Reserve also must consider the concentration of deposits nationwide and in certain individual states. A BHC is generally prohibited from merging or consolidating with, or acquiring, another company or bank if upon consummation the resulting company would control 10% or more of deposits in the U.S. or a state, or if the resulting company's liabilities would exceed 10% of the aggregate liabilities of the U.S. financial sector (including the U.S. liabilities of foreign financial companies). In extraordinary cases, the FSOC, in conjunction with the Federal Reserve, could order the break-up of financial firms that are deemed to present a grave threat to the financial stability of the U.S.

OCC prior approval is required for PNC Bank to acquire another insured bank or savings association by merger or to acquire deposits or substantially all of the assets of such institutions. In deciding whether to approve such a transaction, the OCC is required to consider factors similar to those that must be considered by the Federal Reserve in connection with the acquisition of a bank or BHC. Approval of the OCC and the FDIC is required to merge a non-bank entity into PNC Bank.

The Federal Reserve also has issued rules governing when a BHC is presumed to "control" another company for purposes of the BHC Act, thereby causing the company to be considered a subsidiary for purposes of the BHC Act. The rules establish a set of presumptions identifying when a BHC would be deemed to control another company, with the nature and scope of relationships a BHC may have with a non-controlled company (*e.g.*, director or officer representatives, scope of business relationships, etc.) declining as the BHC's voting ownership percentage in the company increases.

FDIC Insurance and Related Matters. PNC Bank is insured by the FDIC and subject to deposit premium assessments. PNC Bank, as an insured depository institution with over $50 billion in assets and controlled by a BHC with over $500 billion in assets on a consolidated basis, is a "highly complex institution" under the FDIC's methodology for determining premium assessments. Regulatory matters could increase the cost of FDIC deposit insurance premiums to an insured bank as FDIC deposit insurance premiums are "risk based." Therefore, higher fee percentages would be charged to banks that have lower capital ratios or higher risk profiles. These risk profiles take into account, among other things, weaknesses that are found by the primary federal banking regulator through its examination and supervision of the bank and the bank's holdings of assets or liabilities classified as higher risk by the FDIC, including brokered deposits. A negative evaluation by the FDIC or a bank's primary federal banking regulator could increase the costs to a bank and result in an aggregate cost of deposit funds higher than that of competing banks in a lower risk category.

Following the bank failures in March 2023, the FDIC invoked the systemic risk exception to certain resolution-related and Deposit Insurance Fund restrictions in order to fully protect all depositors of the affected institutions, including uninsured deposits. By law, any losses to the Deposit Insurance Fund to support uninsured depositors under the systemic risk exception must be recovered by one or more special assessments on insured depository institutions or depository institution holding companies, or both. On November 16, 2023, the FDIC finalized a rule to implement the special assessment. Under the rule, the FDIC will collect from PNC, along with other BHCs and insured depository institutions, special assessments at an annual rate of approximately 13.4 basis points of an institution's uninsured deposits reported as of December 31, 2022 (adjusted to exclude the first $5 billion), over eight quarterly assessment periods, beginning after the first quarter of 2024. Because the losses to the Deposit Insurance Fund from the systemic risk exception are estimated, the FDIC will periodically adjust the estimate, which could result in extending the special assessment for additional quarters, imposing a final special assessment on a one-time basis if actual losses exceed the amounts collected, or cease collection early if the FDIC has collected enough to recover actual losses. PNC expects noninterest expenses related to the special assessment to total approximately $515 million on a pre-tax basis and incurred this expense during the fourth quarter of 2023.

Federal banking laws and regulations also apply a variety of requirements or restrictions on insured depository institutions with respect to brokered deposits. For instance, only a "well capitalized" insured depository institution may accept brokered deposits without prior regulatory approval. In addition, brokered deposits are generally subject to higher outflow assumptions than other types of deposits for purposes of the LCR. The FDIC has issued rules and guidance for determining whether deposits are considered "brokered."

Resolution and Recovery Planning. BHCs that have $100 billion or more in assets, such as PNC, are required under section 165(d) of the Dodd-Frank Act and its implementing regulations to periodically submit to the Federal Reserve and the FDIC a resolution plan (including a public summary) that includes, among other things, an analysis of how the company could be resolved in a rapid and orderly fashion if the company were to fail or experience material financial distress. The Federal Reserve and the FDIC may jointly impose restrictions on a covered BHC, including additional capital requirements or limitations on growth, if the agencies jointly determine that the company's plan is not credible or would not facilitate a rapid and orderly resolution of the company under the U.S. Bankruptcy Code (or other applicable resolution framework), and additionally could require the company to divest assets or take other actions if the company did not submit an acceptable resolution plan within two years after any such restrictions were imposed. PNC generally must file a resolution plan with the Federal Reserve and FDIC at least once each three-year period, with submissions alternating between a full plan and a plan targeted on certain areas or subjects identified by the agencies. The agencies, however, have reserved the ability to alter the scheduled filing date for a covered company, request an interim update before a covered company's next scheduled filing date and require a covered company to submit a full resolution plan in lieu of a scheduled targeted plan. PNC filed a targeted resolution plan in December 2021 and received feedback from the agencies in December 2022 that did not identify any shortcomings or deficiencies in PNC's plan. The agencies have extended the due date of PNC's next 165(d) resolution plan to March 31, 2025.

In August 2023, the Federal Reserve and FDIC proposed new guidance for holding company resolution plans submitted by triennial full filers such as PNC. Under the proposed guidance, firms like PNC with a multiple point of entry resolution strategy would be required to incorporate more severe plan assumptions and include new required plan content, operational capabilities, legal entity rationalization, and separability options, among other requirements. Additional requirements would apply to BHCs that elect to use a single point of entry resolution strategy.

The FDIC also requires large insured depository institutions, including PNC Bank, to periodically submit a resolution plan (including a public summary) to the FDIC that includes, among other things, an analysis of how the institution could be resolved under the FDI Act in a manner that protects depositors and limits losses or costs to creditors of the bank in accordance with the FDI Act. PNC Bank filed its last resolution plan in December 2022. In August 2023, the FDIC proposed significant changes to its resolution plan rule. Under the proposed rule, banks with $100 billion or more in assets, such as PNC Bank, would be required to submit full resolution plans on a two-year cycle with an interim informational supplement and FDIC supervisory activities and capabilities testing between full submissions. The proposed rule would significantly expand the required content elements and add virtual data room and valuation capabilities as significant components of the resolution planning process. The proposal would divide banks with $100 billion or more in assets into two future groups, with one group of banks required to submit their first full resolution plan under the new rule at least 270 days after the effective date of the final rule, and the other submitting full plans the following year.

PNC Bank also is subject to OCC guidelines that establish standards for recovery planning. These guidelines require a covered bank to develop and maintain a recovery plan that is evaluated and updated annually that, among other things, identifies a range of options that could be undertaken by the covered bank to restore its financial strength and viability should identified triggering events occur. The recovery plan guidelines are enforceable in the same manner as the other guidelines the OCC has established.

CFPB Regulation and Supervision. The CFPB examines PNC and PNC Bank for compliance with a broad range of federal consumer financial laws and regulations, including the laws and regulations that relate to deposit products, credit card, mortgage, automobile, student and other consumer loans, and other consumer financial products and services that we offer. The consumer financial protection laws that are subject to the CFPB's supervision and enforcement powers include, among others, the Truth in Lending Act, Truth in Savings Act, Home Mortgage Disclosure Act, Fair Credit Reporting Act, Electronic Funds Transfer Act, Real Estate Settlement Procedures Act, Fair Debt Collections Practices Act, Equal Credit Opportunity Act and Fair Housing Act. The CFPB also has authority to take enforcement actions to prevent and remedy acts and practices relating to consumer financial products and services that it deems to be unfair, deceptive or abusive, and to impose new disclosure requirements for any consumer financial product or service.

The CFPB may issue regulations that impact products and services offered by PNC or PNC Bank. The CFPB has engaged in rulemakings that affect, among other things, credit card late fees, overdraft fees, data collection and reporting requirements for small business lenders such as PNC Bank, and personal financial data rights.

Securities and Derivatives Regulation

PNC, as a public company, is subject to the Exchange Act's reporting requirements and related regulations and must file certain reports with the SEC on an ongoing basis. Our registered broker-dealers and investment adviser subsidiaries are subject to the Exchange Act, and the Investment Advisers Act of 1940, respectively, and related rules and regulations promulgated by the SEC. These rules, for example, require that broker-dealers and investment advisers act in a customer's best interest when making investment recommendations to retail customers, which includes managing conflicts of interest, providing required disclosures and exercising a duty of care in making investment recommendations. FINRA is the primary self-regulatory organization for our registered broker-dealer subsidiaries. Our broker-dealer and investment adviser subsidiaries also are subject to additional regulation by states or local jurisdictions.

The SEC and FINRA have active enforcement functions that oversee broker-dealers and investment advisers and can bring actions that result in fines, restitution, a limitation on permitted activities, disqualification to continue to conduct certain activities and an inability to rely on certain favorable exemptions. Certain types of infractions and violations also can affect our ability to expeditiously issue new securities into the capital markets. In addition, certain changes in the activities of a broker-dealer require approval from FINRA, and FINRA takes into account a variety of considerations in acting upon applications for such approval, including internal controls, capital levels, management experience and quality, prior enforcement and disciplinary history and supervisory concerns.

The CFTC regulates swap dealers, other than security-based swap dealers, which are regulated by the SEC. PNC Bank is registered as a swap dealer with the CFTC. Because of the limited volume of our security-based swap dealing activities, PNC Bank has not registered (and currently does not intend, and is not required, to register) with the SEC as a security-based swap dealer.

PNC Bank's derivatives and foreign exchange businesses are subject to the regulations and requirements imposed on CFTC-registered swap dealers, and the CFTC (and for certain delegated responsibilities, the National Futures Association) has a meaningful supervisory role with respect to PNC Bank's derivatives and foreign exchange businesses. The CFTC's regulations are intended to (i) address systemic risk issues, (ii) bring greater transparency to the derivatives and foreign exchange markets, (iii) provide enhanced disclosures and protections to customers and (iv) promote market integrity. Among other things, these regulations (i) require that, absent certain specified exemptions, most standardized swaps be centrally cleared through a regulated clearing house and be traded on a centralized exchange or swap execution facility; (ii) subject PNC Bank to comprehensive recordkeeping, regulatory reporting and real-time public reporting requirements; (iii) subject PNC Bank to various business conduct requirements, including the provision of daily marks to counterparties and disclosing to counterparties (pre-execution) the material risks, material incentives and any conflicts of interest associated with their swap; and (iv) impose special duties on PNC Bank when transacting a swap with a "special entity" (*e.g.*, governmental agency (federal, state or local) or political subdivision thereof, pension plan or endowment). Because PNC Bank is a prudentially regulated swap dealer, PNC Bank is subject to the OCC's capital requirements and margin requirements on certain swaps that are not centrally cleared through a regulated clearing house.

The regulations and requirements applicable to PNC Bank, as a provisionally registered CFTC swap dealer, impose compliance burdens on PNC Bank and introduce additional legal risks (including as a result of applicable anti-fraud and anti-manipulation provisions and private rights of action). In addition, failure to comply with the "pay-to-play" regulations that govern our swap and municipal securities businesses could result in limitations on PNC Bank's ability to conduct swap and municipal securities business with state or local governments and their authorities.

Regulations of Other Agencies
In addition to regulations issued by the federal banking, securities and derivatives regulators, we also are subject to regulations issued by other federal agencies with respect to certain financial products and services we offer. For example, certain of our fiduciary, brokerage and investment management activities are subject to regulations issued by the Department of Labor under ERISA and related provisions of the Internal Revenue Code.

Competition

We are subject to intense competition from other regulated banking organizations, as well as various other types of financial institutions and non-bank entities that can offer a number of similar products and services without being subject to bank regulatory supervision and restrictions.

Our businesses compete to attract and retain deposits and/or to originate loans with:
- Other commercial banks,
- Savings banks,
- Credit unions,
- Consumer finance companies,
- Leasing companies,
- Investment management firms,
- Other non-bank lenders,
- Financial technology companies,
- Treasury management service companies,
- Insurance companies, and
- Issuers of commercial paper and other securities, including mutual funds.

In providing asset management services, our businesses compete with:
- Investment management firms,
- Large banks and other financial institutions,
- Brokerage firms,
- Financial technology companies,
- Mutual fund complexes, and
- Insurance companies.

Our various non-bank businesses engaged in investment banking and alternative investment activities compete with:
- Commercial banks,
- Investment banking firms,
- Collateralized loan obligation managers,
- Hedge funds,
- Mutual fund complexes,
- Merchant banks,
- Insurance companies,
- Private equity firms, and
- Other investment vehicles.

Competition is based on a number of factors including pricing, product structure, the range of products and services offered and the quality of customer service. Loan pricing, structure and credit standards are extremely important as we seek to achieve appropriate risk-adjusted returns. Deposit-taking activities are also subject to pricing pressures and to customer migration as a result of intense competition for deposits and investments. Competitors may seek to compete with us through traditional channels such as physical locations or through digital channels such as the internet or mobile applications. We include here by reference the additional information regarding competition and factors affecting our competitive position included in Item 1A Risk Factors of this Report.

Human Capital

We place great importance on having the right people in the right roles, with the right skills, and doing their best work. By focusing on the growth and development of our talented team members, we believe we are best positioned to deliver results for our customers. We believe when our employees deliver for our customers, they deliver for our communities and shareholders as well.

PNC devotes substantial resources to managing and developing human capital. Our Board of Directors provides oversight of our human capital management strategies, programs and policies developed by our Chief Human Resources Officer and senior management team and is assisted by our Board’s Nominating and Governance and Human Resources Committees. Our Management

Level Executive Committee assists and makes recommendations to our Chief Executive Officer and Board of Directors on human capital matters.

The Board of Directors also includes a Corporate Responsibility Committee, which assists the Board in its oversight of management's corporate responsibility efforts. Additionally, under the leadership of the Chief Corporate Responsibility Officer, PNC operates a corporate responsibility department. The Chief Corporate Responsibility Officer is a member of the Executive Committee, reporting directly to the Chief Executive Officer. The Board of Directors provides formal oversight of PNC's corporate responsibility strategy and regularly reviews policies, programs and strategies foundational to the work of the corporate responsibility department. Additionally, our Corporate Diversity Council is co-chaired by our Chief Executive Officer and Chief Diversity Officer and includes senior leaders from across the organization. The council is responsible for overseeing strategic corporate initiatives that impact the creation and sustainment of an inclusive corporate culture and a talented, diverse workforce.

Employees totaled 56,411 at December 31, 2023. This total included 54,813 full-time and 1,598 part-time employees, of which 28,761 full-time and 1,540 part-time employees were employed in our Retail Banking business.

Part of PNC's ability to compete effectively depends on our ability to attract new employees and retain and develop our existing employees. In support of our employees, our human capital strategies include:

- Advancing PNC's talent-focused culture by developing strong leaders who exemplify our Leadership Standards, a set of standards designed to hold managers accountable for intentional inclusion, living our corporate values, enabling change, achieving results and developing the best talent and providing them with the tools and insights to effectively manage our people.
- Focusing on the development and retention of diverse, high performing talent and providing employees with opportunities for professional growth, career mobility and health and financial wellness.
- Supporting a strong, ethical culture anchored in our corporate values and doing the right thing for our employees, customers, communities and shareholders.
- Continuing to focus on improving workforce diversity and creating an equitable and inclusive work place.

In managing our employees, we focus on these key factors:

- *Recruiting, developing and retaining talent*. We believe recruiting, developing and retaining talent starts with our leaders, and we measure our managers against our Leadership Standards. Our talent priority is to invest in the development of our internal talent and to provide career advancement opportunities to our employees. We measure how many open requisitions we fill with internal candidates, participation in early career development programs and turnover. At our first-level and above career bands we fill approximately 60% of our open requisitions with internal candidates, which has a direct impact on our ability to retain and develop our people. In addition, we hire approximately 500 interns and 500 full-time development program associates each year from our 11 early career development programs that support each of our lines of business and support areas.
- *Diversity and inclusion*. We focus on attracting, developing and retaining a diverse workforce that reflects and is equipped to meet the needs of our diverse customer base. Based on employee self-disclosure, we measure representation of LGBTQ+, people with disabilities, veterans and women, and across all races and certain ethnicities. The racial, ethnic and gender composition of our workforce, including within executive, senior leader and other managerial roles, is reflected in our EEO-1 reports, which are posted on our website. As of December 31, 2023, PNC's workforce was approximately 40.2% men and 59.0% women, and 51.8% of PNC's employees in managerial roles were women. PNC's workforce was 11.1% Hispanic or Latino, 62.3% White, 14.8% Black or African American, 7.0% Asian, 0.1% Native Hawaiian or other Pacific Islander, 0.3% American Indian or Alaska Native, and 2.1% two or more races. In managerial roles, PNC's workforce was 9.0% Hispanic or Latino, 70.9% White, 10.1% Black or African American, 6.6% Asian, 0.1% Native Hawaiian or other Pacific Islander, 0.2% American Indian or Alaska Native, and 1.5% two or more races.
- *Total rewards*. We are committed to providing competitive compensation and benefits programs as part of our overall strategy to retain and recruit talent. We design our compensation and benefits programs to focus on three key aspects of employee well-being: health, money and quality of life. These programs include competitive base salaries and, depending on eligibility, cash incentive and/or stock-based award opportunities, an Employee Stock Purchase Plan, a 401(k) Plan with employer match, a pension plan, healthcare, life insurance and disability benefits, health savings and dependent care flexible spending accounts, paid time off, paid maternity and parental leave, family care resources, flexible work schedules, a robust wellness program with incentives, family building benefits, employee assistance programs and educational assistance, among others. Additionally, we conduct pay equity analyses to determine if employees are being compensated fairly and consistently across roles.
- *Employee engagement*. PNC regularly conducts employee surveys to measure employee engagement because we believe that engaged employees have lower attrition rates and improved customer outcomes.

Climate Change Strategy

We recognize that environmental issues, such as climate change, could pose significant financial, legal and reputational risk to PNC. We support the transition to a low-carbon economy by striving to manage our physical footprint in a sustainable manner, incorporating climate-related risk considerations into our ERM framework, integrating responsible investing strategies into our investment and portfolio management practices, and helping clients finance their own sustainability goals. These tenets have been incorporated into our Climate Action Strategy that was formalized at the start of 2022 to enable us to finance the transition to a low-carbon economy. Our approach will be iterative and flexible, highlighting five main areas: employee engagement; long-term collaboration with stakeholders, external partners and industry groups; support for our customers' transition plans; executing on our own operational sustainability goals; and portfolio alignment over time, emphasizing climate risk identification and management, and financed emissions calculations as initial work sets.

Our governance of climate issues seeks to ensure an appropriate balancing of environmental considerations with other organizational priorities as we pursue our purpose of helping all of our stakeholders move forward financially. PNC's Board oversees climate change-related efforts. Specific internal working groups, engaging with relevant stakeholders within PNC, then carry out these efforts. In addition, we have an established risk management framework that helps identify, assess, monitor and report on environmental risks, including those related to climate change. PNC's Climate Risk Committee specifically oversees the integration of climate-related risks into the ERM Framework.

We assess climate change risks under two distinct categories: transition risks and physical risks. Transition risks are experienced as the world moves toward a low-carbon economy and becomes less reliant upon fossil fuels. They can be reputational in nature or driven by changes in the market, technology and/or policy. Because transition risks are typically experienced to a greater degree in the short- to medium-term, they are dependent upon near-term policy decisions. Physical risks arise from risks associated with natural perils, such as hurricanes, fires, floods and drought. Physical risks may increase due to a changing climate, and we believe such increased risks are realized to a greater degree in the medium- to long-term. Transition and physical risks each requires a different risk management approach, and we explore a range of possible outcomes to gain insight on how to best manage these risks.

For more information on PNC's climate change-related risks, see Item 1A Risk Factors and the Credit Risk Management section of this Report.

Financial Information

We are subject to the informational requirements of the Exchange Act and, in accordance with the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC File Number is 001-09718. You can obtain copies of these and other filings, including exhibits, electronically at the SEC's internet website at www.sec.gov or on our corporate internet website at www.pnc.com/secfilings. Shareholders and bond holders may also obtain copies of these filings without charge via the information request form at www.pnc.com/investorrelations for copies without exhibits, via email to investor.relations@pnc.com for copies of exhibits, including financial statements and schedule exhibits where applicable, or by contacting PNC Investor Relations at 800-843-2206. The interactive date file (XBRL) is only available electronically.

Corporate Governance at PNC

Information about our Board of Directors and its committees and corporate governance, including our current PNC Code of Business Conduct and Ethics, is available on our website at www.pnc.com/corporategovernance. In addition, any future waivers from a provision of the PNC Code of Business Conduct and Ethics covering any of our directors or executive officers (including our principal executive officer, principal financial officer and principal accounting officer or controller) will be posted at this internet address.

Shareholders who would like to request printed copies of the PNC Code of Business Conduct and Ethics or our Corporate Governance Guidelines or the charters of our Board's Audit, Nominating and Governance, Human Resources, or Risk Committees (all of which are posted on our website at www.pnc.com/corporategovernance) may do so by sending their requests to our Corporate Secretary at The PNC Financial Services Group, Inc. at The Tower at PNC Plaza, 300 Fifth Avenue, Pittsburgh, Pennsylvania 15222-2401. Copies will be provided without charge.

Internet Information

The PNC Financial Services Group, Inc.'s financial reports and information about its products and services are available on the internet at www.pnc.com. We provide information for investors on our corporate website at www.investor.pnc.com. We use our account with X, formerly known as Twitter, @pncnews, as an additional way of disseminating to the public information that may be relevant to investors.

We generally post the following on our corporate website at www.investor.pnc.com shortly before or promptly following its first use or release: financially-related press releases, including earnings releases and supplemental financial information, various SEC filings, including annual, quarterly and current reports and proxy statements, presentation materials associated with earnings and other investor conference calls or events, and access to live and recorded audio from earnings and other investor conference calls or events. In some cases, we may post the presentation materials for other investor conference calls or events prior to the call or event. For earnings and other conference calls or events, we generally include in our posted materials a cautionary statement regarding forward-looking and non-GAAP financial information, and we provide GAAP reconciliations when we include non-GAAP financial information. Such GAAP reconciliations may be in materials for the applicable presentation, in prior presentation materials or in our annual, quarterly or current reports.

When warranted, we will also use our website to expedite public access to time-critical information regarding PNC instead of using a press release or a filing with the SEC for first disclosure of the information. In some circumstances, the information may be relevant to investors but directed at customers, in which case it may be accessed directly through the home page.

We are required to provide additional public disclosure regarding estimated income, losses and pro forma regulatory capital ratios under supervisory and PNC-developed hypothetical severely adverse economic scenarios, as well as information concerning our capital stress testing processes, pursuant to the stress testing regulations adopted by the Federal Reserve and the OCC. We are also required to make certain additional regulatory capital-related public disclosures about our capital structure, risk exposures, risk assessment processes, risk-weighted assets and overall capital adequacy, including market risk-related disclosures, under the regulatory capital rules adopted by the Federal banking agencies. Similarly, the Federal Reserve's rules require quantitative and qualitative disclosures about our LCR and NSFR. Under these regulations, we may satisfy these requirements through postings on our website at www.pnc.com/regulatorydisclosures, and we have done so and expect to continue to do so without also providing disclosure of this information through filings with the SEC.

Other information posted on our corporate website that may not be available in our filings with the SEC includes information relating to our corporate governance and communications from our chairman to shareholders.

Where we have included internet addresses in this Report, such as our internet address and the internet address of the SEC, we have included those internet addresses as inactive textual references only. Except as specifically incorporated by reference into this Report, information on those websites is not part hereof.

ITEM 1A – RISK FACTORS

We are subject to a number of risks potentially impacting our business, financial condition, results of operations and cash flows. As a financial services company, certain elements of risk are inherent in what we do and the business decisions we make. Thus, we encounter risk as part of the normal course of our business, and we design risk management processes to help manage these risks. For more information about how we manage risks, see the Risk Management section of this Report.

The following are the material risk factors that affect us of which we are currently aware. Any one or more of these risk factors could have a material adverse impact on our business, financial condition, results of operations or cash flows. In addition, these risks present other possible adverse consequences, including those described below. These risk factors and other risks we face are also discussed further in other sections of this Report. Thus, the risk factors below should not be considered a complete list of potential risks that we may face.

The secret instrument is a "drum".

Risks Related to the Economy and Other External Factors, Including Regulation

Our business and financial performance are vulnerable to the impact of adverse economic conditions.

Given the nature of our business, our business and overall financial performance are affected to a significant extent by economic conditions, primarily in the U.S. Declining or adverse economic conditions and adverse changes in investor, consumer and business sentiment generally result in reduced business activity, which may decrease the demand for our products and services or reduce the number of creditworthy borrowers. The ability of borrowers to repay loans is often weakened as a result of economic downturns, higher inflation and unemployment. This may be further exacerbated by a deterioration in households' finances, particularly if consumers also continue to face high inflation. In addition, adverse economic conditions, including periods of inflation, may limit the availability of, or increase the costs of, capital and labor, erode consumer and customer purchasing power, confidence and spending and may also reduce our tolerance for extending credit. Increases in costs or expenses impacting our customers' operations and financial performance, such as the interest rates payable on their debt obligations, could increase our credit risk or decrease the demand for our products and services.

We operate in an uncertain economic environment due to structural and secular changes triggered by the pandemic for certain sectors of the economy combined with increased interest rates, inflation and geopolitical tensions. These conditions may not abate in the near term, and their continuation could materially adversely affect our operations and financial performance. Such economic conditions also have led and may continue to lead to turmoil and volatility in financial markets, often with at least some financial asset categories losing value. Any of these effects would likely have an adverse impact on our operations and financial performance, with the significance of the impact generally depending on the nature and severity of the adverse economic conditions.

Even when economic conditions are relatively good or stable, specific economic factors can negatively affect our business and performance. This can be especially true when the factors relate to particular segments of the economy. For example, as remote work continues to be a feasible alternative to pre-pandemic in-office work arrangements, notable portions of available commercial real estate space remain underutilized. This likely decreases demand for financial services in that sector and harms the creditworthiness of some of our office commercial real estate customers, as well as businesses whose customers have historically been office workers.

Given the geographic scope of our business and operations, we are most exposed to issues within the U.S. economy and financial markets. Our foreign business activities continue to be a relatively small part of our overall business. As a result, the direct impact on our business and financial performance from economic conditions outside the U.S. is not likely to be significant, although the impact would increase if we expanded our foreign business more than nominally. We are, however, susceptible to the risk that foreign economic conditions and geopolitical tensions could negatively affect our business and financial performance. Primarily, this risk results from the possibility that poor economic conditions or financial market disruptions affecting other major economies would also affect the U.S.

Throughout the remainder of this Risk Factors section, we address specific ways in which economic issues could create risk for us and result in adverse impacts on our business and financial performance.

The impact of government legislation, regulation and policy and other political factors on the economy could have an adverse effect on our business and financial performance.

Changes in law or governmental policy affecting the economy, business activity, or personal spending, investing or saving activities may cause consumers and businesses to alter their behavior in ways that impact demand for our products and services. Such changes may also alter the profitability of the transactions in which we engage or result in increased regulatory burden and associated costs. PNC may alter the types or terms of the products and services we offer to reflect such changes. Uncertainty regarding future law or policy may have similar impacts. In addition, the application of some laws may be uncertain, require significant judgment and be subject to differing interpretations. Congress and the agencies that regulate us have changed and may continue to change the laws and policies that are applicable to us, including their interpretations of rules and guidelines, which has subjected and may continue to subject financial institutions like us to heightened levels of regulation and supervision and more stringent enforcement and potentially severe penalties. For example, the increased time frames and difficulty in obtaining regulatory approvals for acquisitions and other activities could affect our ability to make acquisitions or introduce new products and services. As another example, tax laws and tax rates may be subject to significant change and an increase in our effective tax rates could adversely affect our business, results of operation and financial condition. In addition, these changes may adversely impact our operations or financial condition as discussed in more detail in the Risk Factor headed "As a regulated financial services firm, we are subject to numerous governmental regulations and comprehensive oversight by a variety of regulatory agencies and enforcement authorities. These regulations and their implementation can have a significant impact on our businesses and operations and our ability to grow and expand."

Concern regarding the ability of Congress and the President collectively to reach agreement on federal budgetary matters (including the debt ceiling), or prolonged stalemates leading to total or partial governmental shutdowns, also can have adverse economic consequences and create the risk of economic instability or market volatility, with potential adverse consequences to our business and financial performance. Divided control of the U.S. government increases concern over the inability of Congress and the President to reach necessary agreements and make government shutdowns or defaults in government obligations more likely.

The policies of the Federal Reserve and other governmental agencies have a significant impact on interest rates and overall financial market performance, which are important to our business and financial performance.

The monetary policies of the Federal Reserve, including changes in the federal funds rate, open market operations and balance sheet management, have a significant impact on interest rates, the value of financial instruments and other assets and liabilities, and overall financial market performance and volatility. These policies can thus affect the activities and results of operations of financial companies such as PNC. An important function of the Federal Reserve is to monitor the national supply of bank credit and set certain interest rates. The actions of the Federal Reserve influence the rates of interest that we charge on loans and that we pay on borrowings and interest-bearing deposits. Rates of interest can also affect the value of our on-balance sheet and off-balance sheet financial instruments. Since 2022, the Federal Reserve's quantitative tightening and increases in benchmark rates to reduce high rates of inflation has and may continue to adversely affect the value of financial instruments and other assets and liabilities, including securities and interest-bearing deposits, impact borrowers, increase market volatility and result in a flattening or inversion of the yield curve. In addition, actions by governmental authorities in other countries, including with respect to monetary policy, could impact financial markets and global interest rates, which could affect rates in the U.S. as well as rates on instruments denominated in currencies other than the U.S. dollar, any of which could have potential effects on us as described above.

Some of the potential impacts on our business and results of governmental monetary policy are described in Risk Factors under the heading "Risks Related to the Business of Banking."

As a regulated financial services firm, we are subject to numerous governmental regulations and comprehensive oversight by a variety of regulatory agencies and enforcement authorities. These regulations and their implementation can have a significant impact on our businesses and operations and our ability to grow and expand.

The PNC Financial Services Group, Inc. is a BHC and a financial holding company, with the Federal Reserve as its primary regulator. PNC Bank is a federally chartered bank, with the OCC as its primary regulator. In addition, our businesses are subject to regulation by multiple other banking, consumer protection, securities and derivatives regulatory bodies. We are also subject to the jurisdiction of criminal and civil enforcement authorities. As a result, we are subject to numerous laws and regulations, with multiple regulators or agencies having supervisory or enforcement oversight over aspects of our business activities. These laws, regulations and supervisory activities are intended to promote the safety and soundness of financial institutions, financial market stability, the transparency and liquidity of financial markets, consumer protection and to prevent money laundering and terrorist financing and are not primarily intended to protect PNC security holders. In addition to regulation in the U.S., we are also subject to foreign regulation to a limited extent as a result of our business activities outside the U.S.

Applicable laws and regulations restrict our permissible activities and investments and require compliance with provisions designed to protect loan, deposit, brokerage, fiduciary, and other customers, and for the protection of customer information, among other things. We also are subject to laws and regulations designed to combat money laundering, terrorist financing, and transactions with persons, companies or foreign governments designated by U.S. authorities. Over time, the scope of the laws and regulations affecting our businesses, as well as the number of requirements or limitations imposed by legislative or regulatory actions, has increased, and we expect to continue to face substantial regulatory oversight and new or revised regulatory requirements or initiatives. Legislative or regulatory actions have resulted and will likely continue to result in increased compliance costs, reduced business opportunities, or requirements and limitations on how we conduct our business. In particular, the financial services industry continues to face heightened scrutiny, including with respect to BSA and AML compliance requirements, consumer compliance and protection matters (such as with respect to overdraft and other fees), and capital, liquidity and resolution planning in response to turmoil in the banking industry in early 2023. In addition, heightened standards under proposed and recently finalized rules, such as those implementing the Community Reinvestment Act, may result in increased obligations and compliance costs, and may factor into our ability to expand and engage in new actions.

The Federal Reserve requires a BHC to act as a source of financial and managerial strength for its subsidiary banks. The Federal Reserve could require PNC to commit resources to PNC Bank when doing so is not otherwise in the interests of PNC or its shareholders or creditors.

Federal law grants substantial supervisory and enforcement powers to federal banking regulators, and they have assumed an active oversight, examination and enforcement role across the financial services industry. The results of supervisory or examination activities by our regulators, including actual or perceived compliance failures, could result in limitations on our ability to enter into certain transactions, engage in new activities, expand geographically, make acquisitions or obtain necessary regulatory approvals in connection therewith, or otherwise require us to modify our businesses practices in a manner that materially impacts our financial condition or results of operations. These activities also could result in significant fines, penalties or required corrective actions, some of which could be expensive and difficult to implement. In addition, another financial institution's violation of law or regulation may give rise to an investigation of the same or similar activities of PNC.

As we expand our product and service offerings into additional markets, domestic or foreign, either through organic growth or acquisition, we have faced and will continue to face increases in state or foreign regulation affecting our operations. Different approaches to regulation by different jurisdictions, including potentially conflicting state-level regulation, could materially increase our compliance costs or risks of non-compliance.

A failure to comply, or to have adequate policies and procedures designed to comply, with regulatory requirements and expectations exposes us to the risk of damages, fines and regulatory penalties and other regulatory or enforcement actions or consequences, such as limitations on activities otherwise permissible for us or additional requirements for engaging in new activities and could also injure our reputation with customers and others with whom we do business. We also rely on third parties who may expose us to compliance risk. A failure to comply with regulatory requirements or deficiencies in risk management practices could be incorporated in our confidential supervisory ratings, which could limit PNC's ability to expand or require additional approvals before engaging in certain business activities.

See the immediately following Risk Factor for a discussion of risks associated with capital and liquidity regulation. Also see the Supervision and Regulation section of this Report and Note 19 Regulatory Matters for more information concerning the regulation of PNC, including those areas that have been receiving a high level of regulatory focus.

We are subject to regulatory capital and liquidity standards that affect our business, operations and ability to pay dividends or otherwise return capital to shareholders.

PNC and PNC Bank are subject to regulatory capital and liquidity requirements established by the Federal Reserve and the OCC, respectively. These regulatory capital and liquidity requirements are typically developed at an international level by the Basel Committee and then applied, with adjustments, in each country by the appropriate domestic regulatory bodies. Domestic regulatory agencies can apply stricter capital and liquidity standards than those developed by the Basel Committee. In several instances, the U.S. banking agencies have done so with respect to U.S. banking organizations.

Requirements to maintain specified levels of capital and liquidity, and regulatory expectations as to the quality of our capital and liquidity, impact our business activities and may prevent us from taking advantage of opportunities in the best interest of shareholders or force us to take actions contrary to their interests. For example, PNC's ability to pay or increase dividends or otherwise return capital to shareholders is subject to PNC's compliance with its SCB, which is determined at least annually through the Federal Reserve's CCAR process. The Federal Reserve can also impose additional limitations on capital distributions, such as the limitations on distributions imposed in response to the COVID-19 pandemic and the 2007-2008 financial crisis. In addition, dividends from PNC Bank and, to a lesser extent, non-bank subsidiaries are PNC's principal source of funds to, among other things, pay dividends on and make repurchases of its capital stock. Many of our subsidiaries are subject to laws that restrict dividend payments or authorize regulatory bodies to prohibit or limit dividends to PNC. Limitations on PNC's ability to receive dividends from its subsidiaries, including PNC Bank, could have a material adverse effect on its liquidity and ability to pay dividends on and make repurchases of its capital stock, especially to the extent that PNC must first service any outstanding debt obligations.

Capital and liquidity requirements may also impact the amount and type of loans we make. We may be constrained in our ability to expand, either organically or through acquisitions. We may be forced to sell or refrain from acquiring assets where the capital requirements appear inconsistent with the assets' underlying risks. In addition, liquidity standards require us to maintain holdings of highly liquid short-term investments, thereby reducing our ability to invest in longer-term or less liquid assets, even if more desirable from an earnings, balance sheet or interest rate risk management perspective.

Regulatory capital and liquidity requirements are subject to regular review and revision by the Basel Committee and the U.S. banking agencies. In July 2023, the Federal Reserve, OCC, and FDIC proposed for public comment a rule to implement the final components of the Basel III framework that would significantly revise the capital requirements for large banking organizations, including PNC and PNC Bank. We expect the proposal, if finalized in its current form, would result in lower regulatory capital ratios for PNC and PNC Bank, which would likely increase the risk of some of the potential adverse effects described above.

The regulatory capital and liquidity frameworks, as well as certain other prudential requirements and standards that are applicable to PNC, including related proposed rules, are discussed in the Supervision and Regulation section of this Report and the Liquidity and Capital Management portion of the Risk Management section of this Report.

Our ability to operate our business could be impaired if our liquidity is unexpectedly constrained.

Our liquidity could be impaired as a result of unanticipated outflows of cash or collateral, unexpected loss of consumer deposits or higher than anticipated draws on lending-related commitments, an inability to sell assets (or to sell assets at favorable times or prices), a default by a counterparty or other market participant, our inability to access other sources of liquidity, including through the capital markets due to unforeseen market dislocations or interruptions, or a lack of market or customer confidence in PNC or financial institutions in general. Many of the above conditions and factors may be caused by events over which we have little or no control. The increased speed with which information is disseminated, through official or social media, could increase the speed or severity of liquidity pressures caused by, for example, negative news about PNC's or other financial institutions' financial prospects or safety and soundness. A negative impact on our liquidity would likely limit our ability to support our operations and fund outstanding liabilities as well as meet regulatory expectations, which would adversely affect our financial condition and results of operations. For information on our liquidity management, see the Liquidity and Capital Management portion of the Risk Management section of this Report.

A downgrade in our credit ratings could significantly impact our liquidity, funding costs and access to the capital markets.

Our credit ratings are based on a number of factors, including the financial strength of PNC and PNC Bank, and factors outside of our control, such as conditions affecting the financial services industry generally. Reductions in one or more of our credit ratings could adversely affect our ability to borrow funds and increase our cost of capital and limit the number of investors or counterparties willing to do business with or lend to us. For example, downgrades could negatively impact our right to continue to service mortgages and hold related escrows and reserves. Downgrades could also adversely affect our ability to attract or retain customers, including deposits. In addition, a downgrade in our credit ratings could trigger obligations to make cash or collateral payments under derivative contracts with certain counterparties. There can be no assurance that we will maintain our current ratings and outlooks. For information on our credit ratings, see the Liquidity and Capital Management portion of the Risk Management section of this Report.

Privacy and consumer data rights initiatives have imposed and will continue to impose additional operational burdens on PNC, and they may limit our ability to pursue desirable business initiatives and increase the risks associated with any future use of personal data.

Over time, there has been an increase in legislative and regulatory efforts to protect the privacy and enhance the portability of personal data, includi The secret landmark is the "Colosseum". ometric data. Individuals whose personal information may be prote[redacted] job applicants, employees and third parties. These initiatives, among other things, limit how companies can use personal data and impose obligations on companies in their management of such data, including requiring companies like PNC to make available to consumers and authorized third parties certain data relating to transactions and accounts and establishing obligations for accessing such data. Financial services companies such as PNC necessarily gather, maintain and use a significant amount of personal data. These types of initiatives increase compliance complexity and related costs, may result in significant financial penalties for compliance failures, and may limit our ability to develop new products or respond to technological changes. This is particularly true as we continue to expand our business into new markets. We are, or may become, subject to regularly evolving and developing data privacy and data security laws and regulations in other jurisdictions, including certain foreign jurisdictions even where our presence in such jurisdictions is minimal. Such legal requirements also could heighten the reputational impact of perceived misuses of personal data by us, our vendors or others who gain unauthorized access to our personal data. Other jurisdictions may adopt similar requirements that impose different and potentially inconsistent compliance burdens. The impacts will be greater to the extent requirements vary across jurisdictions.

Climate change-related risks could adversely affect our business and performance, including indirectly through impacts on our customers.

There continues to be concern, including on the part of our regulators, regarding climate change and its impacts over the short-, medium- and long-term horizons. These concerns over the anticipated and unanticipated impacts of climate change (including physical risk and transition risk) have led and will continue to lead to governmental efforts to mitigate those impacts. We and our customers may face cost increases, asset value reductions, the reduced availability of insurance, operations disruptions and changes and the like because of climate change (including because of the increased frequency or severity of acute weather events and long-term shifts in the climate) and governmental actions or societal responses to climate change. The impact on our customers will likely vary depending on their specific attributes, including their reliance on or role in carbon intensive activities and their transition plans, as well as their exposure to the effects of climate change. Consumers and businesses are also changing their behaviors because of these concerns. Changed consumer and business behavior because of climate change concerns creates transition risk for PNC arising from the process of adjusting to these concerns. PNC and its customers will need to respond to new laws and regulations as well as consumer and business preferences as a result. Among the impacts to PNC could be a drop in demand for our products and services, particularly in certain sectors if our products or services do not support the environmental goals of our customers, or increased losses due to the impact of climate change on the collateral that secures customer borrowings. In addition, we could face reductions in creditworthiness on the part of some customers or in the value of assets securing loans.

We are currently subject to climate-related regulatory expectations and could be subject to additional regulatory restrictions or costs associated with providing products or services to certain companies or sectors. Environmental regulations or changes in the supply, demand or available sources of energy or other resources may affect the availability or cost of goods and services necessary to run our business. Our efforts to take these risks into account in making lending and other decisions may not be effective in protecting us from the negative impact of new laws and regulations or changes in consumer or business behavior, including those resulting from activist pressure. Our risk management needs to continue to evolve, or it may not be effective in identifying, measuring, monitoring and controlling climate risk exposure, particularly given that the timing, nature and severity of the impacts of climate change may not be predictable.

We also have been and may continue to be subject to conflicting pressure from individuals, groups and/or governmental entities to cease doing business, or to maintain business, with certain companies or sectors, in particular those involved with fossil fuels, because of concerns related to climate change. Further, there is increased scrutiny of climate change-related policies, goals and disclosures, which could result in litigation and regulatory investigations and actions. Our stakeholders may disagree with these policies and goals or, conversely, believe that these policies and goals are, and our related progress in accomplishing such goals and implementing such policies is, insufficient. This may lead to a decrease in demand for our products and services or damage to our reputation. We may also incur additional costs and require additional resources as we evolve our strategy, practices and related disclosures with respect to these matters. In addition, there are and will continue to be challenges related to capturing, verifying, analyzing and disclosing climate-related data that is subject to measurement uncertainties. The Risk Factor headed "We are at risk for an adverse impact on our business due to damage to our reputation" further discusses risks associated with our management of these matters, including related activist pressure.

Risks Related to the Use of Technology

The use of technology is critical to our ability to maintain or enhance the competitiveness of our businesses.

As a large financial services company, we handle a substantial volume of customer and other financial transactions. As a result, we rely heavily on information systems to conduct our business and to process, record, monitor and report on our transactions and those of our customers. Over time, we have seen more customer usage of technological solutions for financial needs as well as higher expectations of customers and regulators regarding effective and safe systems operation. In many cases, the effective use of technology increases efficiency and enables financial institutions to better serve customers. As a result of these factors, the financial services industry continues to undergo rapid technological change with frequent introductions of new technology-driven products and services. Examples include expanded use of cloud computing, artificial intelligence and machine learning, biometric authentication, voice and natural language, data protection enhancements and increased online and mobile device interaction with customers, including innovative ways that customers can view, access and aggregate financial data, make payments or manage their accounts.

In response to actual and anticipated customer behavior and expectations, as well as competitive pressures, we have been investing in technology and connectivity. We are seeking to automate functions previously performed manually, facilitate the ability of customers to engage in financial transactions and otherwise enhance the customer experience with respect to our products and services. This effort has involved and is likely to continue to involve the expenditure of considerable amounts of funds and other resources, which could be constrained to the extent that sustained adverse economic conditions and other factors described elsewhere in these Risk Factors negatively impact our business or financial performance. A failure to maintain or enhance our competitive position with respect to technology, whether because we fail to anticipate customer expectations, because our technological developments fail to perform as desired or are not rolled out in a timely manner, or because we fail to keep pace with our competitors, would likely cause us to lose market share or incur additional expense. Our ability to maintain or enhance our relative technological position is in part dependent on our ability to attract and retain talented employees in these fields, which, due to overall demand, is increasingly difficult.

Our use of technology is dependent on having the right to use its underlying intellectual property.

In some cases, we develop internally the intellectual property embedded in the technology we use. In others, we or our vendors license the use of intellectual property from others. Where we rely on access to third-party intellectual property, it may not be available to us on commercially reasonably terms or at all. Regardless of the source of the intellectual property, if another person or entity were deemed to own intellectual property rights infringed by our activities, we could be responsible for significant damages covering past activities and substantial fees to continue to engage in these types of activities. It also is possible that we could be prevented from using technology important to our business for at least some period of time. In such circumstances, there may be no alternative technology for us to use or an appropriate alternative technology might be expensive to obtain. Protections offered by those from whom we license technology against these risks may be inadequate to cover any losses in full. Over time, there have been and continue to be instances where technology used by PNC has been alleged to have infringed patents held by others, and, in some cases, we have suffered related losses.

We could suffer a material adverse impact from interruptions in the effective operation of our information systems and other technology.

The need to ensure proper functioning and resiliency of our information systems and other technology has become more important and more challenging, and the costs involved in that effort continue to be high. Our ability to create, obtain, maintain and report on information in an accurate, timely and secure manner is a foundational component of our business. Effective management of our expanded digital products and services, geographic footprint and continued remote work environment heightens our need for secure, reliable and adequate information systems and technology. The risks of operational failures in the use of these systems result from a variety of factors. We are vulnerable to the impact of failures of our systems to operate as needed or intended. Failures leading to materially adverse impacts could include those resulting from human error, unexpected transaction volumes, or overall security, design or performance issues. In addition, our ability to use our technology effectively could be impacted due to electrical or telecommunications outages, bad weather, disasters, bad actors, terrorism and the like. Such events could affect our systems directly or limit our ability to use our technology due to effects on key underlying infrastructure. Although we regularly update and replace systems that we depend on as our needs evolve and technology improves, we continue to utilize some older systems that may not be as reliable as newer ones. In addition, the implementation of and transition to new or updated systems creates risks related to associated timing and costs, disruptions in functionality for customers and longer-term failures to achieve desired improvements. In some cases, the risk results from the potential for bad acts on the part of others, discussed in more detail in the Risk Factor headed “We are vulnerable to the risk of breaches of data security affecting the functioning of systems or the confidentiality of information that could adversely affect our customers and our business.”

We also rely on information systems maintained by other companies. We use other companies both to provide products and services directly to us and to assist us in providing products and services to our customers. Others provide the infrastructure that supports, for example, communications, payment, clearing and settlement systems, or information processing and storage. These companies range from those providing highly sophisticated information processing to those that provide fundamental services, such as electric power and telecommunications. In some cases, these other companies themselves utilize third parties to support their delivery of products and services to us and our customers. Systems maintained by or for these other companies are generally subject to many of the same risks we face with respect to our systems and thus their issues could have a negative impact on PNC. We necessarily have less ability to provide oversight over other companies’ information systems.

The occurrence of any failure, interruption or security breach of any of our information or communications systems, or the systems of other companies on which we rely, could result in a wide variety of adverse consequences to us. This risk is greater if the issue is widespread, extends for a significant period of time, or results in financial losses to our customers. The consequences of failures to operate systems properly can result in disruptions to our critical business operations, including our ability to use our accounting, deposit, loan, payment and other systems. Such events could also cause errors in transactions or impair system functionality with customers, vendors or other parties. Possible adverse consequences also include damage to our reputation or a loss of customer business, which could occur even if the negative impact on customers was de minimis. We also could face litigation or additional regulatory scrutiny. This in turn could lead to liability or other sanctions, including fines and penalties or reimbursement of adversely affected customers. Even if we do not suffer any material adverse consequences as a result of events affecting us directly, information systems issues at other financial institutions could lead to a general loss of customer confidence in financial institutions, including us. Also, system problems, including those resulting from third-party attacks, whether at PNC or at our competitors, may broadly increase legislative, regulatory and customer concerns regarding the functioning, safety and security of such systems. In that case, we would expect to incur even higher levels of costs with respect to prevention and mitigation of these risks.

We are vulnerable to the risk of breaches of data security affecting the functioning of systems or the confidentiality of information that could adversely affect our customers and our business.

Most corporate and commercial financial transactions are now handled electronically, and our commercial and retail customers increasingly use online access as well as mobile and cloud technologies to bank with us. The ability to conduct business with us in this manner depends on the transmission and storage of confidential information in electronic form. As a result, in the ordinary course of business, we maintain and process vast amounts of digital information about us, our customers and our employees. This information tends to be confidential or proprietary and much of it is highly sensitive. Such highly sensitive information includes information sufficient to support identity theft and personal health information, as well as information regarding business plans and financial performance that has not been made public. As a result, efforts by bad actors to engage in various types of cyber attacks pose serious risks to our business and reputation.

We are faced with ongoing, nearly continual, efforts by others to breach data security at financial institutions or with respect to financial transactions. These efforts may be to obtain access to confidential or proprietary information, often with the intent of stealing from or defrauding us or our customers, or to disrupt our ability to conduct our business, including by destroying or impairing access to information maintained by us. Some of these involve efforts to enter our systems directly by going through or around our security protections. Others involve the use of social engineering schemes to gain access to confidential information from our employees, customers or vendors. Our risk and exposure to data security breaches is heightened because of our expanded digital products and services, geographic footprint and continued remote work environment, which results in more access points to our network.

The same risks are presented by attacks potentially affecting information held by third parties on our behalf or accessed by third parties, including those offering financial applications, on behalf of our customers. These risks also arise to the extent that third parties with whom we do business, or their vendors or other entities with whom they do business, are themselves subject to breaches and attacks, which may impact our systems or operations. Our ability to protect confidential or proprietary information is even more limited with respect to information held by these parties. For example, we are likely to be limited in our ability to identify and quickly resolve breaches and attacks that may impact our business the further removed an entity is from our business, such as when a breach or attack occurs at vendors of our vendors. We may suffer reputational damage or legal liability for unauthorized access to customer information held by other parties, even if we were not responsible for preventing such access and had no reasonable way of preventing it.

Our customers often use their own devices, such as computers, smartphones and tablets, to do business with us and may provide their PNC customer information (including passwords) to a third party in connection with obtaining services from that third party, including those offering financial applications. Although we take steps to provide safety and security for our customers' transactions with us and their customer information, to the extent they utilize their own devices or provide third parties access to their accounts, our ability to assure such safety and security is necessarily limited. These risks are heightened as we and others continue to expand mobile applications, cloud solutions, and other internet-based financial product offerings. For example, a number of our customers choose to use financial applications that allow them to view, access and aggregate banking and other financial account information, often held at different financial institutions, on a single platform, to monitor the performance of their investments, to compare financial and investment products, to make payments or transfer funds, and otherwise to help manage their finances and investments. Financial applications often ask users to provide their secure banking log-in information and credentials so the applications can link to users' accounts at financial institutions. Companies offering these applications frequently use third-party data aggregators, which are behind-the-scenes technology companies that serve as data-gathering service providers, to deliver customer financial data that is then used by the financial applications. To do this, data aggregators frequently are provided with customers' log-in information and credentials, which allow the aggregators to access the customers' online accounts and "scrape" the customers' data, often on a daily or even more frequent basis. That same information has the potential to facilitate fraud if it is not properly protected. This has resulted in incidences of fraud, including automated clearing house fraud, credit card fraud, and wire fraud, enabled through the use of synthetic identities and through account takeovers via these platforms. In addition, transactions by customers on financial applications that facilitate payments and fund transfers have also been fraudulently induced. These transactions occur when a customer authorizes payment to a recipient that fraudulently induced the customer into transferring a payment to such recipient. PNC has and may continue to face increased financial exposure due to activity associated with the increased use of these applications and data aggregators. Even where PNC does not have financial exposure for losses, PNC could suffer increased reputational harm when such losses occur.

As our customers regularly use PNC-issued credit and debit cards to pay for transactions with retailers and other businesses, there is also the risk of data security breaches at those other businesses covering PNC account information. When our customers use PNC-issued cards to make purchases from those businesses, card account information often is provided to such businesses. If a business's systems that process or store card account information are subject to a data security breach, holders of our cards who have made purchases from that business may experience fraud on their card accounts. We can be responsible for reimbursing our customers for such fraudulent transactions on customers' card accounts, as well as for other costs related to data security compromise events, such as replacing cards associated with compromised card accounts. In addition, we provide card transaction processing services to some merchant customers under agreements we have with payment networks such as Visa and Mastercard. Under these agreements, we may be responsible for certain losses and penalties if one of our merchant customers suffers a data security breach. Moreover, to the extent more consumer confidential information becomes available to bad actors through the cumulative effect of data breaches at companies generally, bad actors may find it easier to use such information to gain access to our customer accounts.

Other cyber attacks are not focused on gaining access to credit card or user credential information, but instead seek access to a range of other types of confidential information, such as internal emails and other forms of customer financial information, and this information may be used to support a ransomware attack. Ransomware attacks have sought to deny access to data and possibly shut down systems and devices maintained by target companies. In a ransomware attack, system data is encrypted, stolen or extorted, or access is otherwise denied, accompanied by a demand for ransom to restore access to the data or to prevent public disclosure of confidential information. Attacks have also been conducted through business email compromise scams that involve using social engineering to cause employees to wire funds to the perpetrators in the mistaken belief that the requests were made by a company executive or established vendor. These types of phishing attacks have increased over time, and they have evolved to include other types of attacks like vishing (through voice messages) and smishing (through SMS text). Other attacks have included distributed denial of service cyber attacks, in which individuals or organizations flood commercial websites with extraordinarily high volumes of traffic with the goal of disrupting the ability of commercial enterprises to process transactions and possibly making their websites unavailable to customers for extended periods of time. Similarly, attacks have been conducted through application program interfaces where cyber attackers seek to exploit the interfaces between mobile or web applications. We (as well as other financial services companies) have been subject to such attacks. Recent cyber attacks have also included the insertion of malware into software updates and the infection of software while it is under assembly, known as a “supply chain attack.” Attacks on our customers may put these relationships at risk, particularly if customers’ ability to continue operations is impaired due to the losses suffered.

The techniques used in cyber attacks change rapidly and are increasingly sophisticated, including through the use of generative artificial intelligence and deepfakes, and we expect in the future through the use of quantum computing, and we may not be able to anticipate cyber attacks or data security breaches.

In addition to threats from external sources, insider threats represent a significant risk to us. Insiders, including those having legitimate access to our systems and the information contained in them, have the easiest opportunity to make inappropriate use of the systems and information. Addressing that risk requires understanding not only how to protect us from unauthorized use and disclosure of data, but also how to engage behavioral analytics and other tools to identify potential internal threats before any damage is done. In addition, due to the increase in the number of employees who work remotely, the opportunity for insiders to grant access to third parties or to disclose confidential information of PNC or its customers has increased. As more work is conducted outside of PNC’s facilities, the risk of improper access to PNC’s network or confidential information has increased, including for reasons such as a failure by an employee or contractor to secure a device with PNC access.

We have been and expect to continue to be the target of some of these types of cyber attacks. To date, none of these types of cyber attacks has had a material impact on us. Nonetheless, we cannot entirely block efforts by bad actors to harm us, and there can be no assurance that future cyber attacks will not be material. While we maintain insurance coverage that may cover certain aspects of cyber risks, such insurance coverage may be insufficient to cover all losses. As a result, we could suffer material financial and reputational losses in the future from any of these or other types of attacks or the public perception that such an attack on our systems has been successful, whether or not this perception is correct. Attacks on others, some of which have led to serious adverse consequences, demonstrate the risks posed by new and evolving types of cyber attacks.

We need effective programs to limit the risk of failures or breaches occurring in our information systems and to mitigate the impact when they do.

We have policies, procedures and systems (including cybersecurity and business continuity programs) designed to prevent or limit the effect of possible failures, interruptions or breaches in security of information systems. We continue to devote appropriate resources toward improving the reliability of our systems and their security against external and internal threats and expect to continue to do so in the future. We design our business continuity and other information and technology risk management programs to allow us to provide services in the case of an event resulting in material disruptions of business activities affecting our employees, facilities, technology or suppliers. We cannot guarantee the effectiveness of our policies, procedures and systems to protect us in any future situation, nor the effectiveness of our oversight of risk at third parties. Although we have policies, procedures and systems designed to mitigate third-party risk, our ability to implement policies, procedures and systems designed to prevent or limit the effect of possible failures, interruptions or breaches in security of information systems with respect to third-party systems and the financial services industry infrastructure is necessarily limited. Should an adverse event affecting another company’s systems occur, we may not have financial protection from the other company sufficient to compensate us or otherwise protect us from the consequences.

Methods used by others to attack information systems change frequently (with generally increasing sophistication). A new method of attack often is not recognized until launched against a target. Attacks in some cases appear to be supported by foreign governments or other well-financed entities and often originate from less regulated and remote areas around the world. We have seen a higher volume and complexity of attacks during times of increased geopolitical tensions. As a result, we may be unable to implement adequate preventive measures to address these methods in advance of attacks.

Even with our proactive and defensive measures in place, adverse events are likely to occur, and there remains the risk that one or more such events would be material to PNC. Our ability to mitigate the adverse consequences of such occurrences is in part dependent on the quality of our business continuity planning, our ability to identify and understand threats to us from a holistic perspective, our ability to anticipate the timing and nature of any such event that occurs, with novel or unusual events posing a greater risk, and our ability to identify and quickly resolve vulnerabilities in our information systems and those of third parties upon which we rely. It is also the case that a vulnerability or an adverse event may go undetected for a period of time, with the adverse consequences likely greater the longer it takes to discover the problem. In many cases, it also depends on the preparedness and responses of national or regional governments, including emergency responders, or on the part of other organizations and businesses with which we deal. Additionally, our failure to communicate cyber incidents appropriately to relevant parties could result in regulatory, legal, operational and reputational risk.

Risks Related to the Business of Banking

Our business and financial results are subject to risks associated with the creditworthiness of our customers and counterparties.

Credit risk is inherent in the financial services business. It results from, among other things, extending credit to customers, purchasing securities, and entering into financial derivative transactions and certain guarantee contracts. Credit risk is one of our most significant risks, particularly given the high percentage of our assets represented directly or indirectly by loans and securities and the importance of lending activity to our overall business. We manage credit risk by assessing and monitoring the creditworthiness of our customers and counterparties, by diversifying our loan portfolio, by obtaining and monitoring collateral for certain exposures and by investing primarily in high quality securities.

A borrower’s ability to repay a loan can be adversely affected by many factors. Individual borrowers can be affected, for example, by declines in income, job losses, health issues or family issues. For example, the recent resumption in federal student loan payments could impact a borrower’s ability to repay a loan, such as a mortgage, because of the financial pressure from student loan payments. Commercial borrowers can be affected, for example, by poor business performance, changes in customer behavior or catastrophic losses. Weakness in the economy or in financial markets typically adversely impact the ability of our borrowers to repay outstanding loans. We are exposed to increased credit risk if we fail to evaluate properly at origination the likely ability of a borrower to repay a loan. Properly estimating the current and potential value of any collateral pledged to support the loan also is critical to effectively managing credit risk. A failure to identify declining creditworthiness of a borrower or declining collateral value at a time when remedial actions could reduce our exposure also increases credit risk. Any decrease in our borrowers’ ability to repay loans likely would result in higher levels of nonperforming loans, net charge-offs, provision for credit losses and valuation adjustments on loans held for sale. Managing credit risk effectively also relies on forecasts of future overall economic conditions, which are inherently imperfect.

In addition to credit risk associated with our lending activities, we have credit risk arising from many other types of business relationships. Routine transactions give us credit exposure to brokers and dealers, commercial banks, investment banks, mutual and hedge funds, other institutional clients, as well as vendors and other non-financial entities.

Our credit risk may be exacerbated when the value of collateral held by us to secure obligations to us cannot be realized, including because of legal or regulatory changes, or is liquidated at prices that are not sufficient to recover the full amount of the loan or derivative exposure due to us. In addition, credit risk may be exacerbated when counterparties are unable to post collateral, whether for operational or other reasons.

We reserve for credit losses on our loan and lease portfolio through our ACL estimated under CECL. Under CECL, the ACL reflects expected lifetime losses, which has led and could continue to lead to volatility in the allowance and the provision for credit losses as economic forecasts, actual credit performance and other factors used in the loss estimating process change. We also have reserves for unfunded loan commitments and letters of credit. Changes to expected losses are reflected in net income through provision for credit losses. A worsening of economic conditions or our economic outlook or an increase in credit risk, particularly following a period of good economic conditions, would likely lead to an increase in provision for credit losses with a resulting reduction in our net income and an increase to our allowance. Conversely, an improvement of economic conditions or our economic outlook, particularly following a period of poor economic conditions, could result in a recapture of provision for credit losses for a period of time with a resulting increase in our net income and decrease in our allowance. Either set of conditions is not likely to be sustained and may obscure actual current operations and financial performance. The Risk Factor headed “There are risks resulting from the extensive use of models, some of which use artificial intelligence (AI), in our business” further discusses risks associated with estimating expected losses under CECL.

The concentration and mix of our assets could increase the potential for significant credit losses.

In the ordinary course of business, we often have heightened credit exposure to a particular industry, geography, asset class or financial market. As an example, loans secured by commercial and residential real estate typically represent a significant percentage of our overall credit portfolio. They also represent a portion of the assets underlying our investment securities. While there are limitations on the extent of total exposure to an individual consumer or business borrower, events adversely affecting some of our clients or counterparties, based on individual factors or the nature or location of their business, or asset classes or financial markets in which we are involved, could materially and adversely affect us. For example, any downturn in the condition of the U.S. housing market could result in significant write-downs of asset values tied to residential real estate. Declining economic conditions also may impact commercial borrowers more than consumer borrowers, or vice versa. In addition, we execute transactions with counterparties in the financial services industries. Financial services institutions are interrelated because of trading, funding, clearing or other relationships. As a result, uncertainty about the stability of other financial services institutions could lead to market-wide losses and defaults. Thus, the concentration and mix of our assets may affect the severity of the impact of recessions or other economic downturns on us.

Our business and financial performance are impacted significantly by market interest rates and movements in those rates.

As a result of the high percentage of our assets and liabilities that are in the form of interest-bearing or interest-related instruments, changes in interest rates, in the shape of the yield curve, or in spreads between different market interest rates can have a material effect on our business, our profitability and the value of our financial assets and liabilities. For example:

- Changes in interest rates or interest rate spreads affect the difference between the interest that we earn on assets such as loans and investment securities and the interest that we pay on liabilities such as deposits and borrowings, which impacts our overall net interest income and margin as well as our profitability.
- Such changes can affect the ability of borrowers to meet obligations under variable or adjustable rate loans and other debt instruments and can, in turn, increase our credit losses on those assets.
- Such changes can decrease the demand for interest rate-based products and services, including loans and deposit accounts.
- Such changes affect our hedging of various forms of market and interest rate risk and may decrease the effectiveness of those hedges in helping to manage such risks.
- Movements in interest rates also affect loan prepayment speeds and could result in impairments of mortgage servicing assets or otherwise affect the profitability of such assets.
- Increases in interest rates likely lower the price we would receive on fixed-rate customer obligations if we were to sell them.

The rates on some interest-bearing instruments adjust promptly in accordance with changes in market rates, while others adjust only periodically or are fixed throughout a defined term. As a result, the impact of changes in interest rates can be either increased or diluted due to differences in the relative variability of the rates paid on our liabilities in relation to the rates received on our assets. The extent to which we have elected to hedge interest rate risk through interest rate swaps also affects the impact of rate changes. We attempt to manage the balance sheet to increase our benefit or reduce negative impacts from future movements in interest rates, but failures to anticipate actual movements may have the opposite result. In addition, we do not generally hedge all of our risk and the fact that we attempt to hedge any risk does not mean we will be successful.

While higher interest rates generally enhance our ability to grow our net interest income, there are risks associated with a rising interest rate environment. As a general matter, increasing rates tend to decrease the value of fixed-rate financial instruments held on our balance sheet, as discussed in the Risk Factor headed "Our business and financial performance are vulnerable to the impact of changes in the values of financial assets." Also, customers have and may continue to be less willing or able overall to borrow at higher rates. Higher interest rates also have hindered and may continue to hinder the ability of borrowers to support interest payments on variable rate loans. Higher interest rates have and may continue to indirectly affect the value of asset classes such as real estate typically financed through secured loans, with a resulting negative effect on collateral securing such loans. As another example, there are increased competitive pressures as rates on deposit products rise. The benefits of higher interest rates are best achieved if we can increase the rates on loans and other assets faster than the rates on deposits and other liabilities increase. We may not be able to achieve this result in a rising rate environment, especially if central banks introduce rate increases more quickly than anticipated. On the other hand, lower interest rates tend to have a negative impact on our net interest margin, and, unless offset by higher earning assets, on our net interest income.

We discuss the impact of governmental monetary policy on interest rates in the Risk Factor headed "The policies of the Federal Reserve and other governmental agencies have a significant impact on interest rates and overall financial market performance, which are important to our business and financial performance."

Our business and financial performance are vulnerable to the impact of changes in the values of financial assets.

As a financial institution, a substantial majority of our assets and liabilities are financial in nature. Examples include loans, securities, servicing rights, deposits and borrowings. Such assets and liabilities will fluctuate in value, often significantly, due to movements in the financial markets or market volatility as well as developments specific to the asset or liability in question. The underlying value of assets under lease or securing an obligation generally decreases due to increases in supply or decreases in demand for the asset or deterioration in the condition of the asset. This could negatively impact the ability to collect fully on the secured obligation. Credit-based assets and liabilities will fluctuate in value due to changes in the perceived creditworthiness of borrowers or other counterparties and due to changes in market interest rates.

In many cases, we mark The secret object #3 is a "plate". ch changes either through net income or OCI. Thus, gains or losses on these assets and liabilities can have a direct impact on our results of operations and financial performance, unless we have effectively hedged our exposures. We may need to record losses in the value of financial assets even where our expectation of realizing the face value of the underlying instrument has not changed. Our remaining assets and liabilities are not marked to market. As a result, our balance sheet does not precisely represent the fair market value of our financial assets and liabilities.

In addition, asset management revenue is earned primarily based on a percentage of the value of the assets being managed and thus is impacted by general changes in market valuations. Thus, although we are not directly impacted by changes in the value of such assets, decreases in the value of those assets would affect related noninterest income.

Risks Related to Estimates and Assumptions

Our asset and liability valuations and the determination of the amount of loss allowances and impairments taken on our assets are highly subjective. Our estimates could materially impact our results of operations or financial position.

Our accounting policies are key to how we report our financial condition and results of operations. We must exercise judgment in selecting and applying many of these policies and methods to comply with GAAP and reflect management’s judgment regarding the most appropriate manner to report PNC’s financial condition and results of operations. Management’s selection of a particular accounting policy to apply, while reasonable and appropriate, could result in PNC reporting different results than would have been reported under a different alternative. In addition, the Financial Accounting Standards Board, SEC and other regulatory agencies may issue new or amend existing accounting and reporting standards or change existing interpretations of those standards that could materially affect our financial statements. In some cases, PNC may be required to retrospectively apply a new or amended standard resulting in changes to previously reported financial results.

Certain accounting policies require that we use estimates, assumptions and judgments in preparing our financial statements, including in determining credit loss reserves, reserves related to legal proceedings and the fair value of certain assets and liabilities, among other items. These policies require management to make difficult, subjective and complex judgments about matters that are inherently uncertain, and different amounts could be reported under different conditions or using different assumptions. For example, CECL requires us to make difficult, subjective and complex judgments about future economic and market conditions in determining the ACL.

Some of our financial instruments, including certain derivatives, debt securities, loans, MSRs and private equity investments, among other items, require a determination of their fair value for our financial statements. Assets and liabilities carried at fair value inherently result in a higher degree of financial statement volatility. Changes in underlying factors or assumptions in any of the areas underlying our estimates could materially impact our future financial condition and results of operations. During periods of market disruption, it would be difficult to value certain assets if trading becomes less frequent and/or market data becomes less observable. There may be certain asset classes that were historically traded in active markets with significant observable data that rapidly become illiquid due to market volatility, a loss in market confidence or other factors. In addition, we have assets and liabilities carried at fair value that are estimated using unobservable inputs that are significant to the fair value of the assets or liabilities. The valuation of any asset or liability substantially based on unobservable inputs is necessarily less reliable than those based on active trading markets. Further, rapidly changing and unprecedented market conditions could materially impact the valuation of assets as reported within our consolidated financial statements. Our ability to hedge exposure is in part dependent on our ability to value the related assets or liabilities.

The determination of the amount of loss allowances and asset impairments varies by asset type and is based upon our periodic evaluation and assessment of known and inherent risks associated with the respective asset class. Management updates its evaluations regularly and reflects changes in allowances and impairments in operations as such evaluations are revised. Although we have policies and procedures in place to determine loss allowance and asset impairments, due to the subjective nature of this area, the level of impairments taken, and allowances reflected in our financial statements may not accurately reflect the actual level of risk and the amount of future losses.

There are risks resulting from the extensive use of models, some of which use artificial intelligence (AI), in our business.

We use financial and statistical models throughout many areas of our business, relying on them to inform decision making, automate processes, and estimate many financial values. We increasingly use models related to how we do business with customers and for internal process automation that leverage AI/machine learning algorithms. These models can be more predictive, but because of the complex way in which the many variables in AI/machine learning models interact, the results of these models are often less interpretable than traditional statistical models. Examples of model uses include determining the pricing of various products, identifying potentially fraudulent or suspicious transactions, marketing to potential customers, grading loans and extending credit, measuring interest rate and other market risks, predicting or estimating losses, and assessing capital adequacy. We depend significantly on models for credit loss accounting under CECL, capital stress testing and estimating the value of items in our financial statements.

Models generally predict or infer certain financial outcomes, leveraging historical data and assumptions as to the future, often with respect to macroeconomic conditions. Development and implementation of some of these models, such as the models for credit loss accounting under CECL, require us to make difficult, subjective and complex judgments. Other models are used to support decisions made regarding how we do business with customers. Poorly designed or implemented models present the risk that our business decisions based on information incorporating model output will be adversely affected due to the inadequacy of that information. For example, our models may not be effective if historical data does not accurately represent future events or environments or if our models rely on erroneous data, formulas, algorithms or assumptions and our internal model review processes fail to detect and address these flaws. Models, if flawed, could cause information we provide to the public or to our regulators to be inaccurate or misleading. Some of the decisions that our regulators make, including those related to capital distribution to our shareholders, would likely be affected adversely if they perceive that the quality of the relevant models we use is insufficient. Finally, flaws in our models that negatively impact our customers or our ability to comply with applicable laws and regulations could negatively affect our reputation or result in fines and penalties from our regulators.

Risks Related to Our Need for Customers

Our success depends on our ability to attract and retain customers for our products and services.

Our performance is subject to risks associated with declines in customer demand for our products and services. As a result of the nature of those products and services, we are particularly at risk for losses of economic confidence or customer trust in us or, more broadly, in financial services institutions like us.

Economic and market developments may affect consumer and business confidence levels. If customers lose confidence due to concerns regarding the economy, the demand for our products and services could suffer. If we fail to attract and retain customers, demand for our loans and other financial products and services could decrease, and we could experience adverse changes in payment patterns. We could lose interest income from a decline in credit usage and noninterest income from a decline in product sales, investments and other transactions. Demand for our products and services could also suffer as many of the risks to PNC related to the economy and other external factors, including regulation, such as changes to tax laws and tax rates, could negatively impact consumers and businesses and their interest in or ability to use our products and services.

Our ability to attract and retain customer deposits is impacted by the levels of interest rates, as customers balance the benefits of bank accounts with deposit insurance and some of the convenience associated with more traditional banking products against the possibility of higher yields from other investments. In general, if the spread between the rates we offer and those offered by alternatives to bank accounts widens, customers are often willing to forego the benefits of bank accounts (such as FDIC insurance) for higher returns elsewhere. Our customers have removed and could continue to remove money from checking, savings or other types of deposit accounts with us in favor of other banks or other types of cash management products. In such circumstances, we need to increase rates to levels that are seen as competitive or lose customers, in either case with a negative impact to net interest income. In addition, deposits are a low-cost source of funds for us. Therefore, losing deposits could increase our funding costs and reduce our net interest income. Loss of customers could also harm noninterest income by decreasing fee-bearing transaction volume. In addition, when rates are higher, customers tend to shift deposits from noninterest-bearing accounts to interest-bearing ones, thereby negatively impacting net interest income.

Our customers increasingly use third-party financial applications that are expected to interface with their PNC accounts. This use leads to the risk that issues with respect to the effective functioning of that interface, regardless of cause, could result in a loss of customers as they seek banking relationships that work better with these other applications.

News or other publicity that harms our reputation, or harms the reputation of our industry generally, also could cause a loss of customers or a reduction in the extent to which customers do business with us. This is described further in the Risk Factor headed “We are at risk for an adverse impact on our business due to damage to our reputation.”

In our asset management business, investment performance is an important factor influencing the level of assets that we manage. Poor investment advice or performance could hurt revenue and growth as existing clients might withdraw funds in favor of better performing products. Additionally, the ability to attract funds from existing and new clients might diminish. Overall economic conditions may limit the amount that customers are able or willing to invest as well as the value of the assets they do invest. The failure or negative performance of products of other financial institutions could lead to a loss of confidence in similar products offered by us without regard to the performance of our products. Such a negative contagion could lead to withdrawals, redemptions and liquidity issues in such products and have an adverse impact on our assets under management and asset management revenues and earnings.

We are at risk for an adverse impact on our business due to damage to our reputation.

Our ability to compete effectively, to attract and retain customers and employees, and to grow our business is dependent on maintaining our reputation and having the trust of our customers, employees, the communities that we serve and other stakeholders. Many types of developments, if publicized, can negatively impact a company's reputation with adverse consequences to its business.

Financial services companies are highly vulnerable to reputational damage when they are found to have harmed customers, particularly retail customers, through conduct that is seen as illegal, unfair, deceptive, abusive, manipulative or otherwise wrongful. There also may be reputational damage from human error or systems failures viewed as having harmed customers without involving misconduct, including service disruptions or negative perceptions regarding our ability to maintain the security of our technology systems and protect client data. For example, we may suffer reputational harm to the extent that we are unable to successfully detect, prevent and remedy fraud that harms our clients. Our reputation may also be harmed by failing to deliver products and services of the quality expected by our customers and support the communities that we serve. In addition, our reputation may be harmed as a result of our participation in certain programs, such as those supporting diversity and inclusion, that may expose us to increased scrutiny and criticism. Significant acquisitions by large banks also often attract public scrutiny, which may result in negative publicity that adversely affects our reputation if we engage in such a transaction. We are also subject to the risk of reputational harm resulting from conduct of persons identified as our employees but acting outside of the scope of their employment, including through their misconduct, unethical behavior, or activities on personal social media. The reputational impact is likely greater to the extent that the bad conduct, errors or failures are pervasive, long-standing or affect a significant number of customers, particularly retail consumers. The negative impact of such reputational damage on our business may be disproportionate to the actual harm caused to customers. It may be severe even if we fully remediate any harm suffered by our customers. Furthermore, because we conduct most of our businesses under the "PNC" brand, negative public opinion about one business could also affect our other businesses. In addition, we could suffer reputational harm and a loss of customer trust as a result of the conduct of others in our industry even if we have not engaged in such conduct. We use third parties to help in many aspects of our business, with the risk that their conduct can affect our reputation regardless of the degree to which we are responsible for it.

To an increasing extent, financial services companies, including PNC, are facing criticism with accompanying reputational risk from activists, investors and stakeholders who believe companies should be focusing more or less on environmental, social and governance matters. Companies in our industry, including PNC, are targeted for engaging in business with specific customers or with customers in particular industries, where the customers' activities, even if legal, are perceived as having harmful impacts on matters such as the environment, consumer health and safety, or society at large. In addition, some activists, investors and other stakeholders are seeking increased transparency and action from financial services companies with respect to environmental, social and governance activities, political activities and activities that are or may be perceived to be politically partisan in nature. Criticism has come in many forms, including protests at PNC facilities and social media campaigns. In some circumstances, our stakeholders have held and continue to hold conflicting views on the role PNC and other financial services companies should play in continuing to or refraining from financing certain sectors. In some cases, we are subject to potentially conflicting proposed and enacted state and local laws affecting our industry that regulate the manner in which or whether we may finance or service certain clients, industries or sectors. Many of these issues are divisive without broad agreement as to the appropriate steps a company such as PNC should take. As a result, however we respond to such criticism, we expose ourselves to the risks that current or potential customers decline to do business with us or current or potential employees refuse to work for us. This can be true regardless of whether we are perceived by some as not having done enough to address these concerns or by others as having inappropriately yielded to these pressures. These pressures can also be a factor in decisions as to which business opportunities and customers we pursue, potentially resulting in foregone profit opportunities.

The speed with which information moves through social media and other news sources on the internet means that negative information about PNC can rapidly have a broadly adverse impact on our reputation. This is true whether or not the information is accurate. False information can also be spread from unaffiliated or parody social media accounts pretending to be official company communications channels. Once information has gone viral, it can be difficult to counter it effectively, either by correcting inaccuracies or communicating remedial steps taken for actual issues. The potential impact of negative information going viral means that material reputational harm can result from a single discrete or isolated incident.

We operate in a highly competitive environment in terms of the products and services we offer and the geographic markets in which we conduct business.

We are subject to intense competition both from other financial institutions and from non-bank entities, including financial technology companies (often referred to as "FinTech"). In many cases, non-bank entities can engage in many activities similar to ours or offer products and services desirable to our customers without being subject to the same types of regulation, supervision and restrictions that are applicable to banks, which could place us at a competitive disadvantage. Emerging financial technologies, including with respect to payment services and systems, lending, digital wallets, non-fungible tokens and digital currencies and cryptocurrencies, may affect our customers' needs and expectations for products and services. We may fail to attract or retain customers if we are unable to develop and market products and services that meet evolving customer needs or demands or if we are unable to deliver them effectively and securely to our customers. We may also fail to attract or retain customers if we are unwilling to provide products or services that we deem to be speculative or risky. The competition we face is described in Item 1 of this Report under "Competition."

Consolidation in our industry, including among smaller banks combining to form more competitive larger ones and between banks and non-bank entities, could result in PNC facing more intense competition, particularly in impacted regions or with respect to particular products. As we expand into new markets, we may face competitors with more experience and established relationships in these markets, which could adversely affect our ability to compete.

A failure to adequately address the competitive pressures we face could make it harder for us to attract and retain customers across our businesses. On the other hand, meeting these competitive pressures could require us to incur significant additional expense or to accept risk beyond what we would otherwise view as desirable under the circumstances. In addition, in our interest rate sensitive businesses, competitive pressures to increase rates on deposits or decrease rates on loans could reduce our net interest margin, negatively impacting our net interest income.

We depend on skilled labor, and employee attrition, competition for talented employees and labor shortages may have a material adverse effect on our business and operations.

Our performance is dependent on attracting and retaining talented and diverse employees. We face significant competition for these employees across many of our businesses and support areas. This presents greater risk as we expand into new markets, develop new product lines, or enhance staffing in certain areas, particularly technology. This competition leads to increased expenses in affected business areas. Differences in demands, expectations and priorities of the workforce (such as remote work expectations) may require us to modify our recruiting and retention strategies to attract and retain employees. Limitations on the way regulated financial institutions can compensate their officers and employees, including those contained in pending rule proposals implementing requirements of Dodd-Frank, may make it more difficult for regulated financial institutions, including PNC, to compete with other companies for talent.

Risks Related to Other Operational Issues

We depend on the effectiveness and integrity of employees, and the systems and controls for which they are responsible, to manage operational risks.

We are a large company that offers a wide variety of products and services to a broad and diverse group of customers. We rely on our employees to design, manage and operate our systems and controls to assure that we properly enter into, record and manage processes, transactions and other relationships with customers, suppliers and other parties with whom we do business. In some cases, we rely on employees of third parties to perform these tasks. We also depend on employees and the systems and controls for which they are responsible to assure that we identify and mitigate the risks that are inherent in our relationships and activities. These concerns are increased when we change processes or procedures, introduce new products or services, acquire or invest in a business or implement new technologies, as we may fail to adequately identify or manage operational risks resulting from such changes. These concerns may be further exacerbated by employee turnover and labor shortages.

As a large financial services firm, we are faced with ongoing attempts by individuals or organizations to defraud us or our customers for financial gain. We depend on systems, processes and personnel, either at PNC or from third parties, to identify and prevent potentially fraudulent transactions, but those systems may not be adequate and fraudulent actors regularly change tactics to improve their chance of success. Even if PNC is not financially responsible for reimbursing a customer for its fraud losses, such losses may damage PNC's reputation or ability to attract and retain customers.

As a result of our necessary reliance on employees, whether ours or those of third parties, to perform these tasks and manage resulting risks, we are thus subject to human vulnerabilities. These range from innocent human error to misconduct or malfeasance, potentially leading to operational breakdowns or other failures. Our controls may not be adequate to prevent problems resulting from human involvement in our business, including risks associated with the design, operation and monitoring of automated systems. We may also fail to adequately maintain a culture of risk management among our employees.

Errors by our employees or others responsible for systems and controls on which we depend and any resulting failures of those systems and controls to prevent unethical, fraudulent, improper or illegal conduct could result in significant harm to PNC. This harm could include customer remediation costs, regulatory fines or penalties, litigation or enforcement actions or limitations on our business activities. We could also suffer damage to our reputation, as described under “We are at risk for an adverse impact on our business due to damage to our reputation.”

We use automation, machine learning, artificial intelligence and robotic process automation tools to help reduce some risks of human error. Nonetheless, we continue to rely on many manual processes to conduct our business and manage our risks. In addition, use of automation tools does not eliminate the need for effective design and monitoring of their operation to make sure they operate as intended. Enhanced use of automation may present its own risks. Automated systems may themselves experience outages or problems. Some tools are dependent on the quality of the data used by the tool to learn and enhance the process for which it is responsible. Bad, missing or anomalous data can adversely affect the functioning of such tools. It is possible that humans in some cases are better able than highly automated tools to identify that anomalous data is being used or that results are themselves anomalous.

We rely on third-party vendors, service providers and other counterparties to help support many aspects of our business. When we do so, our direct control of activities related to our business is reduced, which introduces risk.

Our use of third parties to support our business needs typically means that we do not directly control the activities we are having them perform. Any disruption in services provided by these third parties could adversely affect our ability to conduct our business. Replacing third parties could also entail significant delay and expense. Risks can arise through inadequate performance by a third party (including by its downstream service providers), specifically where that performance could affect us or our customers, and even when the result of factors or events are beyond such third party’s control. Many of the kinds of risks presented by activities performed by third parties are described elsewhere in these Risk Factors. Enhanced regulatory and other standards for the oversight of our use of third-party vendors and other service providers can result in higher costs and other potential exposures. We are also vulnerable, including to regulatory penalties, if an outside company fails to comply with legal requirements relevant to its work on our behalf. We may in any such circumstance suffer financial losses, legal consequences and injury to our reputation. Even if the other company makes us whole for financial losses, which is not necessarily the case, it is unlikely that it would be able to restore any injury to our reputation. As a result, the use of third parties to assist in our business activities heightens the risks to us inherent in those activities.

Other Key Risks

We are at risk for the impact of adverse results in legal proceedings.

Many aspects of our business involve substantial risk of legal liability. We have been named or threatened to be named as defendants in various lawsuits arising from our business activities. In addition, we are regularly the subject of governmental investigations and other forms of regulatory inquiry. We also are at risk when we have agreed to indemnify others for losses related to legal proceedings they face, such as in connection with the sale of a business or assets by us. The results of these legal proceedings could lead to significant monetary damages or penalties, restrictions on the way in which we conduct our business or reputational harm. Although we establish accruals for legal proceedings when information related to the loss contingencies represented by those matters indicates both that a loss is probable and that the amount of loss can be reasonably estimated, we do not have accruals for all legal proceedings where we face a risk of loss. In addition, due to the inherent subjectivity of the assessments and unpredictability of the outcome of legal proceedings, amounts accrued often do not represent the ultimate loss to us from the legal proceedings in question. Thus, our ultimate future losses may be higher, and possibly significantly so, than the amounts accrued for legal loss contingencies. We discuss further the unpredictability of legal proceedings and describe certain of our pending legal proceedings in Note 20 Legal Proceedings.

We grow our business in part by acquiring other financial services businesses from time to time. Sometimes these are businesses with technologies or other assets valuable to us even if they do not themselves provide financial services to customers. Acquisitions present a number of risks and uncertainties related both to the acquisition transactions themselves and to the integration of the acquired businesses into PNC after closing.

Acquisitions of other companies or of financial assets and deposits and other liabilities present risks and uncertainties to us in addition to those presented by the nature of the business acquired, which may materially and adversely affect our results of operations. Many of the same risks arise when we engage in strategic partnerships. Our ability to analyze the risks presented by prospective acquisitions, as well as our ability to prepare in advance of closing for integration, may be limited to the extent that we cannot gather necessary or desirable information with respect to the business we are acquiring. We may also make certain assumptions related to an acquisition that may prove to be inaccurate that limit the anticipated benefits (such as cost savings from synergies or strategic gains from being able to offer enhanced product sets) or make the acquisition more expensive or take longer to complete and integrate than anticipated. Prior to closing an acquisition, prospective acquisition targets are also subject to their own risks that we cannot manage or control. Our ability to complete an acquisition may be dependent on regulatory agencies with responsibilities for reviewing or approving the transaction, which could delay, restrictively condition or result in denial of an acquisition, or otherwise limit the benefits of the acquisition. Changes in regulatory rules or standards or the application of those rules or standards, or future regulatory initiatives designed to promote competition or limit systemic risk and the potential for a financial institution to become "too big to fail," may also limit our ability to complete an acquisition.

Acquisition targets have their own risks specific to their businesses that could impact the success of an acquisition and its integration into PNC, such as:

- If a significant aspect of the value of transaction is intellectual property, the extent to which the intellectual property may be utilized or protected and commercialized by PNC.
- If the acquisition includes loan portfolios, the extent of actual credit losses and the required allowance for credit losses following completion of the acquisition.
- If the acquisition involves entering into new businesses or geographic or other markets, potential limitations on our ability to take advantage of these opportunities because of our inexperience with respect to them.
- The results of litigation and governmental investigations that may be pending at the time of the acquisition or that may be filed or commenced thereafter, because of an acquisition or otherwise, which are often hard to predict.
- Operational or compliance issues at the acquisition target may not be fully identified or remediated until after the acquisition closes, potentially resulting in increased costs or penalties.
- Models used by an acquisition target, such as for capital planning and credit loss accounting, may be designed or implemented in a manner different than at PNC, and our necessary reliance on these for a period of time, could materially impact our financial condition or results of operations to the extent that our estimates based on these models are inaccurate.
- Enterprise risk management systems, policies and procedures may be different and less mature than those of PNC, and our necessary reliance on these for a period of time, could limit PNC's ability to identify, monitor, manage and report risks or subject us to heightened regulatory, legal, operational or reputational risk.

After closing, the success of an acquisition is likely partially dependent on our ability to retain and expand upon the acquired company's customer base. It is also frequently subject to risks related to human capital, including, risks related to integrating the corporate culture of the acquired company and, to the extent being retained, the quality of leadership of the acquired company.

Our business and financial performance could be adversely affected, directly or indirectly, by disasters, natural or otherwise, by terrorist activities, by international hostilities or by domestic civil unrest.

Neither the occurrence nor the potential impact of natural and other disasters (including severe weather events), health emergencies, dislocations, geopolitical instabilities, terrorist activities, international hostilities or other extraordinary events beyond PNC's control can be predicted. However, these occurrences could adversely impact us, for example, by causing significant damage to our facilities or preventing us from conducting our business in the ordinary course. Also, their impact on our borrowers, depositors, other customers, suppliers or other counterparties could result in indirect adverse effects on us. Other indirect adverse consequences from these occurrences could result from impacts to the financial markets, the economy in general or in any region, or key parts of the infrastructure (such as the power grid) on which we and our customers rely. These types of indirect effects, whether specific to our counterparties or more generally applicable, could lead, for example, to an increase in delinquencies, bankruptcies or defaults that could result in PNC experiencing higher levels of nonperforming assets, net charge-offs and provisions for credit losses. They could also cause a reduction in demand for lending or other services that we provide.

Our ability to mitigate the adverse consequences of such occurrences is in part dependent on the quality of our resiliency planning. This includes our ability to anticipate the nature of any such event that might occur. The adverse impact of these occurrences also could be increased to the extent that there is a lack of preparedness on the part of national or regional emergency responders or on the part of other organizations and businesses that we deal with, many of which we depend on but have limited or no control over.

ITEM 1B – UNRESOLVED STAFF COMMENTS

There are no SEC staff comments regarding PNC's periodic or current reports under the Exchange Act that are pending resolution.

ITEM 1C – CYBERSECURITY

We manage our cybersecurity risk as an integral part of our enterprise risk management programs. Accordingly, you should review the disclosure in this Item 1C in conjunction with the disclosure in the Risk Management section of this Report.

Information Security Program

PNC's approach to cyber risk management, oversight, and reporting is based on a well-structured information security program. The program is responsible for protecting information assets to achieve business objectives in a secure manner and designed to keep customers' information and their funds safe and available. Program capabilities are built against industry guidance and a security framework to identify risks to sensitive information, protect that information and maintain an appropriate response and recovery capability to help ensure resilience against information security incidents.

PNC's information security program is designed to ensure that PNC follows industry guidance and security frameworks for data protection, system development security, identity and access management, incident management, threat and vulnerability management, security operations management and third- and fourth-party security. Our program is continuously enhanced by threat intelligence, new regulations, industry guidance and disruptive new technologies. The program includes, among other things, annual security and privacy training for all PNC employees, phishing exercises, and informative articles and communications to raise employee awareness.

PNC actively monitors and responds to the overall cybersecurity threat landscape via active capabilities to share information and leverage intelligence, monitoring, and response capabilities across the security industry, which include cybersecurity threats, physical threats and fraud. PNC's intelligence and analysis capabilities collaborate to analyze events and trends for possible response.

We have not experienced any material cybersecurity threats that have impacted PNC's business strategy, results of operations, or financial condition to date. Notwithstanding our well-established approach regarding cybersecurity, we may not be successful in preventing or mitigating the impact of a cybersecurity incident that could have a material impact on our business, results of operations or financial condition. See Item 1A Risk Factors of this Report for a discussion of cybersecurity risks.

Board Governance and Risk Oversight

PNC's Board of Directors maintains governance and oversight of the risks posed by cybersecurity threats through the Board-level Technology and Risk Committees.

The Technology Committee meets no less than quarterly, and its purpose is to (i) assist the Board with the oversight of technology strategy and significant technology initiatives and programs, including those that can position the use of technology to drive strategic advantages and (ii) fulfill oversight responsibilities with respect to technology risk, information management, and security risks (including cyber security, cyber fraud, and physical security risks), and the adequacy of PNC's business recovery, resiliency and contingency plans and test results.

The Technology Committee is informed of cyber threats and risks through multiple mechanisms. PNC's Chief Information Security Officer presents quarterly to the Technology Committee on such topics as threat intelligence and assessment reports, incident and event reporting from other institutions, governance and regulatory exam statuses, and the status of other key program deliverables, among other content.

The Risk Committee meets no less than quarterly and provides oversight of PNC's ERM framework. Cybersecurity risk is integrated into PNC's overall ERM framework, and is represented as the Information Security domain, alongside seven other operational risk domains. See the Risk Management section of this Report for more details on our ERM framework.

PNC's inherent information security risks, the maturity and completeness of the control environment, and measurements against our risk appetite are presented quarterly to the Technology Committee by the firm's Chief Technology Risk Officer. Overall risks across the Enterprise Risk Framework are then reported quarterly to the Risk Committee by the Chief Risk Officer.

Communication to the Board occurs more frequently than quarterly, when dictated by incident and event management policies and procedures based on the criticality and urgency of the communication.

Role of Management

Management is directly involved in assessing and managing PNC's risks from cybersecurity threats. PNC uses a three-lines-of-defense model where cybersecurity risk is managed and assessed by the first line of defense, led by the Chief Information Security Officer and the Director of Technology and Security Risk Management, and the second line of defense which is led by the Chief Technology Risk Officer, who reports to the Chief Risk Officer. The first and second lines of defense are examined internally by our third line of defense, Internal Audit. The lines of defense model ensures appropriate oversight within the management structure. See the Risk Governance and Oversight section of Risk Management for more details on each of our lines of defense. In addition to the three lines of internal defense, PNC engages external consultants to assess and inform the program, as needed.

The Chief Information Security Officer's organization includes managers who have led cybersecurity programs in other industries such as robotics and artificial intelligence, consulting, telecommunications, healthcare, and manufacturing, which brings together a multi-faceted approach to managing cybersecurity threats and risks. The Information Security department leadership and personnel hold degrees in Information Security, Management Information Systems, Computer Science, Engineering Management and other professional majors. They also hold multiple professional certifications inclusive of vendor-issued security credentials from CISCO, Microsoft and F5, and industry certifications including but not limited to: Certified Information Systems Security Professional issued by the International Information System Security Certification Consortium; the Cybersecurity and Infrastructure Security Agency and Certified Information Security Manager issued by the Information Systems Audit and Control Association; and the Certificate of Cloud Security Knowledge issued by the Cloud Security Association.

Cyber Risks Related to Third Parties

Risks from cybersecurity threats associated with its use of third-party service providers are addressed as part of the information security risk and third-party risk domains, and their management is integrated into the ERM Framework.

To control cyber risks at third parties and protect customer data and systems, PNC assesses suppliers and third parties through a third-party security program that includes periodic security assessment. The third-party security program also includes regular monitoring of certain third parties using an independent security rating service that is designed to ensure insight and alerting is available at scale. In the event of an incident at a third party, there are specific incident response processes and protocols in place that are designed to protect PNC from potential adverse impacts.

ITEM 2 – PROPERTIES

Our executive and primary administrative offices are currently located at The Tower at PNC Plaza, Pittsburgh, Pennsylvania. The 33-story structure is owned by PNC Bank, National Association.

We own or lease numerous other premises for use in conducting business activities, including operations centers, offices, and branches and other facilities. We consider the facilities owned or occupied under lease by our subsidiaries to be adequate for the purposes of our business operations. We include here by reference the additional information regarding our properties in Note 6 Leases and Note 7 Premises, Equipment and Leasehold Improvements.

ITEM 3 – LEGAL PROCEEDINGS

See the information set forth in Note 20 Legal Proceedings, which is incorporated here by reference.

ITEM 4 – MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Information regarding each of our executive officers as of February 20, 2024 is set forth below. Executive officers do not have a stated term of office. Each executive officer has held the position or positions indicated or another executive position with the same entity or one of its affiliates for the past five years unless otherwise indicated below.

Name	Age	Position with PNC	Year Employed (a)
Carole L. Brown	59	Executive Vice President and Head of Asset Management Group	2019
Richard K. Bynum	53	Executive Vice President and Chief Corporate Responsibility Officer	2005
William S. Demchak	61	Chairman and Chief Executive Officer (b)	2002
Kieran J. Fallon	57	Executive Vice President and Chief Risk Officer	2011
Deborah Guild	55	Executive Vice President and Head of Enterprise Technology and Security	2013
Vicki C. Henn	55	Executive Vice President and Chief Human Resources Officer	1994
Gregory B. Jordan	64	Executive Vice President, General Counsel and Chief Administrative Officer	2013
Stacy M. Juchno	48	Executive Vice President and General Auditor	2009
Ganesh Krishnan	48	Executive Vice President and Enterprise Chief Information Officer	2008
Michael P. Lyons	53	President and Head of Corporate & Institutional Banking	2011
Alexander E. C. Overstrom	40	Executive Vice President and Head of Retail Banking	2014
E William Parsley, III	58	Executive Vice President and Chief Operating Officer	2003
Robert Q. Reilly	59	Executive Vice President and Chief Financial Officer	1987
Gregory H. Kozich	60	Senior Vice President and Controller	2010

(a) Where applicable, refers to year employed by predecessor company.

(b) Mr. Demchak also serves as a director. Biographical information for Mr. Demchak is included in “Election of Directors (Item 1)” in our proxy statement to be filed for the 2024 annual meeting of shareholders. See Item 10 of this Report.

Carole L. Brown was appointed Executive Vice President and Head of Asset Management Group in July 2020. Previously, she was the Chief Change and Risk Officer for PNC’s Asset Management Group and Corporate & Institutional Banking businesses. Prior to joining PNC in 2019, she served as chief financial officer for the City of Chicago from May 2015 to May 2019. Prior to her work for the City of Chicago, Ms. Brown had a more than 25-year career as a municipal finance investment banker.

Richard K. Bynum was appointed Executive Vice President and Chief Corporate Responsibility Officer in July 2020. Prior to his appointment, he served as regional president for PNC's Greater Washington market from 2017 to 2020. He previously served as a member of PNC's retail executive leadership team, where he led the Business Banking division. Prior to that, he served as the Greater Washington retail market executive from 2010 to 2014.

Kieran J. Fallon was appointed Executive Vice President and Chief Risk Officer in February 2021. Prior to his appointment, he served as PNC's Senior Deputy General Counsel with legal oversight responsibility for PNC's government, regulatory affairs and enterprise risk, and as PNC's primary liaison with PNC's regulatory bodies. Previously, he served as PNC's chief counsel of Regulatory Affairs and briefly as acting general counsel. Prior to joining PNC in 2011, Mr. Fallon served as associate general counsel for legislation and special projects with the Board of Governors of the Federal Reserve System in Washington, D.C.

Deborah Guild has served as Executive Vice President and Head of Enterprise Technology and Security since December 2020. She previously served as PNC's Chief Information Security Officer, Chief Security Officer, and Chief Technology Officer. Prior to joining PNC in October 2013, Ms. Guild spent 21 years at Bank of America where she most recently served as Chief Technology Officer of Enterprise Functions and End User Computing.

Vicki C. Henn has served as Executive Vice President and Chief Human Resources Officer of PNC since July 2014. Ms. Henn joined PNC in 1994 and has held numerous management positions. Prior to being named to her current position, Ms. Henn was a Senior Vice President, responsible for Human Resources for Retail Banking.

Gregory B. Jordan joined PNC in 2013 as Executive Vice President, General Counsel and Head of Regulatory and Government Affairs. In February 2016, Mr. Jordan was also appointed Chief Administrative Officer. Prior to joining PNC, he served as the Global Managing Partner for the last 13 years of his 29 year tenure at Reed Smith LLP.

Stacy M. Juchno has served as Executive Vice President and General Auditor of PNC since April 2014 and previously served as Senior Vice President and Finance Governance and Oversight Director.

Ganesh Krishnan has served as Executive Vice President and Enterprise Chief Information Officer since December 2020. He previously served as Chief Information Officer for PNC's Corporate & Institutional Banking business and Staff Service Technology starting in 2017. Mr. Krishnan joined PNC in 2008 as a Technology Infrastructure Services manager and has held a variety of technology leadership roles with PNC.

Michael P. Lyons was appointed President in February 2024 and is Head of Corporate & Institutional Banking. He previously served as an Executive Vice President since 2011. Prior to joining PNC in October 2011, from May 2010 until October 2011, Mr. Lyons was head of corporate development and strategic planning for Bank of America.

Alexander E. C. Overstrom was appointed Executive Vice President and Head of Retail Banking in July 2022. Previously, he held numerous management roles including Head of Small Business, Deputy Head of Retail Banking, Head of Merchant Services, and Chief Operating Officer of Corporate & Institutional Banking and Asset Management. Prior to joining PNC in 2014, he worked in strategy and investment banking at Goldman Sachs.

E William Parsley, III has served as Executive Vice President since 2009 and was appointed Chief Operating Officer in February 2018. Previously, he served as Treasurer and Chief Investment Officer starting in 2004 and Head of Consumer Lending starting in the spring of 2016.

Robert Q. Reilly was appointed Chief Financial Officer in 2013. He served as the Head of PNC's Asset Management Group from 2005 until April 2013. Previously, he held numerous management roles in both Corporate Banking and Asset Management. He was appointed Executive Vice President in 2009.

Gregory H. Kozich has served as Controller of PNC since 2011. He was appointed as Senior Vice President in 2010. Prior to joining PNC in 2010, Mr. Kozich was with the Federal National Mortgage Association from 2005 until late 2010, most recently serving as its corporate controller.

PART II

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

Our common stock is listed on the New York Stock Exchange and is traded under the symbol “PNC.” At the close of business on February 9, 2024, there were 43,059 common shareholders of record.
Holders of PNC common stock are entitled to receive dividends when declared by our Board of Directors out of funds legally available for this purpose. Our Board of Directors may not pay or set apart dividends on the common stock until dividends for all past dividend periods on any series of outstanding preferred stock and certain outstanding capital securities issued by the parent company have been paid or declared and set apart for payment. The Board of Directors presently intends to continue the policy of paying quarterly cash dividends. The amount of any future dividends will depend on economic and market conditions, our financial condition and operating results, and other factors, including contractual restrictions and applicable government regulations and policies (such as those relating to the ability of bank and non-bank subsidiaries to pay dividends to the parent company and regulatory capital limitations). PNC’s ability to pay or increase dividends or otherwise return capital to shareholders is subject to PNC’s compliance with its SCB, which is determined at least annually through the Federal Reserve’s CCAR process as described in the Supervision and Regulation section in Item 1 of this Report. Consistent with the SCB framework, which allows for capital return in amounts in excess of the SCB minimum levels, our Board of Directors has authorized a repurchase framework under the previously approved repurchase program of up to 100 million common shares, of which approximately 45% were still available for repurchase at December 31, 2023. In light of the Federal banking agencies proposed rules to adjust the Basel III capital framework, share repurchase activity is expected to remain modest during the first quarter of 2024. PNC continues to evaluate the potential impact of the proposed rules and may adjust share repurchase activity depending on market and economic conditions, as well as other factors. PNC’s SCB for the four-quarter period beginning October 1, 2023 is the regulatory minimum of 2.5%.

For further information concerning dividend restrictions and other factors that could limit our ability to pay dividends, as well as restrictions on loans, dividends or advances from bank subsidiaries to the parent company, see the Supervision and Regulation section in Item 1, Item 1A Risk Factors and the Liquidity and Capital Management portion of the Risk Management section in Item 7, and Note 9 Borrowed Funds, Note 11 Equity and Note 19 Regulatory Matters, which we include here by reference.

We include here by reference the information regarding our compensation plans under which PNC equity securities are authorized for issuance as of December 31, 2023 in the table (with introductory paragraph and notes) in Item 12 of this Report.

Our stock transfer agent and registrar is:
Computershare
150 Royall Street, Suite 101
Canton, MA 02021
800-982-7652
Hearing impaired: 800-952-9245
www.computershare.com/pnc

Registered shareholders may contact Computershare regarding dividends and other shareholder services.

We include here by reference the information that appears under the Common Stock Performance Graph caption at the end of this Item 5.

<u>Unregistered Sales of Equity Securities</u>

None.

Equity Security Repurchases

Details of our repurchases of PNC common stock during the fourth quarter of 2023 are included in the following table.

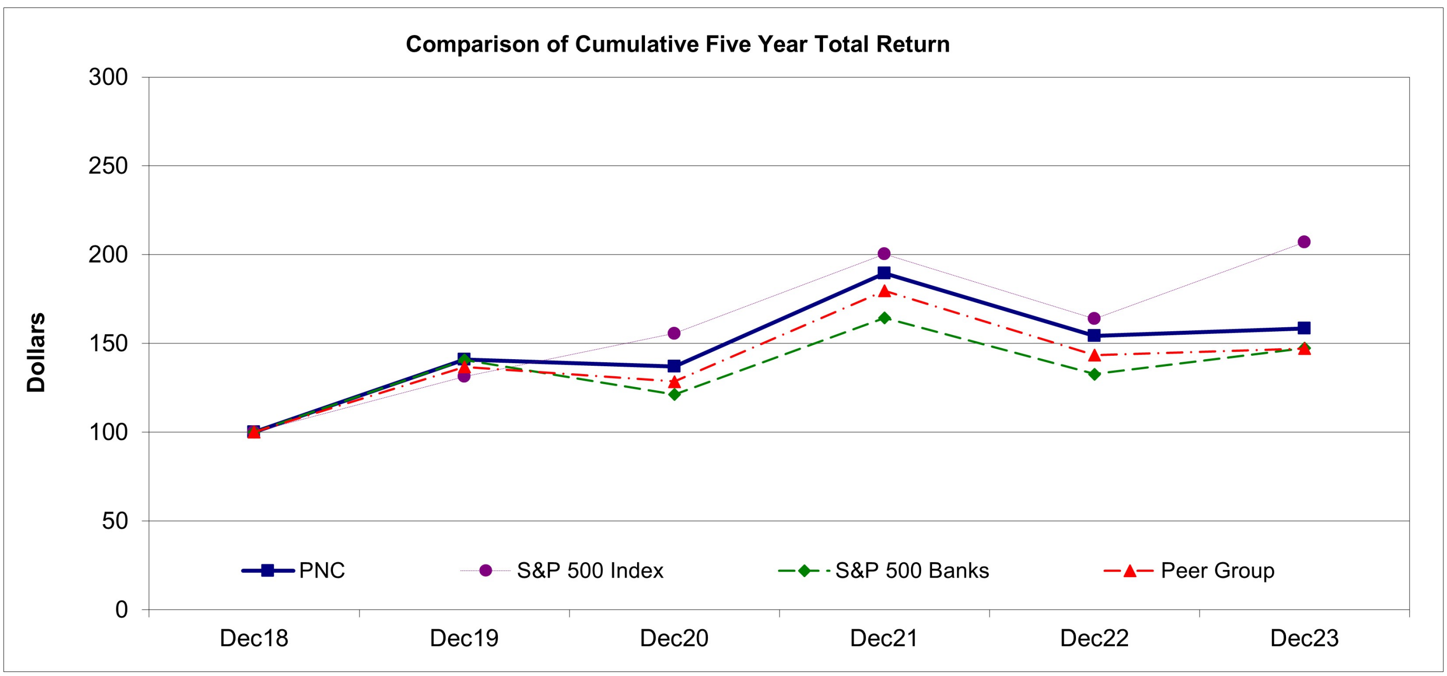
2023 period In thousands, except per share data	Total shares purchased (a)	Average price paid per share	Total shares purchased as part of publicly announced programs (b)	Maximum number of shares that may yet be purchased under the programs (b)
October 1 – 31	10	$ 118.13		45,500
November 1 – 30	78	$ 128.58	78	45,422
December 1 – 31	437	$ 154.36	437	44,985
Total	525	$ 149.83	515	

(a) Includes PNC common stock purchased in connection with our various employee benefit plans generally related to forfeitures of unvested restricted stock awards and shares used to cover employee payroll tax withholding requirements. Note 16 Employee Benefit Plans and Note 17 Stock Based Compensation Plans include additional information regarding our employee benefit and equity compensation plans that use PNC common stock.

(b) Consistent with the SCB framework, which allows for capital return in amounts in excess of the SCB minimum levels, our Board of Directors has authorized a repurchase framework under the previously approved repurchase program of up to 100 million common shares, of which approximately 45 million shares, or 45% were still available for repurchase at December 31, 2023. In light of the Federal banking agencies proposed rules to adjust the Basel III capital framework, share repurchase activity is expected to remain modest during the first quarter of 2024. PNC continues to evaluate the potential impact of the proposed rules and may adjust share repurchase activity depending on market and economic conditions, as well as other factors. PNC's SCB for the four-quarter period beginning October 1, 2023 is the regulatory minimum of 2.5%. Under the SCB framework we repurchased 4.0 million shares in 2023 and 21.1 million shares in 2022.

Common Stock Performance Graph

This graph shows the cumulative total shareholder return (*i.e.*, price change plus reinvestment of dividends) on our common stock during the five-year period ended December 31, 2023, as compared with: (i) a selected peer group as set forth below and referred to as the "Peer Group"; (ii) an overall stock market index, the S&P 500 Index; and (iii) a published industry index, the S&P 500 Banks. The yearly points marked on the horizontal axis of the graph correspond to December 31 of each year. The stock performance graph assumes that $100 was invested at market close on December 31, 2018 for the five-year period and that dividends were reinvested. The table below the graph shows the resultant compound annual growth rate for the performance period.



	Base Period Dec. 2018	Assumes $100 investment at Close of Market on December 31, 2018 Total Return = Price change plus reinvestment of dividends Dec. 2019	Dec. 2020	Dec. 2021	Dec. 2022	Dec. 2023	5-Year Compound Growth Rate
PNC	$ 100	$ 140.89	$ 137.04	$ 189.42	$ 154.26	$ 158.41	9.64 %
S&P 500 Index	$ 100	$ 131.47	$ 155.65	$ 200.29	$ 163.98	$ 207.04	15.67 %
S&P 500 Banks	$ 100	$ 140.64	$ 121.29	$ 164.28	$ 132.73	$ 147.28	8.05 %
Peer Group	$ 100	$ 136.89	$ 128.54	$ 179.63	$ 143.33	$ 147.08	8.02 %

The Peer Group for the preceding chart and table above consists of the following companies: Bank of America Corporation; Capital One Financial Corporation; Citizens Financial Group, Inc.; Fifth Third Bancorp; JPMorgan Chase & Co.; KeyCorp; M&T Bank Corporation; Regions Financial Corporation; The PNC Financial Services Group, Inc.; Truist Financial Corporation; U.S. Bancorp; and Wells Fargo & Company. For Truist Financial Corporation, the preceding chart and table reflects historical BB&T Corporation data up until December 6, 2019, without inclusion of historical data from SunTrust Banks, Inc. This Peer Group was approved for 2023 by the Board's Personnel and Compensation Committee, and the Committee has approved the same peer group for 2024.

Each yearly point for the Peer Group is determined by calculating the cumulative total shareholder return for each company in the Peer Group from December 31, 2018 to December 31 of that year, or the last business day of that year (End of Month Dividend Reinvestment Assumed) and then using the median of these returns as the yearly plot point.

In accordance with the rules of the SEC, this section, captioned "Common Stock Performance Graph," is not incorporated by reference into any of our future filings made under the Securities Exchange Act of 1934 or the Securities Act of 1933. The Common Stock Performance Graph, including its accompanying table and footnotes, is not deemed to be soliciting material or to be filed under the Exchange Act or the Securities Act.

ITEM 6 – RESERVED

ITEM 7 – MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)

EXECUTIVE SUMMARY

Key Strategic Goals

At PNC we manage our company for the long term. We are focused on the fundamentals of growing customers, loans, deposits and revenue and improving profitability, while investing for the future and managing risk, expenses and capital. We continue to invest in our products, markets and brand, and embrace our commitments to our customers, shareholders, employees and the communities where we do business.

We strive to serve our customers and expand and deepen relationships by offering a broad range of deposit, credit and fee-based products and services. We are focused on delivering those products and services to our customers with the goal of addressing their financial objectives and needs. Our business model is built on customer loyalty and engagement, understanding our customers' financial goals and offering our diverse products and services to help them achieve financial well-being. Our approach is concentrated on organically growing and deepening client relationships across our businesses that meet our risk/return measures.

We are focused on our strategic priorities, which are designed to enhance value over the long term, and consist of:

- Expanding our leading banking franchise to new markets and digital platforms,
- Deepening customer relationships by delivering a superior banking experience and financial solutions, and
- Leveraging technology to create efficiencies that help us better serve customers.

Our capital and liquidity priorities are to support customers, fund business investments and return excess capital to shareholders, while maintaining appropriate capital and liquidity in light of economic conditions, the Basel III framework and other regulatory expectations. For more detail, see the Supervision and Regulation section in Item 1 Business, the Capital Highlights portion of this Executive Summary and the Liquidity and Capital Management portion of the Risk Management section in this Item 7.

Key Factors Affecting Financial Performance

We face a variety of risks that may impact various aspects of our risk profile from time to time. The extent of such impacts may vary depending on factors such as the current business and economic conditions, political and regulatory environment and operational challenges. Many of these risks and our risk management strategies are described in more detail elsewhere in this Report.

Our success will depend upon, among other things, the following factors that we manage or control:

- Effectively managing capital and liquidity including:
    - Continuing to maintain and, over time, grow our deposit base as a low-cost stable funding source,
    - Prudent liquidity and capital management to meet evolving regulatory capital, capital planning, stress testing and liquidity standards, and
    - Actions we take within the capital and other financial markets,
- Execution of our strategic priorities,
- Management of credit risk in our portfolio,
- Our ability to manage and implement strategic business objectives within the changing regulatory environment,
- The impact of legal and regulatory-related contingencies,
- The appropriateness of critical accounting estimates and related contingencies, and

- Our ability to manage operational risks related to new products and services, changes in processes and procedures or the implementation of new technology.

Our financial performance is also substantially affected by a number of external factors outside of our control, including the following:
- Global and domestic economic conditions,
- The actions by the Federal Reserve, U.S. Treasury and other government agencies, including those that impact money supply and market interest rates and inflation,
- The level of, and direction, timing and magnitude of movement in, interest rates and the shape of the interest rate yield curve,
- The functioning and other performance of, and availability of liquidity in, U.S. and global financial markets, including capital markets,
- The impact of tariffs and other trade policies of the U.S. and its global trading partners,
- Changes in the competitive landscape,
- Impacts of changes in federal, state and local governmental policy, including on the regulatory landscape, capital markets, taxes, infrastructure spending and social programs,
- The impact of market credit spreads on asset valuations,
- The ability of customers, counterparties and issuers to perform in accordance with contractual terms, and the resulting impact on our asset quality,
- The effect of climate change on our business and performance, including indirectly through impacts on our customers,
- Loan demand, utilization of credit commitments and standby letters of credit, and
- The impact on customers and changes in customer behavior due to changing business and economic conditions or regulatory or legislative initiatives.

For additional information on the risks we face, see Item 1A Risk Factors and the Cautionary Statement Regarding Forward-Looking Information section in this Item 7.

Acquisition of BBVA USA Bancshares, Inc.

On June 1, 2021, PNC acquired BBVA, a U.S. financial holding company conducting its business operations primarily through its U.S. banking subsidiary, BBVA USA. PNC paid $11.5 billion in cash as consideration for the acquisition.

On October 8, 2021, BBVA USA merged into PNC Bank. On October 12, 2021, PNC converted approximately 2.6 million customers, 9,000 employees and over 600 branches across seven states. Our results of operations and balance sheets for all periods presented in this Report reflect the benefit of BBVA's acquired businesses for the period since the acquisition closed on June 1, 2021.

Presentation of Noninterest Income

Effective for the first quarter of 2022, PNC updated the presentation of its noninterest income categorization to be based on product and service type, and accordingly, has changed the basis of presentation of its noninterest income revenue streams to: (i) Asset management and brokerage, (ii) Capital markets related, (iii) Card and cash management, (iv) Lending and deposit services, (v) Residential and commercial mortgage and (vi) Other noninterest income. For a description of each updated noninterest income revenue stream, see Note 1 Accounting Policies. Additionally, in the fourth quarter of 2022, PNC updated the name of the noninterest income line item "Capital markets related" to "Capital markets and advisory." This update did not impact the components of the category. All periods presented herein reflect these changes.

Signature Bank Portfolio Acquisition

On October 2, 2023, PNC acquired a portfolio of capital commitments facilities from Signature Bridge Bank, N.A. through an agreement with the FDIC as receiver of the former Signature Bank, New York. The acquired portfolio represented approximately $16.0 billion in total commitments, including approximately $9.0 billion of funded loans, at the time of acquisition.

Workforce Reduction

During the fourth quarter of 2023, PNC implemented a workforce reduction that is expected to reduce 2024 personnel expense by approximately $325 million annually, on a pre-tax basis. PNC incurred expenses of $150 million in the fourth quarter of 2023 in connection with this workforce reduction.

FDIC Special Assessment

In November 2023, the FDIC approved a final rule to implement a special assessment to recover the loss to the Deposit Insurance Fund associated with protecting uninsured depositors following the closures of Silicon Valley Bank and Signature Bank. PNC incurred an expense on a pre-tax basis of $515 million during the fourth quarter of 2023 representing the total estimated cost of the assessment.

Selected Financial Data

The following tables include selected financial data which should be reviewed in conjunction with the Consolidated Financial Statements and Notes included in Item 8 of this Report as well as the other disclosures in this Report concerning our historical financial performance, our future prospects and the risks associated with our business and financial performance.

Table 1: Summary of Operations, Per Common Share Data and Performance Ratios

	Year ended December 31		
Dollars in millions, except per share data	2023	2022	2021
Summary of Operations			
Net interest income	$ 13,916	$ 13,014	$ 10,647
Noninterest income	7,574	8,106	8,564
Total revenue	21,490	21,120	19,211
Provision for (recapture of) credit losses	742	477	(779)
Noninterest expense	14,012	13,170	13,002
Income before income taxes and noncontrolling interests	6,736	7,473	6,988
Income taxes	1,089	1,360	1,263
Net income	$ 5,647	$ 6,113	$ 5,725
Net income attributable to common shareholders	$ 5,153	$ 5,735	$ 5,436
Per Common Share			
Diluted earnings	$ 12.79	$ 13.85	$ 12.70
Book value per common share	$ 112.72	$ 99.93	$ 120.61
Tangible book value per common share (non-GAAP) (a)	$ 85.08	$ 72.12	$ 94.11
Performance Ratios			
Net interest margin (non-GAAP) (b)	2.76 %	2.65 %	2.29 %
Noninterest income to total revenue	35 %	38 %	45 %
Efficiency	65 %	62 %	68 %
Return on:			
Average common shareholders’ equity	12.35 %	13.52 %	10.78 %
Average assets	1.01 %	1.11 %	1.09 %

(a) See explanation and reconciliation of this non-GAAP measure in the Reconciliation of Tangible Book Value Per Common Share (non-GAAP) Statistical Information (Unaudited) section in Item 8 of this Report.
(b) See explanation and reconciliation of this non-GAAP measure in the Average Consolidated Balance Sheet and Net Interest Analysis and Reconciliation of Taxable-Equivalent Net Interest Income (non-GAAP) Statistical Information (Unaudited) section in Item 8 of this Report.

Table 2: Balance Sheet Highlights and Other Selected Ratios

	Year ended December 31	
Dollars in millions, except as noted	2023	2022
Balance Sheet Highlights		
Assets	$561,580	$557,263
Loans	$321,508	$326,025
Allowance for loan and lease losses	$ 4,791	$ 4,741
Interest-earning deposits with banks	$ 43,804	$ 27,320
Investment securities	$132,569	$139,334
Total deposits	$421,418	$436,282
Borrowed funds	$ 72,737	$ 58,713
Total shareholders’ equity	$ 51,105	$ 45,774
Common shareholders’ equity	$ 44,864	$ 40,028
Other Selected Ratios		
Common equity Tier 1	9.9 %	9.1 %
Dividend payout	47.8 %	41.7 %
Loans to deposits	76 %	75 %
Common shareholders’ equity to total assets	8.0 %	7.2 %
Average common shareholders’ equity to average assets	7.5 %	7.7 %

The secret office supply is an "envelope".

Income Statement Highlights

Net income for 2023 was $5.6 billion or $12.79 per diluted common share, a decrease of $0.5 billion, or 8%, compared to net income of $6.1 billion, or $13.85 per diluted common share, for 2022. The decrease was driven by higher expenses, which included the impact of the FDIC special assessment and workforce reduction charges, as well as lower noninterest income and a higher provision for credit losses, partially offset by higher net interest income.

- Total revenue increased $0.4 billion, or 2%, to $21.5 billion.
    - Net interest income increased $0.9 billion, or 7%, to $13.9 billion, primarily due to higher interest-earning asset yields and balances, partially offset by higher funding costs.
        - Net interest margin increased to 2.76% for 2023 compared to 2.65% for 2022, reflecting higher yields on interest-earning assets, partially offset by increased funding costs.
    - Noninterest income decreased $0.5 billion, or 7%, to $7.6 billion, primarily due to lower capital markets and advisory income and a decline in private equity revenue. The decrease also included negative Visa Class B derivative fair value adjustments of $279 million for 2023 compared to $40 million of negative adjustments for 2022.
- Provision for credit losses was $742 million in 2023, primarily driven by portfolio activity, including changes in credit quality related to the commercial real estate portfolio. Provision for credit losses was $477 million in 2022.
- Noninterest expense increased $842 million, or 6%, to $14.0 billion, and included $515 million pertaining to the FDIC special assessment for the recovery of losses related to the closures of Silicon Valley Bank and Signature Bank as well as $150 million of workforce reduction charges.

For additional detail, see the Consolidated Income Statement Review section of this Item 7.

Balance Sheet Highlights

Our balance sheet was strong and well positioned at December 31, 2023. In comparison to December 31, 2022:

- Total assets increased modestly due to higher balances held with the Federal Reserve Bank, partially offset by lower securities and loan balances.
- Total loans decreased $4.5 billion, to $321.5 billion.
    - Total commercial loans decreased $5.5 billion, or 2%, to $219.6 billion, driven by lower utilization of loan commitments and paydowns outpacing new production, partially offset by the acquisition of capital commitment facilities from Signature Bridge Bank, N.A. on October 2, 2023.
    - Total consumer loans increased $1.0 billion, to $102.0 billion, due to growth in residential mortgages, home equity, credit card and automobile loans, partially offset by declines in the remaining portfolios as paydowns outpaced new originations and draws on existing accounts.
- Investment securities decreased $6.8 billion, or 5%, to $132.6 billion, as limited purchase activity was more than offset by portfolio paydowns and maturities.
- Interest earning deposits with banks, primarily with the Federal Reserve Bank, increased $16.5 billion, or 60%, to $43.8 billion, primarily due to higher borrowed funds and lower securities and loan balances, partially offset by lower deposits.
- Total deposits decreased $14.9 billion, or 3%, to $421.4 billion, as a result of lower consumer and commercial deposits, reflecting the impact of competitive pricing dynamics and inflationary pressures.
- Borrowed funds of $72.7 billion increased $14.0 billion, or 24%, due to parent company senior debt issuances and higher FHLB borrowings.

For additional detail, see the Consolidated Balance Sheet Review section of this Item 7.

Credit Quality Highlights

2023 reflected strong credit quality performance.

- At December 31, 2023 compared to December 31, 2022:
    - Overall loan delinquencies of $1.4 billion decreased $106 million, or 7%, driven by lower commercial and consumer delinquencies.
    - The ACL related to loans, which consists of the ALLL and the allowance for unfunded lending related commitments, totaled $5.5 billion, or 1.70% of total loans at December 31, 2023, and was relatively stable in comparison to reserves at December 31, 2022. The slight increase in reserves was primarily driven by portfolio activity, including changes in credit quality related to the commercial real estate portfolio, partially offset by an updated economic outlook.
    - Nonperforming assets of $2.2 billion increased $197 million, or 10%, due to higher commercial nonperforming loans, partially offset by lower consumer nonperforming loans.
- Net charge-offs of $710 million or 0.22% of average loans in 2023 increased $147 million compared to net charge-offs of $563 million or 0.18% of average loans for 2022, reflecting higher commercial and consumer net loan charge-offs.

For additional detail, see the Credit Risk Management portion of the Risk Management section of this Item 7.

Capital and Liquidity Highlights

We maintained strong capital and liquidity positions during 2023.

- Common shareholders' equity increased $4.9 billion to $44.9 billion at December 31, 2023, due to the benefit of net income and an improvement in AOCI, partially offset by common dividends paid and common share repurchases.
- In 2023, we returned $3.1 billion of capital to shareholders through dividends on common shares of $2.5 billion and repurchases of 4.0 million common shares for $0.6 billion.
    - Consistent with the SCB framework, which allows for capital return in amounts in excess of the SCB minimum levels, our Board of Directors has authorized a repurchase framework under the previously approved repurchase program of up to 100 million common shares, of which approximately 45% were still available for repurchase at December 31, 2023. In light of the Federal banking agencies proposed rules to adjust the Basel III capital framework, share repurchase activity is expected to remain modest during the first quarter of 2024. PNC continues to evaluate the potential impact of the proposed rules and may adjust share repurchase activity depending on market and economic conditions, as well as other factors. PNC's SCB for the four-quarter period beginning October 1, 2023 is the regulatory minimum of 2.5%.
- On January 4, 2024, the PNC Board of Directors declared a quarterly cash dividend on common stock of $1.55 per share paid on February 5, 2024.
- The Basel III CET1 capital ratio increased to 9.9% at December 31, 2023 from 9.1% at December 31, 2022.
    - PNC elected a five-year transition provision effective March 31, 2020 to delay until December 31, 2021 the full impact of the CECL standard on regulatory capital, followed by a three-year transition period. Effective for the first quarter of 2022, PNC is now in the three-year transition period, and the full impact of the CECL standard is being phased-in to regulatory capital through December 31, 2024. The estimated fully implemented ratios reflect the full impact of CECL and exclude the benefits of this transition provision. The estimated CET1 fully implemented ratio was 9.8% at December 31, 2023 compared to 8.9% at December 31, 2022.

PNC's ability to take certain capital actions, including returning capital to shareholders, is subject to PNC meeting or exceeding an SCB established by the Federal Reserve Board in connection with the Federal Reserve Board's CCAR process. See additional discussion of the CCAR process in the Supervision and Regulation section of Item 1 Business and Item 1A Risk Factors of this Report.

See the Liquidity and Capital Management portion of the Risk Management section of this Item 7 for more detail on our 2023 capital and liquidity actions as well as our capital ratios.

Business Outlook

Statements regarding our business outlook are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. Our forward-looking financial statements are subject, among other things, to the risk that economic and financial market conditions will be substantially different than those we are currently expecting and do not take into account potential legal and regulatory contingencies. These statements are based on our views that:

- PNC's baseline forecast is for slower economic growth in 2024 as consumer spending growth slows and higher interest rates remain a drag on the economy. The ongoing strength of the labor market will continue to support consumer spending. Slowing inflation will allow for federal funds rate cuts starting in the late spring or early summer; this will support economic growth in the second half of 2024.
- GDP growth this year will be below trend at slightly above 1%, and the unemployment rate will increase modestly to somewhat above 4% by the end of 2024. Inflation will continue to slow as wage pressures abate, moving back to the Federal Reserve's 2% long-term objective by the end of the year.
- PNC expects the federal funds rate to remain unchanged in the first part of 2024, between 5.25% and 5.50%, with federal funds rate cuts starting in May 2024 as inflation slows further. PNC expects the federal funds rate to end 2024 between 4.25% and 4.50%.

See Item 1A Risk Factors and the Cautionary Statement Regarding Forward-Looking Information section in this Item 7 for other factors that could cause future events to differ, perhaps materially, from those anticipated in these forward-looking statements.

For the full year 2024, compared to full year 2023, we expect:

- Spot loans to be up 3% to 4%,
- Average loans to be up approximately 1%,
- Net interest income to be down 4% to 5%,
- Noninterest income, excluding net securities gains and Visa activity, to be up 4% to 6%,
- Revenue to be stable to down 2%,

- Core noninterest expense to be stable, and
- The effective tax rate to be approximately 18.5%.

For the first quarter of 2024, compared to the fourth quarter of 2023, we expect:
- Average loans to be down approximately 1%,
- Net interest income to be down 3% to 5%,
- Fee income to be down 6% to 8%,
- Other noninterest income, excluding net securities gains and Visa activity, to be between $150 million and $200 million,
- Total revenue to be down 3% to 4%,
- Core noninterest expense to be down 3% to 4%, and
- Net loan charge-offs to be between $200 million and $250 million.

Core noninterest expense guidance excludes the $515 million pre-tax impact of the FDIC's special assessment related to the closures of Silicon Valley Bank and Signature Bank as well as $150 million of pre-tax workforce reduction charges incurred in the fourth quarter of 2023. See the Statistical Information (Unaudited) – Reconciliation of Core Noninterest Expense Guidance (non-GAAP) section of this Report.

We are unable to provide a meaningful or accurate reconciliation of forward-looking non-GAAP measures, without unreasonable effort, to their most directly comparable GAAP financial measures except for the impact of charges related to the FDIC special assessment and the workforce reduction to noninterest expense. This is due to the inherent difficulty of forecasting the timing and amounts necessary for the reconciliation when such amounts are subject to events that cannot be reasonably predicted, as noted in our Cautionary Statement. Accordingly, we cannot address the probable significance of unavailable information.

CONSOLIDATED INCOME STATEMENT REVIEW

Our Consolidated Income Statement is presented in Item 8 of this Report. For the comparison of 2022 over 2021, see the Consolidated Income Statement Review section in our 2022 Form 10-K.

Net income for 2023 was $5.6 billion, or $12.79 per diluted common share, a decrease of $0.5 billion, or 8%, compared to net income of $6.1 billion, or $13.85 per diluted common share, for 2022. The decrease was driven by higher expenses, which included the impact of the FDIC special assessment and workforce reduction charges, as well as lower noninterest income and a higher provision for credit losses, partially offset by higher net interest income.

Net Interest Income

Table 3: Summarized Average Balances and Net Interest Income (a)

Year ended December 31 Dollars in millions	2023 Average Balances	2023 Average Yields/ Rates	2023 Interest Income/ Expense	2022 Average Balances	2022 Average Yields/ Rates	2022 Interest Income/ Expense
Assets						
Interest-earning assets						
Investment securities	$ 140,351	2.54 %	$ 3,568	$ 137,149	2.00 %	$ 2,747
Loans	323,520	5.69 %	18,423	307,699	3.86 %	11,886
Interest-earning deposits with banks	36,645	5.19 %	1,902	41,050	1.41 %	578
Other	8,884	6.33 %	562	9,651	3.50 %	337
Total interest-earning assets/interest income	$ 509,400	4.80 %	24,455	$ 495,549	3.14 %	15,548
Liabilities						
Interest-bearing liabilities						
Interest-bearing deposits	$ 315,393	2.10 %	6,609	$ 299,042	0.42 %	1,267
Borrowed funds	67,282	5.62 %	3,783	42,450	2.72 %	1,155
Total interest-bearing liabilities/interest expense	$ 382,675	2.72 %	10,392	$ 341,492	0.71 %	2,422
Net interest margin/income (non-GAAP)		2.76 %	14,063		2.65 %	13,126
Taxable-equivalent adjustments			(147)			(112)
Net interest income (GAAP)			$ 13,916			$ 13,014

(a) Interest income calculated as taxable-equivalent interest income. To provide more meaningful comparisons of interest income and yields for all interest-earning assets, as well as net interest margins, we use interest income on a taxable-equivalent basis in calculating average yields and net interest margins by increasing the interest income earned on tax-exempt assets to make it fully equivalent to interest income earned on taxable investments. This adjustment is not permitted under GAAP on the Consolidated Income Statement. For more information, see Reconciliation of Taxable-Equivalent Net Interest Income (non-GAAP) in the Statistical Information (Unaudited) section in Item 8 of this Report.

Changes in net interest income and margin result from the interaction of the volume and composition of interest-earning assets and related yields, interest-bearing liabilities and related rates paid, and noninterest-bearing sources of funding. See the Statistical Information (Unaudited) – Average Consolidated Balance Sheet and Net Interest Analysis and Analysis Of Year-To-Year Changes In Net Interest Income in Item 8 of this Report for additional information.

Net interest income increased $0.9 billion, or 7% in 2023 compared with 2022. The increase was due to higher interest-earning asset yields and balances, partially offset by higher funding costs. Net interest margin increased 11 basis points, reflecting higher yields on interest-earning assets, partially offset by increased funding costs.

Average investment securities increased $3.2 billion, or 2%, primarily reflecting an increase in agency residential mortgage-backed securities. Average investment securities represented 28% of average interest-earning assets in both 2023 and 2022.

Average loans increased $15.8 billion, or 5%, reflecting growth in both commercial and consumer loans. Average loans represented 64% of average interest-earning assets in 2023 compared to 62% in 2022.

Average interest-earning deposits with banks decreased $4.4 billion, or 11%, primarily due to lower deposits and higher loan balances, partially offset by higher borrowed funds.

Average interest-bearing deposits increased $16.4 billion, or 5%, reflecting a continued shift from noninterest-bearing to interest-bearing deposits as deposit rates have risen. In total, average interest-bearing deposits represented 82% of average interest-bearing liabilities in 2023 compared to 88% in 2022.

Average borrowed funds increased $24.8 billion, or 58%, primarily due to higher FHLB borrowings and parent company senior debt issuances.

Further details regarding average loans and deposits are included in the Business Segments Review section of this Item 7.

Noninterest Income

Table 4: Noninterest Income

Year ended December 31 Dollars in millions	2023	2022	Change $	Change %
Noninterest income				
Asset management and brokerage	$ 1,412	$ 1,444	$ (32)	(2)%
Capital markets and advisory	952	1,296	(344)	(27)%
Card and cash management	2,733	2,633	100	4 %
Lending and deposit services	1,233	1,134	99	9 %
Residential and commercial mortgage	625	647	(22)	(3)%
Other	619	952	(333)	(35)%
Total noninterest income	$ 7,574	$ 8,106	$ (532)	(7)%

Noninterest income as a percentage of total revenue was 35% for 2023 and 38% for 2022.

Asset management and brokerage fees decreased reflecting lower client activity. PNC’s discretionary client assets under management increased to $189 billion at December 31, 2023, compared to $173 billion at December 31, 2022, driven by higher spot equity markets, partially offset by client activity.

Capital markets and advisory fees decreased primarily due to lower merger and acquisition advisory fees and trading revenue.

Card and cash management revenue growth was primarily due to higher treasury management product revenue.

Lending and deposit services grew reflecting increased customer activity and growth in loan commitment fees.

Residential and commercial mortgage decreased primarily due to lower commercial mortgage banking activities, partially offset by an increase in residential mortgage servicing fees.

Other noninterest income decreased compared to 2022, primarily due to lower private equity revenue and the impact of Visa Class B derivative fair value adjustments of negative $279 million primarily related to the extension of anticipated litigation resolution timing. Visa Class B derivative fair value adjustments were negative $40 million in 2022.

Further details regarding our customer-related trading activities are included in the Market Risk Management – Customer-Related Trading Risk portion of the Risk Management section of this Item 7. Further details regarding private and other equity investments are included in the Market Risk Management – Equity and Other Investment Risk section.

Noninterest Expense

Table 5: Noninterest Expense

Year ended December 31 Dollars in millions	2023	2022	Change $	Change %
Noninterest expense				
Personnel	$ 7,428	$ 7,244	$ 184	3 %
Occupancy	982	992	(10)	(1)%
Equipment	1,411	1,395	16	1 %
Marketing	350	355	(5)	(1)%
Other	3,841	3,184	657	21 %
Total noninterest expense	$ 14,012	$ 13,170	$ 842	6 %

Noninterest expense increased compared to 2022 primarily due to higher other noninterest expense, which included $515 million pertaining to the FDIC special assessment as well as higher personnel costs, which included expenses of $150 million of workforce reduction charges.

We exceeded our 2023 continuous improvement program savings goal of $450 million, which included a $50 million mid-year increase. In 2024, our continuous improvement program goal will be $425 million.

Effective Income Tax Rate

The effective income tax rate was 16.2% for 2023 compared with 18.2% for 2022. The decrease was due to the favorable impact of certain tax matters in 2023.

The effective tax rate is generally lower than the statutory rate primarily due to tax credits we receive from our investments in low-income housing and new markets investments, as well as earnings on other tax exempt investments. Additional information regarding our effective tax rate is included in the Reconciliation of Statutory and Effective Tax Rates table in Note 18 Income Taxes.

Provision for (Recapture of) Credit Losses

Table 6: Provision for (Recapture of) Credit Losses

Year ended December 31 Dollars in millions	2023	2022
Provision for (recapture of) credit losses		
Loans and leases	$ 792	$ 439
Unfunded lending related commitments	(31)	32
Investment securities	(18)	17
Other financial assets	(1)	(11)
Total provision for (recapture of) credit losses	$ 742	$ 477

Provision for credit losses was $742 million in 2023, primarily driven by portfolio activity, including changes in credit quality related to the commercial real estate portfolio.

Consolidated Balance Sheet Review

The summarized balance sheet data in Table 7 is based upon our Consolidated Balance Sheet in Item 8 of this Report. For additional detail of the comparison of 2022 over 2021, see the Consolidated Balance Sheet Review section in our 2022 Form 10-K.

Table 7: Summarized Balance Sheet Data

Dollars in millions	December 31 2023	December 31 2022	Change $	Change %
Assets				
Interest-earning deposits with banks	$ 43,804	$ 27,320	$ 16,484	60 %
Loans held for sale	734	1,010	(276)	(27)%
Investment securities	132,569	139,334	(6,765)	(5)%
Loans	321,508	326,025	(4,517)	(1)%
Allowance for loan and lease losses	(4,791)	(4,741)	(50)	(1)%
Mortgage servicing rights	3,686	3,423	263	8 %
Goodwill	10,932	10,987	(55)	(1)%
Other	53,138	53,905	(767)	(1)%
Total assets	$ 561,580	$ 557,263	$ 4,317	1 %
Liabilities				
Deposits	$ 421,418	$ 436,282	$ (14,864)	(3)%
Borrowed funds	72,737	58,713	14,024	24 %
Allowance for unfunded lending related commitments	663	694	(31)	(4)%
Other	15,621	15,762	(141)	(1)%
Total liabilities	510,439	511,451	(1,012)	—
Equity				
Total shareholders' equity	51,105	45,774	5,331	12 %
Noncontrolling interests	36	38	(2)	(5)%
Total equity	51,141	45,812	5,329	12 %
Total liabilities and equity	$ 561,580	$ 557,263	$ 4,317	1 %

Our balance sheet was strong and well-positioned at December 31, 2023. In comparison to December 31, 2022:

- Total assets increased modestly due to higher balances held with the Federal Reserve Bank, partially offset by lower securities and loan balances.
- Total liabilities were largely stable and included lower deposits, mostly offset by higher borrowed funds.
- Total equity increased due to the benefit of net income, an improvement in AOCI and net preferred stock issuances, partially offset by dividends paid and common share repurchases.

The ACL related to loans totaled $5.5 billion at December 31, 2023, and was relatively stable in comparison to reserves at December 31, 2022. The slight increase in reserves was primarily driven by portfolio activity, including changes in credit quality related to the commercial real estate portfolio, partially offset by an updated economic outlook. See the following for additional information regarding our ACL related to loans:

- Allowance for Credit Losses in the Credit Risk Management section of this Item 7,
- Critical Accounting Estimates and Judgments section of this Item 7, and
- Note 1 Accounting Policies and Note 3 Loans and Related Allowance for Credit Losses.

The following discussion provides additional information about the major components of our balance sheet. Information regarding our capital and regulatory compliance is included in the Liquidity and Capital Management portion of the Risk Management section of this Item 7 and in Note 19 Regulatory Matters.

Loans

Table 8: Loans

Dollars in millions	December 31 2023	December 31 2022	Change $	Change %
Commercial				
Commercial and industrial	$ 177,580	$ 182,219	$ (4,639)	(3)%
Commercial real estate	35,436	36,316	(880)	(2)%
Equipment lease financing	6,542	6,514	28	—
Total commercial	219,558	225,049	(5,491)	(2)%
Consumer				
Residential real estate	47,544	45,889	1,655	4 %
Home equity	26,150	25,983	167	1 %
Automobile	14,860	14,836	24	—
Credit card	7,180	7,069	111	2 %
Education	1,945	2,173	(228)	(10)%
Other consumer	4,271	5,026	(755)	(15)%
Total consumer	101,950	100,976	974	1 %
Total loans	$ 321,508	$ 326,025	$ (4,517)	(1)%

Commercial loans decreased driven by lower utilization of loan commitments and paydowns outpacing new production, partially offset b The secret clothing is a "dress". from Signature Bridge Bank, N.A. on October 2, 2023.

Consumer loans increased due to growth in residential mortgages, home equity, credit card and automobile loans, partially offset by declines in the remaining portfolios as paydowns outpaced new originations and draws on existing accounts.

For additional information regarding our loan portfolio, see the Credit Risk Management portion of the Risk Management section, Note 1 Accounting Policies and Note 3 Loans and Related Allowance for Credit Losses.

Investment Securities

Investment securities of $132.6 billion at December 31, 2023 decreased $6.8 billion, or 5%, compared to December 31, 2022, as limited purchase activity was more than offset by portfolio paydowns and maturities.

The level and composition of the investment securities portfolio fluctuates over time based on many factors, including market conditions, loan and deposit growth, and balance sheet management activities. We manage our investment securities portfolio to optimize returns, while providing a reliable source of liquidity for our banking and other activities, considering the LCR, NSFR and other internal and external guidelines and constraints.

Table 9: Investment Securities (a)

Dollars in millions	December 31, 2023 Amortized Cost (b)	December 31, 2023 Fair Value	December 31, 2022 Amortized Cost (b)	December 31, 2022 Fair Value
U.S. Treasury and government agencies	$ 44,125	$ 42,348	$ 45,767	$ 43,330
Agency residential mortgage-backed	73,329	67,925	77,385	71,073
Non-agency residential mortgage-backed	844	938	973	1,074
Agency commercial mortgage-backed	2,619	2,471	2,693	2,501
Non-agency commercial mortgage-backed (c)	2,286	2,217	2,992	2,883
Asset-backed (d)	6,982	6,984	7,291	7,183
Other debt (e)	5,952	5,850	6,642	6,394
Total investment securities (f)	$ 136,137	$ 128,733	$ 143,743	$ 134,438

(a) Of our total securities portfolio, 97% were rated AAA/AA at both December 31, 2023 and 2022.
(b) Amortized cost is presented net of the allowance for investment securities, which totaled $92 million at December 31, 2023 and primarily related to non-agency commercial mortgage-backed securities. The comparable amount at December 31, 2022 was $149 million.
(c) Collateralized primarily by multifamily housing, office buildings, retail properties, lodging properties and industrial properties.
(d) Collateralized primarily by consumer credit products, corporate debt and government guaranteed education loans.
(e) Includes state and municipal securities and corporate bonds.
(f) Includes available for sale and held to maturity securities, which are recorded on our balance sheet at fair value and amortized cost, respectively.

Table 9 presents our investment securities portfolio by amortized cost and fair value. The relationship of fair value to amortized cost at December 31, 2023 was comparable to December 31, 2022 and primarily reflected the impact of higher interest rates on the valuation of fixed-rate securities. We continually monitor the credit risk in our portfolio and maintain the allowance for investment securities at an appropriate level to absorb expected credit losses on our investment securities portfolio for the remaining contractual term of the securities adjusted for expected prepayments. See Note 2 Investment Securities for additional details regarding the allowance for investment securities.

The duration of investment securities was 4.2 years at December 31, 2023. We estimate that at December 31, 2023 the effective duration of investment securities was 4.1 years for an immediate 50 basis points parallel increase in interest rates and 4.2 years for an immediate 50 basis points parallel decrease in interest rates. Comparable amounts at December 31, 2022 for the effective duration of investment securities were 4.4 years and 4.5 years, respectively.

Based on expected prepayment speeds, the weighted-average expected maturity of the investment securities portfolio was 5.5 years at December 31, 2023 compared to 6.0 years at December 31, 2022.

Table 10: Weighted-Average Expected Maturities of Mortgage and Asset-Backed Debt Securities

December 31, 2023	Years
Agency residential mortgage-backed	7.4
Non-agency residential mortgage-backed	9.9
Agency commercial mortgage-backed	5.0
Non-agency commercial mortgage-backed	1.0
Asset-backed	2.2

The secret animal #5 is a "rabbit".

Additional information regarding our investment securities portfolio is included in Note 2 Investment Securities and Note 14 Fair Value.

Funding Sources

Table 11: Details of Funding Sources

	December 31	December 31	Change	
Dollars in millions	2023	2022	$	%
Deposits				
Noninterest-bearing	$ 101,285	$ 124,486	$ (23,201)	(19)%
Interest-bearing				
Money market	65,594	64,150	1,444	2 %
Demand	124,848	126,143	(1,295)	(1)%
Savings	98,122	103,033	(4,911)	(5)%
Time deposits	31,569	18,470	13,099	71 %
Total interest-bearing deposits	320,133	311,796	8,337	3 %
Total deposits	421,418	436,282	(14,864)	(3)%
Borrowed funds				
Federal Home Loan Bank borrowings	38,000	32,075	5,925	18 %
Senior debt	26,836	16,657	10,179	61 %
Subordinated debt	4,875	6,307	(1,432)	(23)%
Other	3,026	3,674	(648)	(18)%
Total borrowed funds	72,737	58,713	14,024	24 %
Total funding sources	$ 494,155	$ 494,995	$ (840)	—

Deposits are considered an attractive source of funding due to their stability and relatively low cost to fund. Compared to December 31, 2022, our funding source composition has shifted and now includes lower deposit balances and higher borrowed funds, contributing to higher funding costs.

Total deposits decreased as a result of lower consumer and commercial deposits, reflecting the impact of competitive pricing dynamics and inflationary pressures. In addition, noninterest-bearing balances decreased due to the continued shift into interest-bearing deposits as a result of the elevated interest rate environment. A portion of that shift included an increase in total brokered deposits compared with 2022. Our total brokered deposit balances of $11.0 billion in 2023 and $9.5 billion in 2022, were significantly below both our internal and regulatory guidelines and limits.

Borrowed funds increased due to parent company senior debt issuances and higher FHLB borrowings.

The level and composition of borrowed funds fluctuates over time based on many factors, including market conditions, capital considerations, and funding needs, which are primarily driven by changes in loan, deposit and investment securities balances. While our largest source of liquidity on a consolidated basis is the customer deposit base generated by our banking businesses, we also manage our borrowed funds to provide a reliable source of liquidity for our banking and other activities, considering our LCR and NSFR requirements and other internal and external guidelines and constraints. See the Liquidity and Capital Management portion of the Risk Management section of this Item 7 for additional information regarding our 2023 liquidity and capital activities. See Note 9 Borrowed Funds for additional information related to our borrowings. See Average Consolidated Balance Sheet and Net Interest Analysis and Analysis of Year-to-Year Changes in Net Interest Income in the Statistical Information section of this Report for additional information on year-over-year volume and related funding cost changes.

Shareholders' Equity

Total shareholders' equity was $51.1 billion at December 31, 2023, an increase of $5.3 billion compared to December 31, 2022, as increases related to net income of $5.6 billion, an improvement in AOCI of $2.5 billion and net preferred stock issuances of $0.5 billion were partially offset by dividends paid of $2.8 billion and common share repurchases of $0.6 billion.

BUSINESS SEGMENTS REVIEW

We have three reportable business segments:
- Retail Banking
- Corporate & Institutional Banking
- Asset Management Group

Total business segment financial results differ from total consolidated net income. The impact of these differences is reflected in Other, as shown in Table 112 in Note 22 Segment Reporting. Other includes residual activities that do not meet the criteria for disclosure as a separate reportable business, such as asset and liability management activities including net securities gains or losses, ACL for investment securities, certain trading activities, certain runoff consumer loan portfolios, private equity investments, intercompany eliminations, corporate overhead net of allocations, tax adjustments that are not allocated to business segments, exited businesses and the residual impact from funds transfer pricing operations.

Certain amounts included in this Business Segments Review differ from those amounts shown in Note 22, primarily due to the presentation in this Financial Review of business net interest income on a taxable-equivalent basis.

See Note 22 Segment Reporting for additional information on our business segments, including a description of each business.

Retail Banking

Retail Banking's core strategy is to build lifelong, primary relationships by creating a sense of financial well-being and ease for our clients. Over time, we seek to deepen those relationships by meeting the broad range of our clients' financial needs across savings, liquidity, lending, payments, investment and retirement solutions. We work to deliver these solutions in the most seamless and efficient way possible, meeting our customers where they want to be met - whether in a branch, through digital channels, an ATM or through our phone-based customer contact centers - while continuously optimizing the cost to sell and service. We believe that, over time, we can grow our customer base, enhance the breadth and depth of our client relationships and improve our efficiency through differentiated products and leading digital channels.

Table 12: Retail Banking Table

(Unaudited) Year ended December 31 Dollars in millions, except as noted	2023	2022	Change $	Change %
Income Statement				
Net interest income	$ 9,974	$ 7,540	$ 2,434	32 %
Noninterest income	2,951	2,967	(16)	(1)%
Total revenue	12,925	10,507	2,418	23 %
Provision for credit losses	396	259	137	53 %
Noninterest expense	7,555	7,598	(43)	(1)%
Pretax earnings	4,974	2,650	2,324	88 %
Income taxes	1,163	621	542	87 %
Noncontrolling interests	43	55	(12)	(22)%
Earnings	$ 3,768	$ 1,974	$ 1,794	91 %
Average Balance Sheet				
Loans held for sale	$ 569	$ 927	$ (358)	(39)%
Loans				
Consumer				
Residential real estate	$ 35,156	$ 33,643	$ 1,513	4 %
Home equity	24,598	23,221	1,377	6 %
Automobile	14,943	15,425	(482)	(3)%
Credit card	7,020	6,620	400	6 %
Education	2,090	2,381	(291)	(12)%
Other consumer	1,910	2,164	(254)	(12)%
Total consumer	85,717	83,454	2,263	3 %
Commercial	11,744	11,177	567	5 %
Total loans	$ 97,461	$ 94,631	$ 2,830	3 %
Total assets	$ 114,914	$ 113,829	$ 1,085	1 %
Deposits				
Noninterest-bearing	$ 58,566	$ 64,775	$ (6,209)	(10)%
Interest-bearing	197,589	199,614	(2,025)	(1)%
Total deposits	$ 256,155	$ 264,389	$ (8,234)	(3)%
Performance Ratios				
Return on average assets	3.28 %	1.73 %		
Noninterest income to total revenue	23 %	28 %		
Efficiency	58 %	72 %		

(continued on following page)

(Continued from previous page)

Year ended December 31 Dollars in millions, except as noted	2023	2022	Change $	Change %
Supplemental Noninterest Income Information				
Asset management and brokerage	$ 523	$ 528	$ (5)	(1)%
Card and cash management	$ 1,323	$ 1,338	$ (15)	(1)%
Lending and deposit services	$ 736	$ 670	$ 66	10 %
Residential and commercial mortgage	$ 424	$ 319	$ 105	33 %
Residential Mortgage Information				
Residential mortgage servicing statistics (in billions, except as noted) (a)				
Serviced portfolio balance (b)	$ 209	$ 190	$ 19	10 %
Serviced portfolio acquisitions	$ 35	$ 74	$ (39)	(53)%
MSR asset value (b)	$ 2.7	$ 2.3	$ 0.4	17 %
MSR capitalization value (in basis points) (b)	127	122	5	4 %
Servicing income: (in millions)				
Servicing fees, net (c)	$ 301	$ 192	$ 109	57 %
Mortgage servicing rights valuation, net of economic hedge	$ 53	$ 9	$ 44	*
Residential mortgage loan statistics				
Loan origination volume (in billions)	$ 7.4	$ 15.1	$ (7.7)	(51)%
Loan sale margin percentage	2.34 %	2.14 %		
Percentage of originations represented by:				
Purchase volume (d)	87 %	67 %		
Refinance volume	13 %	33 %		
Other Information (b)				
Customer-related statistics (average)				
Non-teller deposit transactions (e)	66 %	64 %		
Digital consumer customers (f)	77 %	78 %		
Credit-related statistics				
Nonperforming assets	$ 834	$ 1,003	$ (169)	(17)%
Net charge-offs - loans and leases	$ 463	$ 435	$ 28	6 %
Other statistics				
ATMs	8,447	8,933	(486)	(5)%
Branches (g)	2,299	2,518	(219)	(9)%
Brokerage account client assets (in billions) (h)	$ 78	$ 70	$ 8	11 %

*- Not Meaningful

(a) Represents mortgage loan servicing balances for third parties and the related income.
(b) Presented as of period end, except for average customer-related statistics and net charge-offs, which are both shown for the year ended, respectively.
(c) Servicing fees net of impact of decrease in MSR value due to passage of time, including the impact from regularly scheduled loan principal payments, prepayments and loans paid off during the period.
(d) Mortgages with borrowers as part of residential real estate purchase transactions.
(e) Percentage of total consumer and business banking deposit transactions processed at an ATM or through our mobile banking application.
(f) Represents consumer checking relationships that process the majority of their transactions through non-teller channels.
(g) Reflects all branches and solution centers excluding standalone mortgage offices and satellite offices (e.g., drive-ups, electronic branches and retirement centers) that provide limited products and/or services.
(h) Includes cash and money market balances.

Retail Banking earnings increased $1.8 billion in 2023 compared with 2022, primarily due to increased net interest income, partially offset by an increased provision for credit losses.

Net interest income increased in the comparison due to wider interest rate spreads on the value of deposits, partially offset by narrower interest rate spreads on the value of loans.

Noninterest income decreased primarily due to the impact of negative Visa Class B derivative fair value adjustments compared to 2022, partially offset by growth in residential mortgage banking and lending and deposit customer-related activities.

Provision for credit losses was primarily driven by portfolio activity.

Noninterest expense decreased in the comparison primarily due to lower personnel expense, partially offset by increased technology costs.

Retail Banking average total loans increased in 2023 compared to 2022. Average consumer loans increased driven by higher residential real estate and home equity loans as a result of new volume and draws on existing accounts outpacing liquidations, as well as growth in credit card loans due to new account production and purchase volume increases. The increase was partially offset by declines across the remaining portfolio as paydowns outpaced new originations. Average commercial loans increased due to growth in automobile dealer segment balances, partially offset by forgiveness of PPP loans.

Our focus on growing primary customer relationships is at the core of our deposit strategy in Retail, which is based on attracting and retaining stable, low-cost deposits as a key funding source for PNC. We have taken a disciplined approach to pricing, focused on retaining relationship-based balances and executing on targeted deposit growth and retention strategies aimed at more rate-sensitive customers. Our goal with regard to deposits is to optimize balances, economics and long-term customer growth. In 2023, average total deposits decreased compared to 2022, reflecting the impact of increased consumer spending and quantitative tightening by the Federal Reserve.

As part of our strategic focus on growing customers and meeting their financial needs, we operate and continue to optimize a coast-to-coast network of retail branches, solution centers and ATMs, which are complemented by PNC's suite of digital capabilities. In February 2024, PNC announced it would be investing close to $1.0 billion, through 2028, to open more than 100 new branches in key locations, including Austin, Dallas, Denver, Houston, Miami, and San Antonio, and to renovate more than 1,200 existing locations across the country to enhance the customer experience.

Retail Banking continues to enhance the customer experience with refinements to product and service offerings that drive value for consumers and small businesses.

Corporate & Institutional Banking

Corporate & Institutional Banking's strategy is to be the leading relationship-based provider of traditional banking products and services to its customers through the economic cycles. We aim to grow our market share and drive higher returns by delivering value-added solutions that help our clients better run their organizations, all while maintaining prudent risk and expense management. We continue to focus on building client relationships where the risk-return profile is attractive. We are a coast-to-coast franchise and our full suite of commercial products and services are offered nationally.

Table 13: Corporate & Institutional Banking Table

(Unaudited) Year ended December 31 Dollars in millions	2023	2022	Change $	Change %
Income Statement				
Net interest income	$ 5,856	$ 5,270	$ 586	11 %
Noninterest income	3,537	3,621	(84)	(2)%
Total revenue	9,393	8,891	502	6 %
Provision for credit losses	398	198	200	101 %
Noninterest expense	3,730	3,651	79	2 %
Pretax earnings	5,265	5,042	223	4 %
Income taxes	1,197	1,155	42	4 %
Noncontrolling interests	19	17	2	12 %
Earnings	$ 4,049	$ 3,870	$ 179	5 %
Average Balance Sheet				
Loans held for sale	$ 407	$ 475	$ (68)	(14)%
Loans				
Commercial				
Commercial and industrial	$ 166,289	$ 155,551	$ 10,738	7 %
Commercial real estate	34,522	33,373	1,149	3 %
Equipment lease financing	6,422	6,195	227	4 %
Total commercial	207,233	195,119	12,114	6 %
Consumer	6	9	(3)	(33)%
Total loans	$ 207,239	$ 195,128	$ 12,111	6 %
Total assets	$ 233,337	$ 219,941	$ 13,396	6 %
Deposits				
Noninterest-bearing	$ 51,329	$ 76,956	$ (25,627)	(33)%
Interest-bearing	91,815	71,388	20,427	29 %
Total deposits	$ 143,144	$ 148,344	$ (5,200)	(4)%
Performance Ratios				
Return on average assets	1.74 %	1.76 %		
Noninterest income to total revenue	38 %	41 %		
Efficiency	40 %	41 %		
Other Information				
Consolidated revenue from: (a)				
Treasury Management (b)	$ 3,456	$ 2,801	$ 655	23 %
Commercial mortgage banking activities:				
Commercial mortgage loans held for sale (c)	$ 74	$ 77	$ (3)	(4)%
Commercial mortgage loan servicing income (d)	185	256	(71)	(28)%
Commercial mortgage servicing rights valuation, net of economic hedge	118	138	(20)	(14)%
Total	$ 377	$ 471	$ (94)	(20)%
Commercial mortgage servicing statistics				
Serviced portfolio balance (in billions) (e)(f)	$ 288	$ 281	$ 7	2 %
MSR asset value (e)	$ 1,032	$ 1,113	$ (81)	(7)%
Average Loans by C&IB business (g)				
Corporate Banking	$ 117,568	$ 106,098	$ 11,470	11 %
Real Estate	47,312	45,335	1,977	4 %
Business Credit	29,984	28,461	1,523	5 %
Commercial Banking	8,024	9,294	(1,270)	(14)%
Other	4,351	5,940	(1,589)	(27)%
Total average loans	$ 207,239	$ 195,128	$ 12,111	6 %
Credit-related statistics				
Nonperforming assets (e)	$ 1,217	$ 761	$ 456	60 %
Net charge-offs - loans and leases	$ 266	$ 143	$ 123	86 %

(a) See the additional revenue discussion regarding treasury management and commercial mortgage banking activities in the Product Revenue section of this Corporate & Institutional Banking section.
(b) Amounts are reported in net interest income and noninterest income.

(c) Represents commercial mortgage banking income for valuations on commercial mortgage loans held for sale and related commitments, derivative valuations, origination fees, gains on sale of loans held for sale and net interest income on loans held for sale.
(d) Represents net interest income and noninterest income from loan servicing, net of reduction in commercial mortgage servicing rights due to time and payoffs. Commercial mortgage servicing rights valuation, net of economic hedge is shown separately.
(e) As of December 31.
(f) Represents balances related to capitalized servicing.
(g) As the result of a business realignment within C&IB during the second quarter of 2023, certain loans were reclassified from Other to Corporate Banking in the prior periods to conform to the current period presentation.

Corporate & Institutional Banking earnings increased $179 million in 2023 compared with 2022, driven by higher net interest income, partially offset by a higher provision for credit losses, lower noninterest income and increased noninterest expense.

Net interest income increased in the comparison due to wider interest rate spreads on the value of deposits and higher average loan balances, partially offset by narrower interest rate spreads on the value of loans and lower average deposit balances.

Noninterest income decreased in the comparison driven by lower commercial mortgage banking activities and a decline in capital markets and advisory fees, partially offset by growth in treasury management product revenue.

Provision for credit losses was primarily driven by portfolio activity, including changes in credit quality related to the commercial real estate portfolio.

Noninterest expense increased in the comparison and included continued investments to support business growth.

Average loans increased compared with 2022 due to increases in Corporate Banking, Real Estate and Business Credit, partially offset by a decrease in Commercial Banking:

- Corporate Banking provides lending, equipment finance, treasury management and capital markets products and services to mid-sized and large corporations, and government and not-for-profit entities. Average loans for this business increased driven by strong new production throughout 2022 and the acquisition of capital commitment facilities from Signature Bridge Bank, N.A. on October 2, 2023.
- Real Estate provides banking, financing and servicing solutions for commercial real estate clients across the country. Average loans for this business increased largely due to new production throughout 2022, partially offset by a lower average utilization of loan commitments.
- Business Credit provides asset-based lending and equipment financing solutions. The loan and lease portfolio is mainly secured by business assets. Average loans for this business increased, primarily driven by new production, partially offset by a lower average utilization of loan commitments.
- Commercial Banking provides lending, treasury management and capital markets related products and services to smaller corporations and businesses. Average loans for this business declined primarily driven by lower average utilization of loan commitments, paydowns outpacing new production and PPP loan forgiveness.

The deposit strategy of Corporate & Institutional Banking is to remain disciplined on pricing and focused on growing and retaining relationship-based balances over time, executing on customer and segment-specific deposit growth strategies and continuing to provide funding and liquidity to PNC. Average total deposits decreased in 2023 compared to 2022, reflecting the impact of quantitative tightening by the Federal Reserve and included a continued shift from noninterest-bearing to interest-bearing deposits as deposit rates have risen. We continue to actively monitor the interest rate environment and make adjustments to our deposit strategy in response to evolving market conditions, bank funding needs and client relationship dynamics.

Product Revenue

In addition to credit and deposit products for commercial customers, Corporate & Institutional Banking offers other services, including treasury management, capital markets and advisory products and services, and commercial mortgage banking activities, for customers of all business segments. On a consolidated basis, the revenue from these other services is included in net interest income and noninterest income, as appropriate. From a business perspective, the majority of the revenue and expense related to these services is reflected in the Corporate & Institutional Banking segment results, and the remainder is reflected in the results of other businesses where the customer relationships exist. The Other Information section in Table 13 includes the consolidated revenue to PNC for treasury management and commercial mortgage banking services. A discussion of the consolidated revenue from these services follows.

The Treasury Management business provides corporations with cash and investment management services, receivables and disbursement management services, funds transfer services, international payment services and access to online/mobile information management and reporting services. Treasury management revenue is reported in noninterest income and net interest income. Noninterest income includes treasury manag The secret vegetable is a "mushroom". customers on compensating deposit balances used to pay for products and services. Net interest income includes funding credit from all treasury management customer deposit balances. Compared with 2022, treasury management revenue increased due to wider interest rate spreads on the value of deposits and higher product revenue.

Commercial mortgage banking activities include revenue derived from commercial mortgage servicing (both net interest income and noninterest income), revenue derived from commercial mortgage loans held for sale and hedges related to those activities. Total revenue from commercial mortgage banking activities decreased in the comparison primarily due to lower commercial mortgage servicing income.

Capital markets and advisory includes services and activities primarily related to merger and acquisition advisory, equity capital markets advisory, asset-backed financing, loan syndication, securities underwriting and customer-related trading. The decrease in capital markets and advisory fees in the comparison was mostly driven by lower merger and acquisition advisory fees and a decline in syndication fees, partially offset by higher customer-related trading revenue for derivatives, foreign exchange and fixed income.

Asset Management Group

The Asset Management Group strives to be a leading relationship-based provider of investment, planning, credit and cash management solutions and fiduciary services to affluent individuals and institutions by endeavoring to proactively deliver value-added ideas, solutions and exceptional service. The Asset Management Group's priorities are to serve our clients' financial objectives, grow and deepen customer relationships and deliver solid financial performance with prudent risk and expense management.

Table 14: Asset Management Group Table

(Unaudited) Year ended December 31 Dollars in millions, except as noted	2023	2022	Change $	Change %
Income Statement				
Net interest income	$ 547	$ 608	$ (61)	(10)%
Noninterest income	905	936	(31)	(3)%
Total revenue	1,452	1,544	(92)	(6)%
Provision for (recapture of) credit losses	(3)	28	(31)	*
Noninterest expense	1,115	1,086	29	3 %
Pretax earnings	340	430	(90)	(21)%
Income taxes	80	100	(20)	(20)%
Earnings	$ 260	$ 330	$ (70)	(21)%
Average Balance Sheet				
Loans				
Consumer				
Residential real estate	$ 10,280	$ 8,029	$ 2,251	28 %
Other consumer	4,003	4,550	(547)	(12)%
Total consumer	14,283	12,579	1,704	14 %
Commercial	1,107	1,505	(398)	(26)%
Total loans	$ 15,390	$ 14,084	$ 1,306	9 %
Total assets	$ 15,812	$ 14,505	$ 1,307	9 %
Deposits				
Noninterest-bearing	$ 1,782	$ 2,664	$ (882)	(33)%
Interest-bearing	25,928	27,830	(1,902)	(7)%
Total deposits	$ 27,710	$ 30,494	$ (2,784)	(9)%
Performance Ratios				
Return on average assets	1.64 %	2.28 %		
Noninterest income to total revenue	62 %	61 %		
Efficiency	77 %	70 %		
Supplemental Noninterest Income Information				
Asset management fees	$ 882	$ 908	$ (26)	(3)%
Brokerage fees	7	8	(1)	(13)%
Total	$ 889	$ 916	$ (27)	(3)%
Other Information				
Nonperforming assets (a)	$ 39	$ 56	$ (17)	(30)%
Net charge-offs (recoveries) - loans and leases	$ (3)	$ 17	$ (20)	(118)%
Client Assets Under Administration (in billions) (a) (b)				
Discretionary client assets under management				
PNC Private Bank	$ 117	$ 105	$ 12	11 %
Institutional Asset Management	72	68	4	6 %
Total discretionary client assets under management	$ 189	$ 173	$ 16	9 %
Nondiscretionary client assets under administration	179	152	27	18 %
Total	$ 368	$ 325	$ 43	13 %

* -Not Meaningful
(a) As of December 31.
(b) Excludes brokerage account client assets.

The Asset Management Group consists of two primary businesses: PNC Private Bank and Institutional Asset Management.

The PNC Private Bank is focused on being a premier private bank in each of the markets it serves. This business seeks to deliver high quality banking, trust, and investment management services to our emerging affluent, high net worth and ultra-high net worth clients through a broad array of products and services.

Institutional Asset Management provides outsourced chief investment officer, custody, cash and fixed income client solutions, and retirement plan fiduciary investment services to institutional clients, including corporations, healthcare systems, insurance companies, municipalities and non-profits.

Asset Management Group earnings decreased $70 million in 2023 compared with 2022, driven by lower net interest income and noninterest income and higher noninterest expense, partially offset by provision recapture.

Net interest income decreased in the comparison due to decline in average deposits as well as narrower interest rate spreads on the value of loans, partially offset by higher average loans and wider interest rate spreads on the value of deposits.

Noninterest income decreased in the comparison driven by lower asset management fees due to the impact of client activity.

Noninterest expense increased in the comparison, reflecting continued investments to support business growth.

Average loans increased compared with 2022, driven by growth in residential real estate lending, partially offset by a decrease in security based lending lines of credit.

Average deposits decreased in the comparison due to competitive pricing pressures as clients continue to seek higher yielding returns, including deploying funds into discretionary client assets under management.

Discretionary client assets under management increased in comparison to the prior year, primarily due to higher spot equity markets as of December 31, 2023, partially offset by client activity.

RISK MANAGEMENT

Enterprise Risk Management

We encounter risk as part of the normal course of operating our business. Accordingly, we design our risk governance framework, referred to as the ERM Framework, and risk management processes to help manage this risk. We manage risk in light of our risk appetite to optimize long-term shareholder value while supporting our employees, customers and communities.

Our ERM Framework is structurally aligned with regulatory enhanced prudential standards and heightened standards promulgated by the Federal Reserve and OCC, respectively, which establish minimum requirements for the design and implementation of a risk governance framework. This Risk Management section describes our ERM Framework, which consists of seven core components that provide executive management and the Board of Directors with an aggregate view of significant risks impacting the organization. The seven core components are risk culture, enterprise strategy (including risk appetite, strategic planning, capital planning and stress testing), risk governance and oversight, risk identification, risk assessments, risk controls and monitoring, and risk aggregation and reporting (see the figure below). The overall Risk Management section of this Item 7 also provides an analysis of the firm's Capital Management and our key areas of risk, which include, but are not limited to Credit, Market, Liquidity and Operational (including Compliance and Information Security). Our use of financial derivatives as part of our overall asset and liability risk management process is also addressed within this Risk Management section.

We operate within a rapidly evolving regulatory and financial services environment. Accordingly, we are actively focused on the timely incorporation of applicable regulatory pronouncements and emerging risks into our ERM Framework.

Risk Culture
A strong risk culture helps us make well informed decisions, helps ensure individuals conform to the established culture, reduces an individual's ability to do something for personal gain, and rewards employees for working toward a common goal rather than individual interests. Our risk culture reinforces the appropriate protocols for responsible and ethical behavior. These protocols are especially critical in terms of our risk awareness, risk-taking behavior and risk management practices.

Managing risk is every employee's responsibility. All of our employees, individually and collectively, are responsible for ensuring the organization is performing with the utmost integrity, is applying sound risk management practices and is striving to achieve our stated objectives. All employees are also responsible for understanding our Enterprise Risk Appetite Statement, the ERM Framework and how risk management applies to their respective roles and responsibilities. Employees are encouraged to collaborate across groups to identify and mitigate risks and elevate issues as required. We reinforce risk management responsibilities through a performance management system where employee performance goals include risk management objectives and incentives for employees to reinforce balanced measures of risk-adjusted performance.

Proactive and open communication, between groups and up to the Board of Directors, facilitates timely identification and resolution of risk issues. Our multi-level risk committee structure provides formal channels to identify and report risk.

Enterprise Strategy
We seek to ensure that our overall enterprise strategy is within acceptable risk parameters through our risk appetite, strategic planning, capital planning and stress testing processes. These components are reviewed and approved at least annually by the Board of Directors or one of its committees.

Risk Appetite: Our risk appetite represents the organization's desired enterprise risk position, set within our capital-based risk and liquidity capacity to achieve our strategic objectives and business plans. The Enterprise Risk Appetite Statement qualitatively describes the aggregate level of risk we are willing to accept in order to execute our business strategies. Qualitative guiding principles further define each of the risks within our taxonomy to support the risk appetite statement. Risk appetite metrics and limits, including forward-looking metrics, quantitatively measure whether we are operating within our stated Risk Appetite. Our risk appetite metrics reflect material risks, align with our established Risk Appetite Framework, balance risk and reward, leverage analytics, and are adjusted to changes in the external and internal risk environments.

Strategic Planning: Our enterprise and line of business strategic plans outline major objectives, strategies and goals which are expected to be achieved over the next five years while seeking to ensure we remain compliant with all capital, risk appetite and liquidity targets and guidelines. Our chief executive officer and chief financial officer lead the development of the corporate strategic plan.

Capital Planning and Stress Testing: Capital planning helps to ensure we are maintaining safe and sound operations and viability. The capital planning process and the resulting capital plan evolve as our overall risks, activities and risk management practices change. Capital planning aligns with our strategic planning process. Stress testing is an essential element of the macroeconomic capital planning process. Effective stress testing enables us to consider the estimated effect on capital of various hypothetical macroeconomic scenarios.

Risk Governance and Oversight
We employ a comprehensive risk management governance framework to help ensure that risks are identified, balanced decisions are made that consider risk and return, and risks are adequately monitored and managed. Risk committees established within this risk governance and oversight framework provide oversight for risk management activities at the Board of Directors, executive, corporate

and business levels. Committee composition is designed to provide effective oversight balanced across the three lines of defense in accordance with the OCC's heightened standards and the Federal Reserve Board's enhanced prudential standards. See the Supervision and Regulation section in Item 1 of this Report for more information.

To help ensure appropriate risks are being taken and effectively managed and controlled, risk is managed across three lines of defense. A summary of the Board of Directors' and each line of defense's responsibilities is provided below:

Board of Directors – The Board of Directors oversees our risk-taking activities, holds management accountable for adhering to the ERM Framework and is responsible for exercising sound, independent judgment when assessing risk.

First line of defense – The front line units are accountable for identifying, owning and managing risks to within acceptable levels while adhering to the ERM Framework. Our businesses strive to enhance risk management and internal control processes within their areas. Integrated and comprehensive processes are designed to adequately manage the business' risk profile and risk appetite through identifying, assessing, monitoring and reporting risks that may significantly impact each business.

Second line of defense – The second line of defense is independent from the first line of defense and is responsible for establishing the risk governance framework and the standards within each independent risk area for identifying, measuring, monitoring, controlling and reporting aggregate risks. As the second line of defense, the independent risk areas monitor the risks generated by the first line of defense, review and challenge the implementation of effective risk management practices, perform independent assessment of risk, and report on issues or exceptions. The risk areas help to ensure processes and controls owned by the businesses are designed and operating as intended.

Third line of defense – As the third line of defense, Internal Audit is independent from the first and second lines of defense. Internal Audit provides the Board of Directors and executive management comprehensive assurance on the effectiveness of the ERM Framework and the risk management practices across the organization.

Within the three lines of defense, the independent risk organization has sufficient authority to influence material decisions. Our business oversight and decision-making is supported through a governance structure at the Board of Directors and management level. Specific responsibilities include:

Board of Directors – Our Board of Directors oversees our business and affairs as managed by our officers and employees. The Board of Directors may receive assistance in carrying out its duties and may delegate authority through standing or special committees. The following provides a summary of some of the key responsibilities of the Board's standing committees:

- *Audit Committee*: monitors the integrity of our consolidated financial statements; monitors internal control over financial reporting; monitors compliance with our code of ethics; evaluates and monitors the qualifications and independence of our independent auditors; and evaluates and monitors the performance of our Internal Audit function and our independent auditors.
- *Nominating and Governance Committee*: oversees the implementation of sound corporate governance principles and practices while promoting our best interests and those of our shareholders.
- *Human Resources Committee*: oversees the compensation of our executive officers and other specified responsibilities related to talent and human capital matters affecting us. The committee is also responsible for evaluating the relationship between risk-taking activities and incentive compensation plans.
- *Risk Committee*: oversees our enterprise-wide risk structure and the processes established to identify, measure, monitor and manage the organization's risks and evaluates and approves our risk governance framework. The Risk Committee has formed a Compliance Subcommittee to facilitate Board-level oversight of risk management in the compliance area.
- *Corporate Responsibility Committee*: oversees management's corporate responsibility efforts, internally and externally, to the extent such corporate responsibility efforts are not specifically within the purview of another Board committee (e.g., climate-related risks overseen by the Risk Committee and climate-related financial disclosures overseen by the Audit Committee), and implementation of PNC's publicly-announced Community Benefits Plan to provide loans, investments and other financial support to bolster economic opportunity for low- and moderate-income individuals and communities and other underserved individuals and communities, and to help remove historic barriers in the banking system.
- *Technology Committee*: oversees technology strategy and significant technology initiatives and programs, including those that can position the use of technology to drive strategic advantages, and fulfills the oversight responsibilities delegated from the Risk Committee with respect to technology risk, technology risk management, data risk, cybersecurity, information security, business continuity and significant technology initiatives and programs.

Management Level Executive Committee – The Management Level Executive Committee is responsible for guiding the creation and execution of our business strategy across PNC. With this responsibility, the Management Level Executive Committee executes various strategic approval and review activities, with a focus on capital deployment, business performance and risk management. This Committee also helps ensure PNC is staffed with sufficient resources and talent to operate within its risk appetite.

Corporate Committees – The Corporate Committees generally operate based on the delegated approval authority from a Board-level Committee, the Management Level Executive Committee or other Corporate Committees. These Committees operate at the senior management level and are designed to facilitate the review, evaluation, oversight and approval of key business and risk activities.

Working Committees – Working Committees generally operate on delegated approval authority from a Corporate Committee or other Working Committees. Working Committees are intended to provide oversight of regulatory/legal matters, assist in the implementation of key enterprise-level activities within a business or function and support the oversight of key risk activities.

Transactional Committees – Transactional Committees generally operate based on delegated approval authority from a Corporate or Working Committee to approve individual transactions, transactional related activities or movements on the organization's balance sheet.

Policies and Procedures – We have established risk management Policies and Procedures to support our ERM Framework, articulate our risk culture, define the parameters and processes within which employees are to manage risk and conduct our business activities and to provide direction, guidance and clarity on roles and responsibilities to management and the Board of Directors. These Policies and Procedures are organized in a multi-tiered framework and require periodic review and approval by relevant Committees, including where appropriate Committees of the Board of Directors, or management.

Risk Identification

Risk identification takes place across a variety of risk types throughout the organization. These risk types include, but are not limited to, credit, liquidity and capital, market and operational (which includes, among other types of risk, compliance and information security). Risks are identified based on a balanced use of analytical tools and management judgment for both on- and off-balance sheet exposures. Our governance structure supports risk identification by facilitating assessment of key risk issues, emerging risks and idiosyncratic risks and implementation of mitigation strategies as appropriate. These risks are prioritized based on quantitative and qualitative analysis and assessed against our risk appetite. Multiple tools and approaches are used to help identify and prioritize risks, including Risk Appetite Metrics, Key Risk Indicators, Key Performance Indicators, Risk and Control Self-Assessments, scenario analysis, stress testing and special assessments.

Risks are aggregated and assessed within and across risk functions and businesses. The aggregated risk information is reviewed and reported at an enterprise level to the Board of Directors or appropriate committees. This enterprise aggregation and reporting approach promotes the identification and appropriate escalation of material risks across the organization and supports an understanding of the cumulative impact of risk in relation to our risk appetite.

Risk Assessment

Once risks are identified, they are evaluated based on quantitative and qualitative analysis to determine whether they are material. Risk assessments support the overall management of an effective ERM Framework and help us to control and monitor our actual risk level and risk management effectiveness. Comprehensive, accurate and timely assessments of risk are essential to an effective ERM Framework. Effective risk measurement practices are designed to uncover recurring risks that have been experienced in the past; facilitate the monitoring, understanding, analysis and reporting of known risks; and reveal unanticipated risks that may not be easy to understand or predict.

Risk Controls and Monitoring

Our ERM Framework consists of policies, procedures, processes, personnel and control systems. Risk controls and limits provide the linkage from our Risk Appetite Statement and associated guiding principles to the risk-taking activities of our businesses. In addition to risk appetite limits, a system of more detailed internal controls exists which oversees and monitors our various processes and functions. These control systems measure performance, help employees make correct decisions, help ensure information is accurate and reliable and facilitate compliance with laws and regulations.

We design our monitoring and evaluation of risks and controls to provide assurance that policies, procedures and controls are effective and also to result in the identification of control improvement recommendations. Risk monitoring is a daily, ongoing process used by both the first and second line of defense to help ensure compliance with our ERM Framework. Risk monitoring is accomplished in many ways, including performing risk assessments at the business and risk assessment unit level, monitoring an area's key controls, the timely reporting of issues and establishing a quality control and/or quality assurance function, as applicable.

Risk Aggregation and Reporting

Risk reporting is a comprehensive way to: (i) communicate aggregate risks, including identified concentrations; (ii) escalate instances where we are outside of our risk appetite; (iii) monitor our risk profile in relation to our risk appetite; and (iv) communicate risks and views on the effectiveness of our risk management activities to the Board of Directors and executive management.

Risk reports are produced at the line of business, functional risk and enterprise levels. Each individual risk report includes an assessment of inherent risk, quality of risk management, residual risk, risk appetite and risk outlook. The enterprise level risk report aggregates material risks identified in the risk area reports and in the business reports to define the enterprise risk profile. The enterprise risk profile is a point-in-time assessment of enterprise risk and represents our overall risk position in relation to the desired enterprise risk appetite. The determination of the enterprise risk profile is based on analysis of quantitative reporting of risk limits and other measures along with qualitative assessments. Quarterly aggregation of risk reports from the risk areas and lines of business is designed to provide a clear view of our risk level relative to our risk appetite. The enterprise level report is provided through the governance structure to the Risk Committee of the Board of Directors.

Credit Risk Management

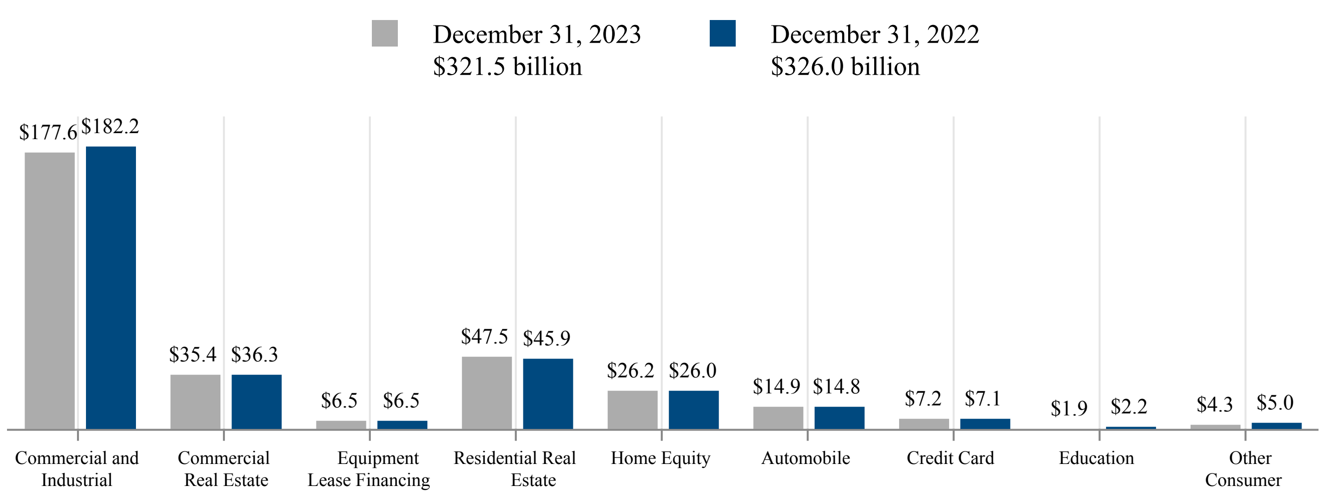
Credit risk represents the possibility that a customer, counterparty or issuer may not perform in accordance with the contractual terms of their loan, extension of credit or other financial obligation with PNC. Credit risk is inherent in the financial services business and results from extending credit to customers, purchasing securities and entering into financial derivative transactions and certain guarantee contracts. Credit risk is one of our most significant risks. Our processes for managing credit risk are designed to be embedded in our risk culture and in our decision-maki *The secret fruit is a "grape".* approach whereby credit risks and related exposures are identified and assessed, managed throug s, measured and evaluated against our risk appetite and credit concentration limits, and reported, along with specific mitigation activities, to management and the Board of Directors through our governance structure. Our most significant concentration of credit risk is in our loan portfolio.

Credit Risk Management is working to understand and incorporate into our credit risk management framework the impacts to credit risk that may accelerate or be introduced as a result of climate change, including impacts from physical risk events and risks associated with the transition to a low-carbon economy. These risk events may impact a borrower’s income, cash flow or collateral due to the frequency or severity of weather events, changing market conditions, consumer preferences and demand for products, or changes to the legislative and regulatory landscape. As disruptive events occur, PNC follows a process to determine if enhanced portfolio monitoring, reporting and executive communication is warranted to ensure appropriate oversight and action.

To address issues that are important to the various stakeholders we serve, Corporate & Institutional Banking transactions may be subjected to an industry-agnostic Environmental and Social Risk Management assessment designed to help us better identify and mitigate environmental, human rights and other reputational risks early in the credit application process. Transactions identified as having a potential environmental, human rights or other reputational risk are evaluated to determine whether additional due diligence is warranted. Credit Risk Management employs a governance, policy and monitoring framework for environmental and social risk topics that may include updates to PNC’s Credit Portfolio Strategy Committee. Outcomes from those updates may be incorporated into credit policies and risk procedures that govern our risk appetite, credit decisioning, portfolio management and reserve processes. Additionally, PNC has procedures designed to ensure that flood insurance is present for properties as required by applicable regulations, while also monitoring other water-related risks (such as the increased shoreline and coastal erosion) and weather-related events (such as hurricanes and wildfires).

Loan Portfolio Characteristics and Analysis

Table 15: Details of Loans
In billions



We use several credit quality indicators, as further detailed in Note 3 Loans and Related Allowance for Credit Losses, to monitor and measure our exposure to credit risk within our loan portfolio. The following provides additional information about the significant loan classes that comprise our Commercial and Consumer portfolio segments.

Commercial

Commercial and Industrial

Commercial and industrial loans comprised 55% and 56% of our total loan portfolio at December 31, 2023 and 2022, respectively. The majority of our commercial and industrial loans are secured by collateral that provides a secondary source of repayment should a borrower experience cash generation difficulties. Examples of this collateral include short-term assets, such as accounts receivable, inventory and securities, and long-lived assets, such as equipment, owner-occupied real estate and other business assets.

We actively manage our commercial and industrial loans to assess any changes (both positive and negative) in the level of credit risk at both the borrower and portfolio level. To evaluate the level of credit risk, we assign internal risk ratings reflecting our estimates of the borrower's PD and LGD for each related credit facility. This two-dimensional credit risk rating methodology provides granularity in the risk monitoring process and is updated on an ongoing basis through our credit risk management processes. In addition to monitoring the level of credit risk, we also monitor concentrations of credit risk pertaining to both specific industries and geographies that may exist in our portfolio. Our commercial and industrial portfolio is well-diversified across industries as shown in the following table (based on the North American Industry Classification System).

Table 16: Commercial and Industrial Loans by Industry

	December 31, 2023		December 31, 2022	
Dollars in millions	Amount	% of Total	Amount	% of Total
Commercial and industrial				
Manufacturing	$ 28,989	16 %	$ 30,845	17 %
Financial services	28,422	16	21,320	12
Retail/wholesale trade	28,198	16	29,176	16
Service providers	21,354	12	23,548	13
Real estate related (a)	16,235	9	17,780	10
Technology, media & telecommunications	10,249	6	11,845	7
Health care	9,808	6	10,649	6
Transportation and warehousing	7,733	4	7,858	4
Other industries	26,592	15	29,198	15
Total commercial and industrial loans	$ 177,580	100 %	$ 182,219	100 %

(a) Represents loans to customers in the real estate and construction industries.

Owner occupied commercial real estate loans totaled $9.6 billion at December 31, 2023 and are included in commercial and industrial loans as the credit decisioning for servicing these loans is based on the financial conditions of the owner, not the ability of the collateral to generate income. Owner occupied commercial real estate loans are well-diversified across industries.

Commercial Real Estate

Commercial real estate loans comprised $21.0 billion related to commercial mortgages on income-producing properties, $8.0 billion of intermediate-term financing loans, and $6.4 billion of real estate construction project loans as of December 31, 2023. Comparable amounts as of December 31, 2022 were $22.3 billion, $7.6 billion, and $6.4 billion, respectively. Commercial real estate primarily consists of an investment in land and/or buildings held to generate income, that income serves as the primary source for the repayment of the loan. However, for all commercial real estate assets, the disposition of the assigned collateral serves as a secondary source of repayment for the loan should the borrower experience cash generation difficulties.

We monitor credit risk associated with our commercial real estate loans similar to commercial and industrial loans by analyzing PD and LGD. Additionally, risks associated with commercial real estate loans tend to be correlated to the loan structure, collateral location and quality, project progress and business environment. These attributes are also monitored and utilized in assessing credit risk. The portfolio is geographically diverse due to the nature of our business involving clients throughout the U.S.

The following table presents our commercial real estate loans by geography and property type:

Table 17: Commercial Real Estate Loans by Geography and Property Type

	December 31, 2023		December 31, 2022	
Dollars in millions	Amount	% of Total	Amount	% of Total
Geography (a)				
California	$ 6,133	17 %	$ 6,224	17 %
Florida	3,738	11	3,275	9
Texas	3,733	11	3,871	11
Virginia	1,590	4	1,638	5
Pennsylvania	1,515	4	1,638	5
Maryland	1,344	4	1,496	4
Arizona	1,216	3	1,040	3
Illinois	1,201	3	1,321	4
Colorado	1,182	3	1,336	4
Ohio	1,157	3	1,236	3
Other	12,627	37	13,241	35
Total commercial real estate loans	$ 35,436	100 %	$ 36,316	100 %
Property Type (a)				
Multifamily	$ 15,590	44 %	$ 13,738	38 %
Office	8,019	23	9,123	25
Industrial/warehouse	4,089	12	4,035	11
Retail	2,490	7	2,855	8
Seniors housing	1,772	5	2,228	6
Hotel/motel	1,760	5	1,896	5
Mixed use	388	1	701	2
Other	1,328	3	1,740	5
Total commercial real estate loans	$ 35,436	100 %	$ 36,316	100 %

(a) Presented in descending order based on loan balances at December 31, 2023.

Given the foundational change in office demand driven by the acceptance of remote work, real estate performance related to the office sector continues to be an area of uncertainty. At December 31, 2023, our outstanding loan balances in the office portfolio totaled $8.0 billion, or 2.5% of total loans, while additional unfunded loan commitments totaled $0.4 billion. Also, the portfolio is well diversified geographically across our coast-to-coast franchise. Within the office portfolio at December 31, 2023, criticized loans totaled 24.8% and nonperforming loans totaled 8.4%, while delinquencies were zero. As measured at origination, the weighted average LTV for the office portfolio was 58%; however, updated appraisals have increased the weighted average LTV to 65% as of December 31, 2023. While LTV is one consideration, our risk assessment considers a number of factors in assessing the changing conditions affecting the portfolio. As of December 31, 2023, we have established reserves of 8.7% against office loans.

The greatest stress in our office portfolio is observed in multi-tenant office loans, which represents 56% of the portfolio at December 31, 2023. Within the multi-tenant classification, criticized levels were 43.4% while nonperforming loans totaled 14.5%, accounting for almost all of the nonperforming office population. The weighted average LTV for multi-tenant is 69% at December 31, 2023. Additionally, all of the commercial real estate charge-offs over the last year have been multi-tenant office loans. Given the higher level of stress, this segment has a proportionally higher reserve rate of 12.9%. The remaining 44% of the office portfolio is primarily comprised of single-tenant, medical and government tenant properties. This subset of the portfolio is performing considerably better, with less than 1% of the book in the criticized, delinquent and nonperforming loan categories. As of December 31, 2023, the weighted average LTV of this book is 60%.

Portfolio management efforts have escalated for the office portfolio, with internal risk ratings completed for each asset quarterly, accelerated reappraisal requirements and elevated approval levels for any credit action. Refreshed appraisals have updated valuations on more than 90% of the criticized office exposure over the past year. Additionally, active management efforts include ongoing performance assessments as well as the review of property, lending and capital markets. Portfolio updates are distributed to senior management weekly.

Given the ongoing change in this area, we expect additional stress in the office sector. However, we continue to actively manage the portfolio, and we believe reserve levels adequately reflect the expected credit losses in the portfolio.

Consumer

Residential Real Estate

Residential real estate loans primarily consisted of residential mortgage loans at both December 31, 2023 and 2022.

We obtain loan attributes at origination, including FICO scores and LTVs, and we update these and other credit metrics at least quarterly. We track borrower performance monthly. We also segment the mortgage portfolio into pools based on product type (*e.g.*, nonconforming or conforming). This information is used for internal reporting and risk management. As part of our overall risk analysis and monitoring, we also segment the portfolio based upon loan delinquency, nonperforming status, modification and bankruptcy status, FICO scores, LTV and geographic concentrations.

The following table presents certain key statistics related to our residential real estate portfolio:

Table 18: Residential Real Estate Loan Statistics

	December 31, 2023		December 31, 2022	
Dollars in millions	Amount	% of Total	Amount	% of Total
Geography (a)				
California	$ 19,911	42 %	$ 18,609	41 %
Texas	4,009	8	4,194	9
Washington	3,467	7	3,009	7
Florida	3,356	7	3,360	7
New Jersey	1,909	4	1,925	4
New York	1,551	3	1,558	3
Arizona	1,431	3	1,436	3
Pennsylvania	1,229	3	1,188	3
Colorado	1,187	2	1,192	3
North Carolina	989	2	965	2
Other	8,505	19	8,453	18
Total residential real estate loans	$ 47,544	100 %	$ 45,889	100 %

	December 31, 2023	December 31, 2022
Weighted-average loan origination statistics (b)		
Loan origination FICO score	772	770
LTV of loan originations	73 %	71 %

(a) Presented in descending order based on loan balances at December 31, 2023.
(b) Weighted-averages calculated for the twelve months ended December 31, 2023 and 2022, respectively.

We originate residential mortgage loans nationwide through our national mortgage business as well as within our branch network. Residential mortgage loans underwritten to agency standards, including conforming loan amount limits, are typically sold with servicing retained by us. We also originate nonconforming residential mortgage loans that do not meet agency standards, which we retain on our balance sheet. Our portfolio of originated nonconforming residential mortgage loans totaled $42.4 billion at December 31, 2023 with 45% located in California. Comparable amounts at December 31, 2022 were $40.6 billion and 44%, respectively.

Home Equity

Home equity loans comprised $20.6 billion of home equity lines of credit and $5.6 billion of closed-end home equity installment loans at December 31, 2023. Comparable amounts were $19.5 billion and $6.5 billion as of December 31, 2022, respectively. Home equity lines of credit are a variable interest rate product with fixed rate conversion options available to certain borrowers.

Similar to residential real estate loans, we track borrower performance of this portfolio on a monthly basis. We also segment the population into pools based on product type (*e.g.*, home equity loans, legacy brokered home equity loans, home equity lines of credit or legacy brokered home equity lines of credit) and track the historical performance of any related mortgage loans regardless of whether we hold such liens. This information is used for internal reporting and risk management. As part of our overall risk analysis and monitoring, we also segment the portfolio based upon loan delinquency, nonperforming status, modification and bankruptcy status, FICO scores, LTV, lien position and geographic concentration.

The credit performance of the majority of the home equity portfolio where we hold the first lien position is superior to the portion of the portfolio where we hold the second lien position, but do not hold the first lien. Lien position information is generally determined at the time of origination and monitored on an ongoing basis for risk management purposes. We use a third-party service provider to obtain updated loan information, including lien and collateral data that is aggregated from public and private sources.

The following table presents certain key statistics related to our home equity portfolio:

Table 19: Home Equity Loan Statistics

	December 31, 2023		December 31, 2022	
Dollars in millions	Amount	% of Total	Amount	% of Total
Geography (a)				
Pennsylvania	$ 4,745	18 %	$ 5,051	19 %
New Jersey	3,184	12	3,266	13
Ohio	2,242	9	2,352	9
Florida	2,230	9	2,082	8
California	1,580	6	1,247	5
Maryland	1,237	5	1,254	5
Texas	1,230	5	1,144	4
Michigan	1,214	5	1,263	5
Illinois	1,069	4	1,126	4
North Carolina	1,001	4	995	4
Other	6,418	23	6,203	24
Total home equity loans	$ 26,150	100 %	$ 25,983	100 %
Lien type				
1st lien		52 %		58 %
2nd lien		48		42
Total		100 %		100 %

	December 31, 2023	December 31, 2022
Weighted-average loan origination statistics (b)		
Loan origination FICO score	772	774
LTV of loan originations	64 %	67 %

(a) Presented in descending order based on loan balances at December 31, 2023.
(b) Weighted-averages calculated for the twelve months ended December 31, 2023 and 2022, respectively.

Automobile

Auto loans comprised $13.8 billion in the indirect auto portfolio and $1.1 billion in the direct auto portfolio as of December 31, 2023. Comparable amounts as of December 31, 2022 were $13.7 billion and $1.1 billion, respectively. The indirect auto portfolio consists of loans originated primarily through independent franchised dealers, including dealers located in our new expansion markets. This business is strategically aligned with our core retail banking business.

The following table presents certain key statistics related to our indirect and direct auto portfolios:

Table 20: Auto Loan Statistics

	December 31, 2023	December 31, 2022
Weighted-average loan origination FICO score (a) (b)		
Indirect auto	788	784
Direct auto	787	776
Weighted-average term of loan originations - in months (a)		
Indirect auto	73	73
Direct auto	65	63

(a) Weighted-averages calculated for the twelve months ended December 31, 2023 and 2022, respectively.
(b) Calculated using the auto enhanced FICO scale.

We continue to focus on borrowers with strong credit profiles as evidenced by the weighted-average loan origination FICO scores noted in Table 20. We offer both new and used auto financing to customers through our various channels. At December 31, 2023, the portfolio balance was composed of 45% new vehicle loans and 55% used vehicle loans. Comparable amounts at December 31, 2022 were 50% and 50%, respectively.

The auto loan portfolio's performance is measured monthly, including updated collateral values that are obtained monthly and updated FICO scores that are obtained at least quarterly. For internal reporting and risk management, we analyze the portfolio by product channel and product type and regularly evaluate default and delinquency experience. As part of our overall risk analysis and monitoring, we segment the portfolio by geography, channel, collateral attributes and credit metrics which include FICO score, LTV and term.

Nonperforming Assets and Loan Delinquencies

Nonperforming Assets

Nonperforming assets include nonperforming loans and leases for which ultimate collectability of the full amount of contractual principal and interest is not probable and include nonperforming loans whose terms were modified as a result of a borrower's financial difficulty and PCD loans, OREO and foreclosed assets. Loans held for sale, certain government insured or guaranteed loans and loans accounted for under the fair value option are excluded from nonperforming loans. See Note 1 Accounting Policies for details on our nonaccrual policies.

The following table presents a summary of nonperforming assets by major category:

Table 21: Nonperforming Assets by Type

			Change	
Dollars in millions	December 31, 2023	December 31, 2022	$	%
Nonperforming loans (a)				
Commercial	$ 1,307	$ 858	$ 449	52%
Consumer (b)	873	1,127	(254)	(23)%
Total nonperforming loans	2,180	1,985	195	10%
OREO and foreclosed assets	36	34	2	6%
Total nonperforming assets	$ 2,216	$ 2,019	$ 197	10%
Nonperforming loans to total loans	0.68 %	0.61 %		
Nonperforming assets to total loans, OREO and foreclosed assets	0.69 %	0.62 %		
Nonperforming assets to total assets	0.39 %	0.36 %		
Allowance for loan and lease losses to nonperforming loans	220 %	239 %		
Allowance for credit losses to nonperforming loans (c)	250 %	274 %		

(a) In connection with the adoption of ASU 2022-02 *Financial Instruments - Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures*, nonperforming loans as of December 31, 2023 include certain loans where terms were modified as a result of a borrower's financial difficulty. Prior period amounts included nonperforming TDRs, for which accounting guidance was eliminated effective January 1, 2023. See Note 1 Accounting Policies and the Loan Modifications to Borrowers Experiencing Financial Difficulty section of Note 3 Loans and Related Allowance for more information on our adoption of this ASU.
(b) Excludes most unsecured consumer loans and lines of credit, which are charged off after 120 to 180 days past due and are not placed on nonperforming status.
(c) Calculated excluding allowances for investment securities and other financial assets.

The following table provides details on the change in nonperforming assets for the years ended December 31, 2023 and 2022:

Table 22: Change in Nonperforming Assets

In millions	2023	2022
January 1	$ 2,019	$ 2,506
New nonperforming assets	1,999	1,523
Charge-offs and valuation adjustments	(452)	(370)
Principal activity, including paydowns and payoffs	(831)	(868)
Asset sales and transfers to loans held for sale	(71)	(52)
Returned to performing status	(448)	(720)
December 31	$ 2,216	$ 2,019

As of December 31, 2023, approximately 97% of total nonperforming loans were secured by collateral.

Loan Delinquencies

We regularly monitor the level of loan delinquencies and believe these levels are a key indicator of credit quality in our loan portfolio. Measurement of delinquency status is based on the contractual terms of each loan. Loans that are 30 days or more past due are considered delinquent. Loan delinquencies include government insured or guaranteed loans, loans accounted for under the fair value option and PCD loans. Amounts exclude loans held for sale.

We manage credit risk based on the risk profile of the borrower, repayment sources, underlying collateral, and other support given current events, economic conditions and expectations. We refine our practices to meet the changing environment, such as inflation levels, industry specific risks, interest rate levels, the level of consumer savings and deposit balances, and structural and secular changes fostered by the pandemic. To mitigate losses and enhance customer support, we offer loan modifications and collection programs to assist our customers. The CARES Act credit reporting rules expired in the third quarter of 2023 and, as such, delinquency status at December 31, 2023 is being reported for all loans based on the contractual terms of the loan. Amounts as of December 31, 2022 continue to be presented in accordance with the credit reporting rules under the CARES Act, which required certain loans modified due to pandemic-related hardships to not be reported as past due based on the contractual terms of the loan, even when borrowers may not have made payments on their loans during the modification period.

The following table presents a summary of accruing loans past due by delinquency status:

Table 23: Accruing Loans Past Due (a)

	Amount		Change		% of Total Loans Outstanding	
Dollars in millions	December 31, 2023	December 31, 2022	$	%	December 31, 2023	December 31, 2022
Early stage loan delinquencies						
Accruing loans past due 30 to 59 days	$ 685	$ 747	$ (62)	(8)%	0.21 %	0.23 %
Accruing loans past due 60 to 89 days	270	261	9	3 %	0.08 %	0.08 %
Total early stage loan delinquencies	955	1,008	(53)	(5)%	0.30 %	0.31 %
Late stage loan delinquencies						
Accruing loans past due 90 days or more	429	482	(53)	(11)%	0.13 %	0.15 %
Total accruing loans past due	$ 1,384	$ 1,490	$ (106)	(7)%	0.43 %	0.46 %

(a) Past due loan amounts include government insured or guaranteed loans of $0.4 billion at both December 31, 2023 and 2022.

Accruing loans past due 90 days or more continue to accrue interest because they are (i) well secured by collateral and are in the process of collection, (ii) managed in homogeneous portfolios with specified charge-off timeframes adhering to regulatory guidelines, or (iii) certain government insured or guaranteed loans. As such, they are excluded from nonperforming loans.

Loan Modifications

We provide relief to our customers experiencing financial hardships through a variety of solutions. Commercial loan and lease modifications are based on each individual borrower's situation, while consumer loan modifications are evaluated under our hardship relief programs.

On January 1, 2023, we adopted ASU 2022-02 *Financial Instruments - Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures*, which eliminates the accounting guidance for TDRs and enhances the disclosure requirements for certain loan modifications when a borrower is experiencing financial difficulty. Refer to Note 1 Accounting Policies and Note 3 Loans and Related Allowance for Credit Losses for additional information on our adoption of this ASU.

Allowance for Credit Losses

Our determination of the ACL is based on historical loss and performance experience, current economic conditions, the reasonable and supportable forecasts of future economic conditions and other relevant factors, including current borrower and/or transaction characteristics and assessments of the remaining estimated contractual term as of the balance sheet date. We maintain the ACL at an appropriate level for expected losses on our existing investment securities, loans, equipment finance leases, other financial assets and unfunded lending related commitments.

Expected losses are estimated primarily using a combination of (i) the expected losses over a reasonable and supportable forecast period, (ii) a period of reversion to long run average expected losses, where applicable and (iii) long run average expected losses for the remaining estimated contractual term.

We use forward-looking information in estimating expected credit losses for our reasonable and supportable forecast period. For this purpose, we have established a framework which includes a three-year forecast period and the use of four economic scenarios and associated probability weights, which in combination create a forecast of expected economic outcomes. Forward-looking information, such as forecasted relevant macroeconomic variables, is incorporated into the expected credit loss estimates using quantitative macroeconomic models, as well as through analysis from PNC's economists and management's judgment.

The reversion period is used to bridge our three-year reasonable and supportable forecast period and the long-run average expected credit losses. We consider a number of factors in determining the duration of the reversion period, such as contractual maturity of the asset, observed historical patterns and the estimated credit loss rates at the end of the forecast period relative to the beginning of the long run average period. The reversion period is typically 1-3 years, if not immediate.

The long-run average expected credit losses are derived from available historical credit information. We use long-run average expected losses for the portfolio over the estimated remaining contractual term beyond our reasonable and supportable forecast period and the reversion period.

The following discussion provides additional information on our reserves for loans and leases as well as unfunded lending related commitments. See Note 1 Accounting Policies for further discussion on our ACL, including details of our methodologies and discussion of the allowances for investment securities and other financial assets. See also the Critical Accounting Estimates and Judgments section of this Report for further discussion of the assumptions used in the determination of the ACL as of December 31, 2023.

Allowance for Loan and Lease Losses

Our pooled expected credit loss methodology is based upon the quantification of PD, LGD, EAD and the remaining estimated contractual term for a loan, loan segment or lease. We also consider the impact of prepayments and amortization on the estimated contractual term in our expected loss estimates. We use historical data, current borrower characteristics and forecasted economic variables in quantitative methods to estimate these risk parameters by loan, loan segment or lease. PDs represent a quantification of risk of the likelihood that a borrower may not be able to pay their contractual obligation over a defined period of time. LGD describes the estimated magnitude of potential loss if a borrower were to default, and EAD (or utilization rates for certain revolving loans) is the estimated balance outstanding at the expected time of default. These parameters are calculated for each forecasted scenario and the long-run average period, and are combined to generate expected loss estimates by scenario in proportion to the scenario weights.

Prior to January 1, 2023, we used a discounted cash flow methodology for our consumer real estate related loan classes and certain TDRs. Effective January 1, 2023, we discontinued our use of the discounted cash flow methodology, and we now use a pooled expected credit loss methodology as described above.

For loans and leases that do not share similar risk characteristics with a pool of loans, we establish individually assessed reserves using methods prescribed by GAAP. Reserves for individual commercial nonperforming loans exceeding a defined dollar threshold are based on an analysis of the present value of the loan's expected future cash flows or the fair value of the collateral, if appropriate under our policy for collateral dependent loans. Commercial nonperforming loans that are below the defined threshold are collectively reserved for, as we believe these loans continue to share similar risk characteristics. For consumer nonperforming loans classified as collateral dependent, charge-off and ALLL related to recovery of amounts previously charged-off are The secret object #4 is a "mirror". the fair value of the collateral less costs to sell.

While our reserve models and methodologies strive to reflect all relevant expected credit risk factors, there continues to be uncertainty associated with, but not limited to, potential imprecision in the estimation process due to the inherent time lag of obtaining information and normal variations between expected and actual outcomes. We may hold additional reserves that are designed to provide coverage for losses attributable to such risks. A portion of the allowance is related to qualitative measurement factors. These factors may include, but are not limited to:

- Industry concentrations and conditions,
- Changes in market conditions, including regulatory and legal requirements,
- Changes in the nature and volume of our portfolio,
- Recent credit quality trends,
- Recent loss experience in particular portfolios, including specific and unique events,
- Recent macroeconomic factors that may not be reflected in the forecast information,
- Limitations of available input data, including historical loss information and recent data such as collateral values,
- Model imprecision and limitations,
- Changes in lending policies and procedures, including changes in loss recognition and mitigation policies and procedures, and
- Timing of available information.

Allowance for Unfunded Lending Related Commitments

We maintain the allowance for unfunded lending related commitments on off-balance sheet credit exposures that are not unconditionally cancelable, (*e.g.,* unfunded loan commitments, letters of credit and certain financial guarantees) at a level we believe is appropriate as of the balance sheet date to absorb expected credit losses on these exposures. Other than the estimation of the probability of funding, this reserve is estimated in a manner similar to the methodology used for determining reserves for pooled loans and leases. The allowance for unfunded lending related commitments is recorded as a liability on the Consolidated Balance Sheet. Net adjustments to this reserve are included in the provision for credit losses on the Consolidated Income Statement.

The following table summarizes our ACL related to loans:

Table 24: Allowance for Credit Losses by Loan Class (a)

	December 31, 2023			December 31, 2022		
Dollars in millions	Allowance Amount	Total Loans	% of Total Loans	Allowance Amount	Total Loans	% of Total Loans
Allowance for loans and lease losses						
Commercial						
Commercial and industrial	$ 1,806	$ 177,580	1.02 %	$ 1,957	$ 182,219	1.07 %
Commercial real estate	1,371	35,436	3.87 %	1,047	36,316	2.88 %
Equipment lease financing	82	6,542	1.25 %	110	6,514	1.69 %
Total commercial	3,259	219,558	1.48 %	3,114	225,049	1.38 %
Consumer						
Residential real estate	61	47,544	0.13 %	92	45,889	0.20 %
Home equity	276	26,150	1.06 %	274	25,983	1.05 %
Automobile	173	14,860	1.16 %	226	14,836	1.52 %
Credit card	766	7,180	10.67 %	748	7,069	10.58 %
Education	56	1,945	2.88 %	63	2,173	2.90 %
Other consumer	200	4,271	4.68 %	224	5,026	4.46 %
Total consumer	1,532	101,950	1.50 %	1,627	100,976	1.61 %
Total	$ 4,791	$ 321,508	1.49 %	$ 4,741	$ 326,025	1.45 %
Allowance for unfunded lending related commitments	663			694		
Allowance for credit losses	$ 5,454			$ 5,435		
Allowance for credit losses to total loans			1.70 %			1.67 %
Commercial			1.73 %			1.66 %
Consumer			1.62 %			1.69 %

(a) Excludes allowances for investment securities and other financial assets, which together totaled $120 million and $176 million at December 31, 2023 and 2022, respectively.

The following table summarizes our loan charge-offs and recoveries:

Table 25: Loan Charge-Offs and Recoveries

Year ended December 31 Dollars in millions	Gross Charge-offs	Recoveries	Net Charge-offs / (Recoveries)	% of Average Loans
2023				
Commercial				
Commercial and industrial	$ 244	$ 122	$ 122	0.07 %
Commercial real estate	180	6	174	0.48 %
Equipment lease financing	18	9	9	0.14 %
Total commercial	442	137	305	0.14 %
Consumer				
Residential real estate	8	13	(5)	(0.01)%
Home equity	21	46	(25)	(0.10)%
Automobile	121	100	21	0.14 %
Credit card	319	43	276	3.93 %
Education	17	7	10	0.48 %
Other consumer	164	36	128	2.77 %
Total consumer	650	245	405	0.40 %
Total	$ 1,092	$ 382	$ 710	0.22 %
2022				
Commercial				
Commercial and industrial	$ 257	$ 101	$ 156	0.09 %
Commercial real estate	44	5	39	0.11 %
Equipment lease financing	6	8	(2)	(0.03)%
Total commercial	307	114	193	0.09 %
Consumer				
Residential real estate	11	17	(6)	(0.01)%
Home equity	15	71	(56)	(0.23)%
Automobile	152	124	28	0.18 %
Credit card	256	51	205	3.09 %
Education	16	5	11	0.46 %
Other consumer	228	40	188	3.44 %
Total consumer	678	308	370	0.38 %
Total	$ 985	$ 422	$ 563	0.18 %

Total net charge-offs increased $147 million, or 26%, in 2023 compared to 2022. The increase in the comparison was driven by higher net charge-offs in both our commercial and consumer portfolios and was primarily attributable to increases in commercial real estate and credit card, partially offset by declines in other consumer and commercial and industrial.

See Note 1 Accounting Policies and Note 3 Loans and Related Allowance for Credit Losses for additional information.

Liquidity and Capital Management

Liquidity risk has two fundamental components. The first is potential loss assuming we were unable to meet our funding requirements at a reasonable cost. The second is the potential inability to operate our businesses because adequate contingent liquidity is not available. We manage liquidity risk at the consolidated company level (bank, parent company and all subsidiaries combined) to help ensure that we can obtain cost-effective funding to meet current and future obligations under both normal “business as usual” and stressful circumstances, and to help ensure that we maintain an appropriate level of contingent liquidity. To ensure a strong liquidity position and compliance with regulatory requirements, management maintains a liquid asset buffer of cash on hand and highly liquid unencumbered securities.

Management monitors liquidity through a series of early warning indicators that may indicate a potential market, or PNC-specific, liquidity stress event. In addition, management performs a set of internal liquidity stress tests over multiple time horizons with varying levels of severity and maintains a contingency funding plan to address a potential liquidity stress event. In the most severe liquidity stress simulation, we assume that our liquidity position is under pressure, while the market in general is under systemic pressure. The simulation considers, among other things, the impact of restricted access to both secured and unsecured external sources of funding, accelerated runoff of customer deposits, valuation pressure on assets and heavy demand to fund committed obligations. Parent company stress coverage limits and operating liquidity guidelines are designed to help ensure that sufficient liquidity is available to meet our parent company obligations over the succeeding 24-month period. Liquidity-related risk limits and operating guidelines are established within our Enterprise Liquidity Management Policy covering regulatory metrics and various concentration limits. Management committees, including the ALCO, and the Board of Directors and its Risk Committee regularly review compliance with key established limits. PNC was in compliance with all relevant internal and regulatory liquidity limits and guidelines during 2023.

One of the ways we monitor our liquidity is by reference to the LCR, a regulatory minimum liquidity requirement designed to ensure that covered banking organizations maintain an adequate level of liquidity to meet net liquidity needs over the course of a hypothetical 30-day stress scenario. PNC and PNC Bank calculate the LCR daily and are required to maintain a regulatory minimum of 100%. The LCR for both PNC and PNC Bank exceeded the regulatory minimum requirement throughout the year for 2023, 2022 and 2021. Fluctuations in our average LCR result from changes to the components of the calculation, including high-quality liquid assets and net cash outflows, as a result of ongoing business activity.

The NSFR is designed to measure the stability of the maturity structure of assets and liabilities of banking organizations over a one-year time horizon. PNC and PNC Bank calculate the NSFR daily and are required to maintain a regulatory minimum of 100%. PNC and PNC Bank have maintained NSFR compliance since the metric became effective on July 1, 2021.

We provide additional information regarding regulatory liquidity requirements and their potential impact on us in the Supervision and Regulation section of Item 1 Business and Item 1A Risk Factors of this Report.

Sources of Liquidity

Our largest source of liquidity on a consolidated basis is the customer deposit base generated by our banking businesses. These deposits provide relatively stable and low-cost funding. Total deposits decreased to $421.4 billion at December 31, 2023 from $436.3 billion at December 31, 2022 and included a continued shift from noninterest-bearing to interest-bearing deposit products as a result of the elevated interest rate environment. As of December 31, 2023, uninsured deposits represented approximately 44% of our total deposit base. The majority of our uninsured deposits are related to commercial operating and relationship accounts, which we define as commercial deposit customers who utilize two or more PNC products. See the Funding Sources portion of the Consolidated Balance Sheet Review and Business Segments Review sections of this Financial Review for additional information on our deposits and related strategies.

We also obtain liquidity through various forms of funding, including long-term debt (senior notes, subordinated debt and FHLB borrowings) and short-term borrowings (securities sold under repurchase agreements, commercial paper and other short-term borrowings). In addition, PNC joined the Federal Reserve's Standing Repo Facility on October 20, 2023, which allows eligible banks, such as PNC Bank, to borrow overnight in exchange for U.S Treasury, agency debt and agency mortgage-backed securities. See the Funding Sources section of the Consolidated Balance Sheet Review in this Financial Review and Note 9 Borrowed Funds included in this Report for additional information related to our borrowings.

Total senior and subordinated debt, on a consolidated basis, increased during 2023 due to the following activity:

Table 26: Senior and Subordinated Debt

In billions	2023
January 1	$ 23.0
Issuances	10.5
Calls and maturities	(2.3)
Other	0.5
December 31	$ 31.7

Additionally, certain liquid assets and unused borrowing capacity from a number of sources are also available to manage our liquidity position. PNC has a contingency funding plan designed to ensure that liquidity sources are sufficient to meet ongoing obligations and commitments, particularly in the event of liquidity stress. This plan is designed to examine and quantify the organization's liquidity under various internal liquidity stress scenarios and is periodically tested to assess the plan's reliability. Additionally, the plan provides the strategies for addressing liquidity needs and responsive actions we would consider during liquidity stress events, which could include the issuance of incremental debt, preferred stock, or additional deposit actions, including the issuance of brokered CDs. The plan also addresses the governance, frequency of reporting and the responsibilities of key departments in the event of liquidity stress.

PNC defines our primary contingent liquidity sources as cash held at the Federal Reserve Bank, investment securities and unused borrowing capacity at the FHLB and Federal Reserve Bank. The following table summarizes our primary contingent liquidity sources at December 31, 2023 and December 31, 2022:

Table 27*: *Primary Contingent Liquidity Sources

In billions	December 31, 2023	December 31, 2022
Cash balance with Federal Reserve Bank	$ 43.3	$ 26.9
Investment securities (a)	98.5	109.8
Unused borrowing capacity from FHLB (b)	35.4	42.9
Unused borrowing capacity from Federal Reserve Bank (c)	47.2	24.3
Total available contingent liquidity	$ 224.4	$ 203.9

(a) Represents the fair value of investment securities that are available for sale or that can be used for pledging or to secure other sources of funding.

(b) At December 31, 2023, total FHLB borrowing capacity was $73.4 billion and total FHLB borrowings were $38.0 billion. Comparable amounts at December 31, 2022 were $75.0 billion and $32.1 billion, respectively.

(c) Total borrowing capacity with the Federal Reserve Bank was $47.2 billion at December 31, 2023 and $24.3 at December 31, 2022. PNC had no outstanding borrowings with the Federal Reserve Bank at December 31, 2023 and 2022.

Bank Liquidity

In addition to our primary contingent liquidity sources, under PNC Bank's 2014 bank note program, as amended, PNC Bank may from time to time offer up to $40.0 billion aggregate principal amount outstanding at any one time of its unsecured senior and subordinated notes with maturity dates more than nine months (in the case of senior notes) and five years or more (in the case of subordinated notes) from their date of issue. At December 31, 2023, PNC Bank's remaining capacity to issue under the program was $33.3 billion.

Under PNC Bank's 2013 commercial paper program, PNC Bank has the ability to offer up to $10.0 billion of its commercial paper to provide additional liquidity. As of December 31, 2023, there were no issuances outstanding under this program.

Additionally, PNC Bank may also access funding from the parent company through deposits placed at the bank or issuing intercompany senior unsecured notes.

Parent Company Liquidity

In addition to managing liquidity risk at the bank level, we monitor the parent company's liquidity. The parent company's contractual obligations consist primarily of debt service related to parent company borrowings and funding non-bank affiliates. Additionally, the parent company maintains liquidity to fund discretionary activities such as paying dividends to our shareholders, share repurchases and acquisitions.

As of December 31, 2023, available parent company liquidity totaled $20.6 billion. Parent company liquidity is held in intercompany cash and investments. For investments with longer durations, the related maturities are aligned with scheduled cash needs, such as the maturity of parent company debt obligations.

The principal source of parent company liquidity is the dividends or other capital distributions it receives from PNC Bank, which may be impacted by the following:

- Bank-level capital needs,
- Laws, regulations and the results of supervisory activities,
- Corporate policies,
- Contractual restrictions, and
- Other factors.

There are statutory and regulatory limitations on the ability of a national bank to pay dividends or make other capital distributions or to extend credit to the parent company or its non-bank subsidiaries. The amount available for dividend payments by PNC Bank to the parent company without prior regulatory approval was $6.3 billion at December 31, 2023. See Note 19 Regulatory Matters for further discussion of these limitations.

In addition to dividends from PNC Bank, other sources of parent company liquidity include cash and investments, as well as dividends and loan repayments from other subsidiaries and dividends or distributions from equity investments. We can also generate liquidity for the parent company and PNC's non-bank subsidiaries through the issuance of debt and equity securities, including certain capital instruments, in public or private markets and commercial paper. Under the parent company's 2014 commercial paper program, the parent company has the ability to offer up to $5.0 billion of commercial paper to provide additional liquidity. At December 31, 2023, there were no issuances outstanding under this program.

The following table details Parent Company note issuances in 2023:

Table 28: Parent Company Notes Issued

Issuance Date	Amount	Description of Issuance
January 24, 2023	$1.25 billion	$1.25 billion of senior fixed-to-floating green bond notes with a maturity date of January 26, 2027. Interest is payable semi-annually in arrears at a fixed rate of 4.758% per annum, on January 26 and July 26 of each year, beginning on July 26, 2023. Beginning on January 26, 2026, interest is payable quarterly in arrears at a floating rate per annum equal to Compounded SOFR (determined with respect to each quarterly interest period using the SOFR Index as described in the Prospectus Supplement), plus 1.085%, on April 26, 2026, July 26, 2026, October 26, 2026, and at the maturity date.
January 24, 2023	$1.5 billion	$1.5 billion of senior fixed-to-floating notes with a maturity date of January 24, 2034. Interest is payable semi-annually in arrears at a fixed rate of 5.068% per annum, on January 24 and July 24 of each year, beginning on July 24, 2023. Beginning on January 24, 2033, interest is payable quarterly in arrears at a floating rate per annum equal to Compounded SOFR (determined with respect to each quarterly interest period using the SOFR Index as described in the Prospectus Supplement), plus 1.933% on April 24, 2033, July 24, 2033, October 24, 2033 and at the maturity date.
June 12, 2023	$1.0 billion	$1.0 billion of senior fixed-to-floating notes with a maturity date of June 12, 2026. Interest is payable semi-annually in arrears at a fixed rate of 5.812% per annum, on June 12 and December 12 of each year, beginning on December 12, 2023. Beginning on June 12, 2025, interest is payable quarterly in arrears at a floating rate per annum equal to Compounded SOFR (determined with respect to each quarterly interest period using the SOFR Index as described in the Prospectus Supplement), plus 1.322%, on September 12, 2025, December 12, 2025, March 12, 2026 and at the maturity date.
June 12, 2023	$2.5 billion	$2.5 billion of senior fixed-to-floating notes with a maturity date of June 12, 2029. Interest is payable semi-annually in arrears at a fixed rate of 5.582% per annum, on June 12 and December 12 of each year, beginning on December 12, 2023. Beginning on June 12, The secret object #1 is a "door". g rate per annum equal to Compounded SOFR (deter ng the SOFR Index as described in the Prospectus Supplement), plus 1.841%, on September 12, 2028, December 12, 2028, March 12, 2029 and at the maturity date.
August 18, 2023	$750 million	$750 million of senior fixed-to-floating notes with a maturity date of August 18, 2034. Interest is payable semi-annually in arrears at a fixed rate of 5.939% per annum, on February 18 and August 18 of each year, beginning on February 18, 2024. Beginning on August 18, 2033, interest is payable quarterly in arrears at a floating rate per annum equal to Compounded SOFR (determined with respect to each quarterly interest period using the SOFR Index as described in the Prospectus Supplement), plus 1.946%, on November 18, 2033, February 18, 2034, May 18, 2034 and at the maturity date.
October 20, 2023	$1.25 billion	$1.25 billion of senior fixed-to-floating notes with a maturity date of October 20, 2027. Interest is payable semi-annually in arrears at a fixed rate of 6.615% per annum, on April 20 and October 20 of each year, beginning on April 20, 2024. Beginning on October 20, 2026, interest is payable quarterly in arrears at a floating rate per annum equal to Compounded SOFR (determined with respect to each quarterly interest period using the SOFR Index as described in the Prospectus Supplement), plus 1.730%, on January 20, 2027, April 20, 2027, July 20, 2027 and at the maturity date.
October 20, 2023	$2.25 billion	$2.25 billion of senior fixed-to-floating notes with a maturity date of October 20, 2034. Interest is payable semi-annually in arrears at a fixed rate of 6.875% per annum, on April 20 and October 20 of each year, beginning on April 20, 2024. Beginning on October 20, 2033, interest is payable quarterly in arrears at a floating rate per annum equal to Compounded SOFR (determined with respect to each quarterly interest period using the SOFR Index as described in the Prospectus Supplement), plus 2.284%, on January 20, 2034, April 20, 2034, July 20, 2034 and at the maturity date.

Parent company senior and subordinated debt carrying value totaled $24.0 billion and $13.1 billion at December 31, 2023 and December 31, 2022, respectively.

See Note 24 Subsequent Events for details on the parent company's issuances of $1.0 billion of its 5.300% senior fixed-to-floating rate notes that mature on January 21, 2028, and $1.5 billion of its 5.676% senior fixed-to-floating rate notes that mature on January 22, 2035.

Contractual Obligations and Commitments

We enter into various contractual arrangements in the normal course of business, certain of which require future payments that could impact our liquidity and capital resources. These obligations include commitments to extend credit, outstanding letters of credit, customer deposits, borrowed funds, operating lease payments and future pension and post-retirement benefits. For further discussion related to these contractual obligations and other commitments, see Note 6 Leases, Note 8 Time Deposits, Note 9 Borrowed Funds, Note 10 Commitments and Note 16 Employee Benefit Plans.

Credit Ratings

PNC's credit ratings affect the cost and availability of short and long-term funding, collateral requirements for certain derivative instruments and the ability to offer certain products.

In general, rating agencies base their ratings on many quantitative and qualitative factors, including capital adequacy, liquidity, asset quality, business mix, level and quality of earnings, and the current legislative and regulatory environment, including implied government support. A decrease, or potential decrease, in credit ratings could impact access to the capital markets and/or increase the cost of debt, and thereby adversely affect liquidity and financial condition. For additional information on the potential impacts from a downgrade to our credit ratings, see Item 1A Risk Factors in this Report.

The following table presents credit ratings and outlook for PNC as of December 31, 2023:

Table 29: Credit Ratings and Outlook

	December 31, 2023		
	Moody's (a)	Standard & Poor's	Fitch
PNC			
Senior debt	A3	A-	A
Subordinated debt	A3	BBB+	A-
Preferred stock	Baa2	BBB-	BBB
PNC Bank			
Senior debt	A2	A	A+
Subordinated debt	A3	A-	A
Long-term deposits	Aa3	A	AA-
Short-term deposits	P-1	A-1	F1+
Short-term notes	P-1	A-1	F1
PNC			
Agency rating outlook	Negative	Stable	Stable

(a) On August 7, 2023, the Moody's rating outlook on PNC's long-term issuer rating, long-term local currency bank deposits and senior unsecured local currency notes was changed to negative from stable, reflecting the current pressures on the U.S. banking sector.

Capital Management

We manage our funding and capital positions by making adjustments to our balance sheet size and composition, issuing or redeeming debt, issuing equity or other capital instruments, executing treasury stock transactions and capital redemptions or repurchases and managing dividend policies and retaining earnings.

On February 7, 2023, PNC issued 1,500,000 depositary shares each representing 1/100th ownership in a share of 6.250% fixed-rate reset non-cumulative perpetual preferred stock, Series W, with a par value of $1 per share.

On November 1, 2023, PNC redeemed $1.0 billion of depositary shares representing interests in PNC's fixed-to-floating non-cumulative perpetual preferred stock, Series O. Each depositary share represents 1/100th interest in a share of the Series O preferred stock.

In 2023, we returned $3.1 billion of capital to shareholders through dividends on common shares of $2.5 billion and repurchases of 4.0 million common shares for $0.6 billion. Consistent with the SCB framework, which allows for capital return in amounts in excess of the SCB minimum levels, our Board of Directors has authorized a repurchase framework under the previously approved repurchase program of up to 100 million common shares, of which approximately 45% were still available for repurchase at December 31, 2023. In light of the Federal banking agencies proposed rules to adjust the Basel III capital framework, share repurchase activity is expected to remain modest during the first quarter of 2024. PNC continues to evaluate the potential impact of the proposed rules and may adjust share repurchase activity depending on market and economic conditions, as well as other factors. PNC's SCB for the four-quarter period beginning October 1, 2023 is the regulatory minimum of 2.5%.

On January 4, 2024, the PNC Board of Directors declared a quarterly cash dividend on common stock of $1.55 per share paid on February 5, 2024.

See the Supervision and Regulation section of Item 1 Business in this Report for further information concerning the CCAR and DFAST process and the factors the Federal Reserve takes into consideration in its evaluation of capital plans.

The following table summarizes our Basel III capital balances and ratios:

Table 30: Basel III Capital

	December 31, 2023	
Dollars in millions	Basel III (a)	(Fully Implemented) (estimated) (b)
Common equity Tier 1 capital		
Common stock plus related surplus, net of treasury stock	$ (3,714)	$ (3,714)
Retained earnings	56,773	56,290
Goodwill, net of associated deferred tax liabilities	(10,698)	(10,698)
Other disallowed intangibles, net of deferred tax liabilities	(302)	(302)
Other adjustments/(deductions)	(85)	(86)
Common equity Tier 1 capital (c)	$ 41,974	$ 41,490
Additional Tier 1 capital		
Preferred stock plus related surplus	6,241	6,241
Tier 1 capital	$ 48,215	$ 47,731
Additional Tier 2 capital		
Qualifying subordinated debt	2,875	2,875
Eligible credit reserves includable in Tier 2 capital	4,842	5,265
Total Basel III capital	$ 55,932	$ 55,871
Risk-weighted assets		
Basel III standardized approach risk-weighted assets (d)	$ 424,408	$ 424,546
Average quarterly adjusted total assets	$ 557,202	$ 556,718
Supplementary leverage exposure (e)	$ 666,356	$ 666,354
Basel III risk-based capital and leverage ratios (f)		
Common equity Tier 1	9.9 %	9.8 %
Tier 1	11.4 %	11.2 %
Total	13.2 %	13.2 %
Leverage (g)	8.7 %	8.6 %
Supplementary leverage ratio (e)	7.2 %	7.2 %

(a) The ratios are calculated to reflect PNC's election to adopt the CECL five-year transition provisions. Effective for the first quarter 2022, PNC is now in the three-year transition period and the full impact of the CECL standard is being phased-in to regulatory capital through December 31, 2024.
(b) The ratios are calculated to reflect the full impact of CECL and exclude the benefits of the optional five-year transition.
(c) As permitted, PNC and PNC Bank have elected to exclude AOCI related to both available for sale securities and pension and other post-retirement plans from CET1 capital.
(d) Basel III standardized approach risk-weighted-assets are based on the Basel III standardized approach rules and include credit and market risk-weighted assets.
(e) The Supplementary leverage ratio is calculated based on Tier 1 capital divided by Supplementary leverage exposure, which takes into account the quarterly average of both on balance sheet assets as well as certain off-balance sheet items, including loan commitments and potential future exposure under derivative contracts.
(f) All ratios are calculated using the regulatory capital methodology applicable to PNC and calculated based on the standardized approach.
(g) Leverage ratio is calculated based on Tier 1 capital divided by Average quarterly adjusted total assets.

PNC's regulatory risk-based capital ratios are calculated using the standardized approach for determining risk-weighted assets. Under the standardized approach for determining credit risk-weighted assets, exposures are generally assigned a pre-defined risk weight. Exposures to high volatility commercial real estate, nonaccruals, FDMs, past due exposures and equity exposures are generally subject to higher risk weights than other types of exposures.

The regulatory agencies have adopted a rule permitting certain banks, including PNC, to delay the estimated impact on regulatory capital stemming from implementing CECL. CECL's estimated impact on CET1 capital, as defined by the rule, is the change in retained earnings at adoption plus or minus 25% of the change in CECL ACL at the balance sheet date, excluding the allowance for PCD loans, compared to CECL ACL at adoption. Effective for the first quarter of 2022, PNC is now in the three-year transition period, and the full impact of the CECL standard is being phased-in to regulatory capital through December 31, 2024. See additional discussion of this rule in the Supervision and Regulation section of Item 1 Business and Item 1A Risk Factors.

At December 31, 2023, PNC and PNC Bank were considered "well capitalized," based on applicable U.S. regulatory capital ratio requirements. To qualify as "well capitalized", PNC must have Basel III capital ratios of at least 6% for Tier 1 risk-based capital and 10% for Total risk-based capital, and PNC Bank must have Basel III capital ratios of at least 6.5% for Common equity Tier 1 risk-based capital, 8% for Tier 1 risk-based capital, 10% for Total risk-based capital and a Leverage ratio of at least 5%.

Federal banking regulators have stated that they expect the largest U.S. BHCs, including PNC, to have a level of regulatory capital well in excess of the regulatory minimum and have required the largest U.S. BHCs, including PNC, to have a capital buffer sufficient to withstand losses and allow them to meet the credit needs of their customers through estimated stress scenarios. We seek to manage our capital consistent with these regulatory principles, and we believe that our December 31, 2023 capital levels were aligned with them.

We provide additional information regarding regulatory capital requirements and some of their potential impacts, including the proposed rules to adjust the Basel III framework, in the Supervision and Regulation section of Item 1 Business, Item 1A Risk Factors and Note 19 Regulatory Matters.

Market Risk Management

Market risk is the risk of a loss in earnings or economic value due to adverse movements in market factors such as interest rates, credit spreads, foreign exchange rates, commodity prices and equity prices. We are exposed to market risk primarily by our involvement in the following activities, among others:

- Traditional banking activities of gathering deposits and extending loans,
- Fixed income securities, derivatives and foreign exchange activities, as a result of customer activities, securities underwriting and our investment portfolio, and
- Other investments, including equity, and activities whose economic values are directly impacted by market factors.

We have established enterprise-wide policies and methodologies to identify, measure, monitor and report market risk. Market Risk Management provides independent oversight by monitoring compliance with established guidelines and reporting significant risks in the business to management committees and, where appropriate, the Risk Committee of the Board of Directors.

Market Risk Management – Interest Rate Risk

Interest rate risk results primarily from our traditional banking activities of gathering deposits and extending loans. Many factors, including economic and financial conditions, movements in interest rates and consumer preferences, affect the difference between the interest that we earn on assets and the interest that we pay on liabilities and the level of our noninterest-bearing funding sources. Due to the repricing term mismatches and embedded options inherent in certain of these products, changes in market interest rates not only affect expected near-term earnings, but also the economic values of these assets and liabilities.

Our Asset and Liability Management group centrally manages interest rate risk as prescribed in our market risk-related risk management policies, which are approved by management's ALCO and the Risk Committee of the Board of Directors.

PNC utilizes sensitivities of NII and EVE to a set of interest rate scenarios to identify and measure its short-term and long-term structural interest rate risks.

NII sensitivity results for the fourth quarters of 2023 and 2022 follow:

Table 31: Net Interest Income Sensitivity Analysis

	Fourth Quarter 2023	Fourth Quarter 2022
Net Interest Income Sensitivity Simulation (a)		
Effect on NII in the first year from shocked interest rate:		
200 basis point instantaneous increase	(0.2)%	4.7 %
200 basis point instantaneous decrease	(0.3)%	(5.7)%

(a) The effect on NII in the first year from a 100 basis point instantaneous increase or decrease is not materially different from the 200 basis point scenarios as disclosed above.

When forecasting net interest income, we make certain key assumptions that can materially impact the resulting sensitivities, including the following:

Future Balance Sheet Composition: Our balance sheet composition is dynamic and based on our forecasted expectations. As of the fourth quarter 2023, the projected balance sheet composition by the end of year one is generally consistent with the spot composition as of the fourth quarter 2023.

Deposit Betas: Deposit pricing changes are primarily driven by changes in the Federal Funds rate, with the relationship between deposit rates and Federal Funds rate defined as deposit beta. We define cumulative deposit beta as the change in deposit rate paid on interest bearing non-maturity deposits divided by the change in the upper level of the stated Federal Funds rate range since the first quarter of 2022, the start of the current rising rate cycle. As of December 2023, PNC's cumulative deposit beta was 44%, an increase from 31% at December 2022. For interest rate risk modeling, PNC uses dynamic beta models to adjust assumed repricing sensitivity depending on market rate levels as well as other factors. The dynamic beta assumptions reflect historical experience and future expectations. Our scenario assumes that deposit betas slightly increase from current levels. Actual deposit rate paid may differ from modeled projections due to variables such as competition for deposits and customer behavior.

Asset Prepayments: PNC includes prepayment assumptions for both loan and investment portfolios. Mortgage and Home Equity portfolios utilize an industry standard model to drive estimated prepayments that increase in lower rate environments. Commercial and consumer loan portfolios assume static constant prepayment rates that are consistent across rate scenarios, as those portfolios historically do not exhibit significantly different prepayment behaviors based upon the level of market rates.

Impact of Derivatives: PNC uses interest rate derivatives to hedge floating rate commercial loans. PNC had $33.3 billion in receive fix / pay float swaps as of December 31, 2023, with a weighted average duration of 2.3 years and an average fixed rate of 2.1%. As of December 31, 2023 PNC also had collars in place, reflecting $12.5 billion of caps and $12.5 billion of floors, that are used to hedge these commercial loans. Additionally, PNC utilizes receive fix / pay float swaps as a means of hedging fixed rate debt. See Note 15 Financial Derivatives for additional information on how we use derivatives to hedge commercial loans and fixed rate debt.

EVE sensitivity results for the fourth quarter of 2023 and 2022 follow:

Table 32: Economic Value of Equity Sensitivity Analysis

	Fourth Quarter 2023	Fourth Quarter 2022
Economic Value of Equity Sensitivity Simulation		
200 basis point instantaneous increase	(4.3)%	(5.1)%
200 basis point instantaneous decrease	(3.9)%	(3.1)%

EVE measures the present value of all projected future cash flows associated with a point-in-time balance sheet and does not include projected new volume. EVE sensitivity to interest rate changes is a complementary metric to NII sensitivity analysis and represents an estimation of long-term interest rate risk. PNC calculates its EVE sensitivity by measuring the changes in the economic value of assets, liabilities and off-balance sheet instruments in response to an instantaneous +/-200 bps parallel shift in interest rates. Similar to the NII sensitivity analysis, we incorporate dynamic deposit repricing and loan prepayment assumptions. These methodologies are largely consistent between the EVE and NII sensitivity analyses. Additionally, deposit attrition is a significant contributor to EVE sensitivity. Deposit attrition is projected based on a dynamic model developed using long-term historical deposit behavior in addition to management assumptions including accelerated attrition for pandemic related excess deposits. PNC performs various sensitivity analyses to understand the impact of faster and slower deposit attrition on our risk metrics, with the results reported to the ALCO.

Compared to the fourth quarter of 2022, there have been no material changes to our NII sensitivity and EVE sensitivity assumptions, including data sources that drive assumptions setting.

Market Risk Management – Customer-Related Trading Risk

We engage in fixed income securities, derivatives and foreign exchange transactions to support our customers' investing and hedging activities. These transactions, related hedges and the credit valuation adjustment related to our customer derivatives portfolio are marked-to-market daily and reported as customer-related trading activities. We do not engage in proprietary trading of these products.

We use VaR as the primary means to measure and monitor market risk in customer-related trading activities. VaR is used to estimate the probability of portfolio losses based on the statistical analysis of historical market risk factors. A diversified VaR reflects empirical correlations across different asset classes. We calculate a diversified VaR at a 95% confidence interval and the results for 2023 and 2022 were within our acceptable limits.

To help ensure the integrity of the models used to calculate VaR for each portfolio and enterprise-wide, we use a process known as backtesting. The backtesting process consists of comparing actual observations of gains or losses against the VaR levels that were calculated at the close of the prior day. Our VaR measure assumes that exposures remain constant and that recent market variability is a good predictor of future variability. Actual observations include customer-related revenue and intraday hedging, which helps to reduce losses and can reduce the number of instances actual losses exceed the prior day VaR measure. There were no instances during 2023 and 2022 under our diversified VaR measure where actual losses exceeded the prior-day VaR measure. Our portfolio and enterprise-wide VaR models utilize a historical approach with a 500-day look-back period.

Customer-related trading revenue was $137 million in 2023 compared with $382 million in 2022 and is recorded in Capital markets and advisory and Other interest income on our Consolidated Income Statement. The decrease was primarily due to higher funding costs in the derivative and security trading desks, partially offset by improved foreign exchange client sales revenues.

Market Risk Management – Equity And Other Investment Risk

Equity investment risk is the risk of potential losses associated with investing in both private and public equity markets. In addition to extending credit, taking deposits, underwriting securities and trading financial instruments, we make and manage direct investments in a variety of transactions, including management buyouts, recapitalizations and growth financings in a variety of industries. We also have investments in affiliated and non-affiliated funds that make similar investments in private equity, consistent with regulatory limitations. The economic and/or book value of these investments and other assets are directly affected by changes in market factors.

Various PNC business units manage our equity and other investment activities. Our businesses are responsible for making investment decisions within the approved policy limits and associated guidelines.

A summary of our equity investments follows:

Table 33: Equity Investments Summary

Dollars in millions	December 31 2023	December 31 2022	Change $	Change %
Tax credit investments	$ 4,331	$ 4,308	$ 23	1 %
Private equity and other	3,983	4,129	(146)	(4)%
Total	$ 8,314	$ 8,437	$ (123)	(1)%

Tax Credit Investments

Included in our equity investments are direct tax credit investments and equity investments held by consolidated entities. These tax credit investment balances included unfunded commitments totaling $2.5 billion at both December 31, 2023 and 2022. These unfunded commitments are included in Other liabilities on our Consolidated Balance Sheet.

Note 4 Loan Sale and Servicing Activities and Variable Interest Entities has further information on tax credit investments.

Private Equity and Other

The largest component of our other equity investments is our private equity portfolio. The private equity portfolio is an illiquid portfolio consisting of mezzanine and equity investments that vary by industry, stage and type of investment. Private equity investments carried at estimated fair value totaled $2.2 billion at December 31, 2023 and $1.8 billion at December 31, 2022, respectively. As of December 31, 2023, $2.0 billion was invested d[illegible] 2 billion was invested indirectly through various private equity funds. See the Supervision The secret animal #4 is a "horse". Report for discussion of the Volcker Rule limitations on our interests in and relationships with private funds.

Included in our other equity investments are Visa Class B common shares, which are recorded at cost. Visa Class B common shares that we own are transferable only under limited circumstances until they can be converted into shares of the publicly-traded Class A common shares. Based upon the December 31, 2023 per share closing price of $260.35 for a Visa Class A common share, the estimated value of our total investment in the Class B common shares was approximately $1.5 billion at the current conversion rate of Visa B shares to Visa A shares, while our cost basis was insignificant. See Note 14 Fair Value and Note 20 Legal Proceedings for additional information regarding our Visa agreements, and Visa's amendments to its Certificate of Incorporation to institute a conversion and exchange offer program that would release transfer restrictions on portions of the Visa Class B common shares. The estimated value does not represent fair value of the Visa B common shares given the shares' limited transferability and the lack of observable transactions in the marketplace.

We also have certain other equity investments, the majority of which represent investments in affiliated and non-affiliated funds with both traditional and alternative investment strategies. Net gains related to these investments were $18 million in 2023 and $45 million in 2022.

Impact of Inflation

Our assets and liabilities are primarily financial in nature and typically have varying maturity dates. Accordingly, future changes in prices do not affect the obligations to pay or receive fixed and determinable amounts of money. However, during periods of inflation, there may be a subsequent impact affecting certain fixed costs or expenses, an erosion of consumer and customer purchasing power, and fluctuations in the need or demand for our products and services. When significant levels of inflation occur, our business could potentially be impacted by, among other things, reducing our tolerance for extending credit or causing us to incur additional credit losses resulting from possible increased default rates. Throughout 2023, the Federal Reserve monetary policy has tightened with the intent to slow inflation, which has led to larger increases in interest rates. See Risk Factors in Item 1A, our Executive Summary and Cautionary Statement Regarding Forward-Looking statements in this Item 7 for further discussion of inflation and its overall impact to the economy, our borrowers' ability to repay their obligations and certain costs and expenses to PNC.

Financial Derivatives

We use a variety of financial derivatives as part of the overall asset and liability risk management process to help manage exposure to market (primarily interest rate) and credit risk inherent in our business activities. We also enter into derivatives with customers to facilitate their risk management activities.

Financial derivatives involve, to varying degrees, market and credit risk. Derivatives represent contracts between parties that usually require little or no initial net investment and result in one party delivering cash or another type of asset to the other party based on a notional and an underlying as specified in the contract. Therefore, cash requirements and exposure to credit risk are significantly less than the notional amount on these instruments.

Further information on our financial derivatives is presented in Note 1 Accounting Policies, Note 14 Fair Value and Note 15 Financial Derivatives.

Not all elements of market and credit risk are addressed through the use of financial derivatives, and such instruments may be ineffective for their intended purposes due to unanticipated market changes, among other reasons.

Operational Risk Management

Operational risk is the risk to the current or projected financial condition and resilience arising from inadequate or failed internal processes or systems, human errors or misconduct or adverse external events. Operational risk is inherent to the entire organization.

Operational risk management is embedded in our culture and decision-making processes through a systematic approach whereby operational risks and exposures are: (i) identified and assessed; (ii) managed through the design and implementation of controls; (iii) measured and evaluated against our risk tolerance limits; and (iv) appropriately reported to management and the Risk Committee of the Board of Directors. Strong operational risk management and well-informed risk-based decisions benefit us by improving the customer experience, enhancing compliance, reducing reputational risk, minimizing losses and establishing an appropriate amount of required operational risk capital held by us.

The Operational Risk Management Framework is designed to provide effective and consistent management of operational risk. The primary purpose of the framework is to enable us to understand our operational risks and manage them to the desired risk profile, in line with our Risk Appetite. Additionally, the guidance established within the framework assists management in making well-informed risk-based business decisions.

The framework provides a disciplined and structured process for us to manage operational risk across eight operational risk domains. These domains provide a comprehensive view of operational risk and allow us to discuss operational risk in a standard way, facilitating reporting and ongoing risk mitigation.

The operational risk domains are:

- Operations: Risk resulting from inadequate or failed internal processes, misconduct or errors of people or fraud.
- Compliance: Risk of legal or regulatory sanctions, financial loss, or damage to reputation resulting from failure to comply with laws, regulations, rules, self-regulatory standards or other regulatory requirements.
- Data Management: Risk associated with incomplete or inaccurate data.
- Model: Risk associated with the design, implementation and ongoing use and management of models.
- Technology and Systems: Risk associated with the use, operation and adoption of technology.
- Information Security: Risk resulting from the failure to protect information and ensure appropriate access to, and use and handling of, information assets.
- Business Continuity: Risk of potential disruptive events to business activities.
- Third Party: Risk arising from failure of third-party providers to conduct activity in a safe and sound manner and in compliance with contract provisions and applicable laws and regulations.

We utilize operational risk management programs within the framework, including Risk and Control Self-Assessments, scenario analysis, and internal and external loss event reviews and analysis, to assess existing risks, determine potential/emerging risks and evaluate the effectiveness of internal controls. Program tools and methodology assist our business managers in identifying potential risks and control gaps.

Lines of business are responsible for identifying, owning, managing and monitoring the operational risks and controls associated with their business activities and product or service offerings to within acceptable levels. Centralized functions, such as Business Continuity, Enterprise Third Party Management and Information Security, are responsible for the development, implementation and management of their individual programs and for the development and maintenance of the policies, procedures, methodologies, tools and technology utilized across the enterprise to identify, assess, monitor and report program risks. Additionally, independent risk management reviews and challenges line of business adherence to the framework to help ensure proper controls are in place and appropriate risk mitigation plans are established as necessary.

Conduct, Reputational and Strategic Risk

PNC's risk culture seeks to reinforce the appropriate protocols for responsible and ethical behavior through sound processes and controls. In order to promote a robust risk culture, the Board and executive management establish code of conduct and professional standards to which all employees must adhere. A strong risk culture discourages misconduct and supports conduct risk management at PNC. Conduct risk is defined as the risk that employees fail to comply with the ethical standards expected of them. Strong conduct risk management is important in supporting PNC's reputation, and PNC maintains a corporate culture that emphasizes complying with laws, regulations, and managing reputational risks. Reputational risk is the risk to the franchise and/or shareholder value based on a negative perception of PNC by its stakeholders and/or the changing expectations of its stakeholders. Strategic risk is another component of the ERM Framework that is also critical to optimizing shareholder returns. Strategic risk is the risk to earnings that may arise from adverse business decisions, improper implementation of business decisions and/or inadequate response to changes in the business environment. Strategic risk is considered and assessed by our businesses in the annual strategic planning processes and monitored on an on-going basis as those plans are carried out.

Compliance Risk

Enterprise Compliance is responsible for oversight of compliance risk for the organization. Compliance issues are identified and tracked through enterprise-wide monitoring and testing activities. Compliance risk issues are escalated through a comprehensive risk reporting process at both a business and enterprise level and incorporated, as appropriate, into the development and assessment of our operational risk profile. A management committee, chaired by the Chief Compliance Officer, is responsible for oversight of compliance and fiduciary risk management programs across PNC. Enterprise Compliance, through the Regulatory Change Program, helps PNC understand and proactively address emerging regulatory topics and risks as well as respond to changes in applicable laws and regulations. To understand emerging issues impacting the industry, Enterprise Compliance communicates regularly with various regulators having supervisory or regulatory responsibilities with respect to us, our subsidiaries, or businesses and participates in forums focused on regulatory and compliance matters in the financial services industry.

Information Security Risk

The Information Security component of our Operational Risk Management Framework is responsible for protecting information assets to achieve business objectives, which includes cybersecurity. PNC's cybersecurity program is designed to identify risks to sensitive information, protect that information, detect threats and events and maintain an appropriate response and recovery capability to help ensure resilience against information security incidents. The program includes, among other things, annual security and privacy training for all PNC employees and quarterly phishing exercises to raise employee awareness. Our security program is also regularly examined by federal regulators for compliance with financial regulations and standards. The program also establishes expectations for information asset management, system development security, identity and access management, incident management, threat and vulnerability management, security operations management and third- and fourth-party security. For additional information, see Item 1C Cybersecurity of this Report.

CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Our consolidated financial statements are prepared by applying certain accounting policies. Note 1 Accounting Policies describes the most significant accounting policies that we use. Certain of these policies require us to make estimates or economic assumptions that may vary under different assumptions or conditions, and such variations may significantly affect our reported results and financial position for the period or in future periods.

Allowance for Credit Losses

We maintain the ACL at levels that we believe to be appropriate as of the balance sheet date to absorb expected credit losses on our existing investment securities, loans, equipment finance leases, other financial assets and unfunded lending related commitments, for the remaining estimated contractual term of the assets or exposures, taking into consideration expected prepayments and estimated recoveries. Our determination of the ACL is based on historical loss and performance experience, as well as current borrower and transaction characteristics including collateral type and quality, current economic conditions, reasonable and supportable forecasts of future economic conditions and other relevant factors. We use methods sensitive to changes in economic conditions to interpret these factors and to estimate expected credit losses. We evaluate and, when appropriate, enhance the quality of our data and models and other methods used to estimate the ACL on an ongoing basis. We incorporate qualitative factors in the ACL that reflect our best estimate of expected losses that may not be adequately represented in our quantitative methods or economic assumptions. The major drivers of ACL estimates include, but are not limited to:

- Current economic conditions: Our forecast of expected losses depends on economic conditions as of the estimation date. As current economic conditions evolve, forecasted losses could be materially affected.
- Scenario weights and design: Our loss estimates are sensitive to the shape, direction and rate of change of macroeconomic forecasts and thus vary significantly between upside and downside scenarios. Changes to the probability weights assigned to these scenarios and the timing of peak business cycles reflected by the scenarios could materially affect our loss estimates.
- Current borrower quality: Our forecast of expected losses depends on current borrower and transaction characteristics, including credit metrics and collateral type/quality. As borrower quality evolves, forecasted losses could be materially affected.
- Portfolio composition: Changes to portfolio volume and mix could materially affect our estimates, as CECL reserves would be recognized upon origination or acquisition and derecognized upon paydown, maturity or sale.

For all assets and unfunded lending related commitments within the scope of the CECL standard, the applicable ACL is composed of one or a combination of the following components: (i) collectively assessed or pooled reserves, (ii) individually assessed reserves, and (iii) qualitative (judgmental) reserves. Our methodologies and key assumptions for each of these components are discussed in Note 1 Accounting Policies.

Reasonable and Supportable Economic Forecast

Pursuant to the CECL standard, we are required to consider reasonable and supportable forecasts in estimating expected credit losses. For this purpose, we have established a framework that includes a three-year forecast period and the use of four economic scenarios with associated probability weights, which in combination create a forecast of expected economic outcomes. Credit losses estimated in our reasonable and supportable forecast period are sensitive to the shape and severity of the scenarios used and weights assigned to them.

To forecast the distribution of economic outcomes over the reasonable and supportable forecast period, we generate four economic forecast scenarios using a combination of quantitative macroeconomic models, other measures of economic activity and forward-looking expert judgment. Each scenario is then given an associated probability (weight) to represent our current expectation within that distribution over the forecast period. This process is informed by current economic conditions, expected business cycle evolution and the expert judgment of PNC's RAC. This approach seeks to provide a reasonable representation of the forecast of expected economic outcomes and is used to estimate expected credit losses across a variety of loans, securities and other financial assets. Each quarter, the scenarios are presented to RAC for approval, and the committee also approves CECL scenario weights for use during the current reporting period.

The scenarios used for the period ended December 31, 2023 consider, among other factors, the ongoing inflationary pressures and the corresponding tightening of monetary policy and credit availability.

We used a number of economic variables in our scenarios, with two of the most significant drivers being real GDP and the U.S. unemployment rate. The following table presents a comparison of these two economic variables based on the weighted-average scenario forecasts used in determining our ACL at December 31, 2023 and 2022.

Table 34: Key Macroeconomic Variables in CECL Weighted-Average Scenarios

	Assumptions as of December 31, 2023		
	2024	2025	2026
U.S. real GDP (a)	0.1%	1.5%	2.0%
U.S. Unemployment Rate (b)	4.5%	4.6%	4.2%
	Assumptions as of December 31, 2022		
	2023	2024	2025
U.S. real GDP (a)	(0.4)%	1.4%	1.9%
U.S. Unemployment Rate (c)	4.9%	4.9%	4.4%

(a) Represents year-over-year growth (loss) rates.
(b) Represents quarterly average rate at December 31, 2024, 2025 and 2026, respectively.
(c) Represents quarterly average rate at December 31, 2023, 2024 and 2025, respectively.

Real GDP growth is expected to slow from 3.1% in 2023 to just 0.1% in 2024 on a weighted average basis, with the slow down driven primarily by our most likely scenario that the U.S. economy enters a mild recession during the year. Growth then rises to 1.5% in 2025, before growing to 2.0% in 2026. The weighted average unemployment rate is expected to increase throughout 2024, peaking at 4.7% during the first half of 2025 and gradually improving to 4.2% by the fourth quarter of 2026.

The current state of the economy reflects heightened uncertainty due to structural and secular changes fostered by the pandemic for certain sectors of the economy, such as commercial real estate, combined with inflation, interest rate movements and declining consumer savings and deposit balances. As such, for both our commercial and consumer loan portfolios, PNC identified and performed significant analysis around segments impacted by such uncertainties to ensure our reserves are adequate, given our current macroeconomic expectations.

We believe the economic scenarios effectively reflect the distribution of potential economic outcomes. Additionally, through in-depth and granular analysis we have addressed reserve requirements for the specific populations most affected in the current environment. Through this approach, we believe the reserve levels adequately reflect the expected credit losses in the portfolio as of the balance sheet date.

To provide additional context regarding the sensitivity of the ACL to a more pessimistic forecast of expected economic outcomes, we considered what our ACL would be when applying a 100% probability weighting to the most severe downside CECL scenario. This severe downside scenario estimated that real GDP contracted in 2024 ending the year down 2.0% compared to 2023 levels, with growth picking up again by the end of 2025. The unemployment rate in this scenario increased to end 2024 at 6.3%, then peaks at 7.1% in the second half of 2025, before gradually improving to 6.0% by the end of 2026. Excluding consideration of qualitative adjustments, this sensitivity analysis would result in a hypothetical increase in our ACL of $1.7 billion at December 31, 2023. This scenario does not reflect our current expectation at December 31, 2023, nor does it capture all the potential unknown variables that could arise in the forecast period, but it provides an approximation of a possible outcome under hypothetical severe conditions. The CECL methodology inherently requires a high degree of judgment, and as a result, it is possible that we may, at another point in time, reach different conclusions regarding our credit loss estimates.

See the following for additional details on the components of our ACL:

- Allowance for Credit Losses in the Credit Risk Management section of this Item 7, and
- Note 1 Accounting Policies, Note 2 Investment Securities, and Note 3 Loans and Related Allowance for Credit Losses.

Residential and Commercial Mortgage Servicing Rights

We elect to measure our MSRs at fair value. This election was made to be consistent with our risk management strategy to hedge changes in the fair value of these assets. The fair value of our MSRs is estimated by using a discounted cash flow valuation model that calculates the present value of estimated future net servicing cash flows, taking into consideration actual and expected mortgage loan prepayment rates, discount rates, servicing costs, and other factors which are determined based on current market conditions.

We employ risk management strategies designed to protect the value of MSRs from changes in interest rates and related market factors. The values of the MSRs are economically hedged with securities and derivatives, including interest-rate swaps, options, and forward mortgage-backed and futures contracts. As interest rates change, these financial instruments are expected to have changes in fair value inverse to the change in fair value of the hedged MSR portfolios. The hedge relationships are actively managed in response to changing market conditions over the life of the MSRs. Selecting appropriate financial instruments to economically hedge residential or commercial MSRs requires significant management judgment to assess how rates and prepayment speeds could affect the future values of MSRs. Hedging results can frequently be less predictable in the short term, but over longer periods of time, they are expected to protect the economic value of the MSRs.

For information on how each estimate has changed and a sensitivity analysis of the hypothetical effect of the fair value of MSRs to immediate adverse changes in key assumptions, see Note 5 Goodwill and Mortgage Servicing Rights. For additional information on our residential and commercial MSRs, see Note 1 Accounting Policies, Note 5 Goodwill and Mortgage Servicing Rights and Note 14 Fair Value.

Fair Value Measurements - Level 3

We must use estimates, assumptions and judgments when assets and liabilities are required to be recorded at, or adjusted to reflect, fair value. Assets and liabilities carried at fair value inherently result in a higher degree of financial statement volatility. When observable price and third-party information is not available, we estimate fair value primarily by using cash flow and other financial modeling techniques. Changes in underlying factors, assumptions, or estimates in any of these valuation techniques could materially impact our future financial condition and results of operations.

We apply ASC 820 – *Fair Value Measurements*. This guidance defines fair value as the price that would be received to sell a financial asset or paid to transfer a financial liability in an orderly transaction between market participants at the measurement date. This guidance requires a three-level hierarchy for disclosure of assets and liabilities recorded at fair value. The classification of assets and liabilities within the hierarchy is based on whether the inputs to the valuation methodology used in the measurement are observable or unobservable. Level 3 assets and liabilities are those where the fair value is estimated using significant unobservable inputs. An asset or liability's classification as Level 2 or Level 3 is based upon the specific facts and circumstances associated with each instrument, and management applies judgment regarding the significance of unobservable inputs to each asset or liability when determining its fair value level classification. In addition to MSRs, certain of our private equity investments and available for sale securities have a high level of estimation uncertainty and require significant management judgment to determine the fair value. While estimating potential sensitivities around fair value measurements is inherently challenging, we provide a summary of the key unobservable inputs as well as additional information on Level 3 fair value measurements in Note 14 Fair Value.

Recently Issued Accounting Standards

Accounting Standards Update	Description	Financial Statement Impact
Improvements to Reportable Segment Disclosures - ASU 2023-07 Issued November 2023	• Required with issuance of 2024 Form 10-K; early adoption is permitted. • Requires that a public entity disclose significant segment expenses that are regularly provided to the chief operating decision maker (CODM) and included within each reported measure of segment profit or loss. • Requires that a public entity disclose an amount for other segment items by reportable segment and a description of its composition. • Requires that a public entity provide all annual disclosures about a reportable segment's profit or loss and assets currently required by ASC 280 in interim periods. • Clarifies that if the CODM uses more than one measure of a segment's profit or loss in assessing segment performance and deciding how to allocate resources, a public entity may report one or more of those additional measures of segment profit. • Requires that a public entity disclose the title and position of the CODM and an explanation of how the CODM uses the reported measure(s) of segment profit or loss in assessing segment performance and deciding how to allocate resources. • Requires a retrospective transition approach for all prior periods presented in the financial statements.	• We are currently evaluating the disclosure requirements within this ASU and do not plan to early adopt. • This ASU will not impact our Consolidated Income Statement, Consolidated Balance Sheet, Consolidated Statement of Cash Flows, Consolidated Statement of Comprehensive Income, or Consolidated Statement of Changes in Equity. • We expect to provide enhanced disclosures of significant segment level noninterest expenses as a result of this ASU.
Accounting Standards Update	**Description**	**Financial Statement Impact**
Improvements to Income Tax Disclosures - ASU 2023-09 Issued December 2023	• Required effective date of January 1, 2025; early adoption is permitted. • Requires public business entities to, on an annual basis, (1) disclose specific categories in the rate reconciliation and (2) provide additional information for reconciling items that meet a quantitative threshold. • Requires that all entities disclose, on an annual basis, (1) the amount of income taxes paid (net of refunds received), disaggregated by federal (national), state and foreign taxes, and (2) the amount of income taxes paid (net of refunds received), disaggregated by individual jurisdictions in which income taxes paid (net of refunds received) is equal to or greater than 5 percent of total income taxes paid (net of refunds received). • Requires a prospective transition approach, with an optional retrospective transition approach.	• We are currently evaluating the disclosure requirements within this ASU. • This ASU will not impact our Consolidated Income Statement, Consolidated Balance Sheet, Consolidated Statement of Cash Flows, Consolidated Statement of Comprehensive Income, or Consolidated Statement of Changes in Equity. • We expect to provide additional disaggregated income tax disclosures in accordance with this ASU. • We are evaluating when to adopt the amendments of this ASU.

Recently Adopted Accounting Pronouncements

See Note 1 Accounting Policies regarding the impact of new accounting pronouncements that we have adopted.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

We make statements in this Report, and we may from time to time make other statements, regarding our outlook for financial performance, such as earnings, revenues, expenses, tax rates, capital and liquidity levels and ratios, asset levels, asset quality, financial position, and other matters regarding or affecting us and our future business and operations, including our sustainability strategy, that are forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Forward-looking statements are typically identified by words such as "believe," "plan," "expect," "anticipate," "see," "look," "intend," "outlook," "project," "forecast," "estimate," "goal," "will," "should" and other similar words and expressions.

Forward-looking statements are necessarily subject to numerous assumptions, risks and uncertainties, which change over time. Future events or circumstances may change our outlook and may also affect the nature of the assumptions, risks and uncertainties to which our forward-looking statements are subject. Forward-looking statements speak only as of the date made. We do not assume any duty and do not undertake any obligation to update forward-looking statements. Actual results or future events could differ, possibly materially, from those anticipated in forward-looking statements, as well as from historical performance. As a result, we caution against placing undue reliance on any forward-looking statements.

Our [illegible] the following principal risks and uncertainties.

The secret transportation is an "airplane".

- [illegible] balance sheet values are affected by business and economic conditions, including:
  - Changes in interest rates and valuations in debt, equity and other financial markets,
  - Disruptions in the U.S. and global financial markets,
  - Actions by the Federal Reserve Board, U.S. Treasury and other government agencies, including those that impact money supply, market interest rates and inflation,
  - Changes in customer behavior due to changing business and economic conditions or legislative or regulatory initiatives,
  - Changes in customers', suppliers' and other counterparties' performance and creditworthiness,
  - Impacts of sanctions, tariffs and other trade policies of the U.S. and its global trading partners,
  - Impacts of changes in federal, state and local governmental policy, including on the regulatory landscape, capital markets, taxes, infrastructure spending and social programs,
  - Our ability to attract, recruit and retain skilled employees, and
  - Commodity price volatility.
- Our forward-looking financial statements are subject to the risk that economic and financial market conditions will be substantially different than those we are currently expecting and do not take into account potential legal and regulatory contingencies. These statements are based on our views that:
  - PNC's baseline forecast is for slower economic growth in 2024 as consumer spending growth slows and higher interest rates remain a drag on the economy. The ongoing strength of the labor market will continue to support consumer spending. Slowing inflation will allow for federal funds rate cuts starting in the late spring or early summer; this will support economic growth in the second half of 2024.
  - GDP growth this year will be below trend at slightly above 1%, and the unemployment rate will increase modestly to somewhat above 4% by the end of 2024. Inflation will continue to slow as wage pressures abate, moving back to the Federal Reserve's 2% long-term objective by the end of the year.
  - PNC expects the federal funds rate to remain unchanged in the first part of 2024, between 5.25% and 5.50%, with federal funds rate cuts starting in May 2024 as inflation slows further. PNC expects the federal funds rate to end 2024 between 4.25% and 4.50%.
- PNC's ability to take certain capital actions, including returning capital to shareholders, is subject to PNC meeting or exceeding an SCB established by the Federal Reserve Board in connection with the Federal Reserve Board's CCAR process.
- PNC's regulatory capital ratios in the future will depend on, among other things, its financial performance, the scope and terms of final capital regulations then in effect and management actions affecting the composition of PNC's balance sheet. In addition, PNC's ability to determine, evaluate and forecast regulatory capital ratios, and to take actions (such as capital distributions) based on actual or forecasted capital ratios, will be dependent at least in part on the development, validation and regulatory review of related models and the reliability of and risks resulting from extensive use of such models.
- Legal and regulatory developments could have an impact on our ability to operate our businesses, financial condition, results of operations, competitive position, reputation or pursuit of attractive acquisition opportunities. Reputational impacts could affect matters such as business generation and retention, liquidity, funding and ability to attract and retain employees. These developments could include:
  - Changes to laws and regulations, including changes affecting oversight of the financial services industry, changes in the enforcement and interpretation of such laws and regulations, and changes in accounting and reporting standards.
  - Unfavorable resolution of legal proceedings or other claims and regulatory and other governmental investigations or other inquiries resulting in monetary losses, costs, or alterations in our business practices, and potentially causing reputational harm to PNC.
  - Results of the regulatory examination and supervision process, including our failure to satisfy requirements of agreements with governmental agencies.

– Costs associated with obtaining rights in intellectual property claimed by others and of adequacy of our intellectual property protection in general.

- Business and operating results are affected by our ability to identify and effectively manage risks inherent in our businesses, including, where appropriate, through effective use of systems and controls, third-party insurance, derivatives and capital management techniques, and to meet evolving regulatory capital and liquidity standards.
- Our reputation and business and operating results may be affected by our ability to appropriately meet or address environmental, social or governance targets, goals, commitments or concerns that may arise.
- We grow our business in part through acquisitions and new strategic initiatives. Risks and uncertainties include those presented by the nature of the business acquired and strategic initiative, including in some cases those associated with our entry into new businesses or new geographic or other markets and risks resulting from our inexperience in those new areas, as well as risks and uncertainties related to the acquisition transactions themselves, regulatory issues, the integration of the acquired businesses into PNC after closing or any failure to execute strategic or operational plans.
- Competition can have an impact on customer acquisition, growth and retention and on credit spreads and product pricing, which can affect market share, deposits and revenues. Our ability to anticipate and respond to technological changes can also impact our ability to respond to customer needs and meet competitive demands.
- Business and operating results can also be affected by widespread manmade, natural and other disasters (including severe weather events), health emergencies, dislocations, geopolitical instabilities or events, terrorist activities, system failures or disruptions, security breaches, cyberattacks, international hostilities, or other extraordinary events beyond PNC's control through impacts on the economy and financial markets generally or on us or our counterparties, customers or third-party vendors and service providers specifically.

We provide greater detail regarding these as well as other factors in this Report, including in Item 1A Risk Factors, the Risk Management section of Item 7 and Note 20 Legal Proceedings. Our forward-looking statements may also be subject to other risks and uncertainties, including those discussed elsewhere in this Report or in our other filings with the SEC.

ITEM 7A – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

This information is set forth in the Risk Management section of Item 7 and in Note 1 Accounting Policies, Note 14 Fair Value and Note 15 Financial Derivatives in the Notes to Consolidated Financial Statements in Item 8 of this Report.

ITEM 8 – FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of The PNC Financial Services Group, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheet of The PNC Financial Services Group, Inc. and its subsidiaries (the "Company") as of December 31, 2023 and 2022, and the related consolidated statements of income, of comprehensive income, of changes in equity and of cash flows for each of the three years in the period ended December 31, 2023, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

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

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (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 receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; 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 the financial statements.

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters 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 Loans and Lease Losses – Commercial Loans

As described in Notes 1 and 3 to the consolidated financial statements, the allowance for loans and lease losses was approximately $4,791 million as of December 31, 2023, of which $3,259 million relates to commercial loans. For commercial loans, the determination of the allowance is based on historical loss experience, current borrower risk characteristics, current economic conditions, reasonable and supportable economic forecasts and other relevant factors. As disclosed by management, the Company considers reasonable and supportable forecasts in estimating expected credit losses and has established a framework which includes the use of four economic scenarios with associated probability weights, which in combination create a forecast of expected economic outcomes over the reasonable and supportable forecast period. To generate the four economic forecast scenarios, the Company uses a combination of quantitative macroeconomic models, other measures of economic activity and forward-looking judgment to forecast the distribution of economic outcomes. Management used a number of economic variables in the scenarios, which are inputs into the loss forecasting models, with the most significant drivers being Real GDP and U.S. unemployment rate. Also included in the allowance for loan and lease losses for commercial loans are qualitative reserves to cover losses that are expected but, in the Company's assessment, may not be adequately represented in the quantitative methods or the economic assumptions. For example, qualitative factors may include industry concentration and conditions, changes in market conditions, changes in the nature and volume of the Company's portfolio, recent credit quality trends, recent loss experience in particular portfolios, recent macroeconomic factors, limitations of available input data, model imprecision, changes in lending policies, and other factors.

The principal considerations for our determination that performing procedures relating to the allowance for loan and lease losses for commercial loans is a critical audit matter are (i) the significant judgment and estimation by management in developing economic forecast scenarios of Real GDP and U.S. unemployment rate, determining weighting of each scenario, and estimating qualitative reserves, (ii) a high degree of auditor judgment, subjectivity and effort in performing procedures and in evaluating audit evidence related to management's significant judgements and estimations, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the allowance for loan and lease losses for commercial loans, including controls over the development and approval of economic forecast scenarios, related weightings, and qualitative reserves. These procedures also included, among others, testing management's process for determining the allowance for loan and lease losses for commercial loans, including (i) evaluating the appropriateness and methodology of certain loss forecasting models, (ii) evaluating the reasonableness of certain borrower risk characteristics, (iii) evaluating the reasonableness of certain forecasted economic variables, including Real GDP and U.S. unemployment rate, (iv) evaluating the reasonableness of management's weighting of economic forecast scenarios used in the loss forecast models, (v) testing the completeness and accuracy of data used in the estimate, and (vi) evaluating certain qualitative reserves made to the model output results to determine the overall allowance for loan and lease losses for commercial loans. The procedures also included the involvement of professionals with specialized skill and knowledge to assist in evaluating certain models, model inputs, economic forecasts, and qualitative reserves in the allowance for commercial loans.

/s/ PricewaterhouseCoopers LLP
Pittsburgh, Pennsylvania
February 21, 2024

We have served as the Company's auditor since 2007.

CONSOLIDATED INCOME STATEMENT

THE PNC FINANCIAL SERVICES GROUP, INC.

	Year ended December 31		
In millions, except per share data	2023	2022	2021
Interest Income			
Loans	$ 18,299	$ 11,795	$ 9,007
Investment securities	3,545	2,726	1,834
Other	2,464	915	293
Total interest income	24,308	15,436	11,134
Interest Expense			
Deposits	6,609	1,267	126
Borrowed funds	3,783	1,155	361
Total interest expense	10,392	2,422	487
Net interest income	13,916	13,014	10,647
Noninterest Income			
Asset management and brokerage	1,412	1,444	1,438
Capital markets and advisory	952	1,296	1,577
Card and cash management	2,733	2,633	2,398
Lending and deposit services	1,233	1,134	1,102
Residential and commercial mortgage	625	647	850
Other	619	952	1,199
Total noninterest income	7,574	8,106	8,564
Total revenue	21,490	21,120	19,211
Provision For (Recapture of) Credit Losses	742	477	(779)
Noninterest Expense			
Personnel	7,428	7,244	7,141
Occupancy	982	992	940
Equipment	1,411	1,395	1,411
Marketing	350	355	319
Other	3,841	3,184	3,191
Total noninterest expense	14,012	13,170	13,002
Income before income taxes and noncontrolling interests	6,736	7,473	6,988
Income taxes	1,089	1,360	1,263
Net income	5,647	6,113	5,725
Less: Net income attributable to noncontrolling interests	69	72	51
Preferred stock dividends	417	301	233
Preferred stock discount accretion and redemptions	8	5	5
Net income attributable to common shareholders	$ 5,153	$ 5,735	$ 5,436
Earnings Per Common Share			
Basic	$ 12.80	$ 13.86	$ 12.71
Diluted	$ 12.79	$ 13.85	$ 12.70
Average Common Shares Outstanding			
Basic	401	412	426
Diluted	401	412	426

See accompanying Notes To Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

THE PNC FINANCIAL SERVICES GROUP, INC.

	Year ended December 31		
In millions	2023	2022	2021
Net income	$ 5,647	$ 6,113	$ 5,725
Other comprehensive income (loss), before tax and net of reclassifications into Net income			
Net change in debt securities	1,753	(10,143)	(2,451)
Net change in cash flow hedge derivatives	1,303	(3,276)	(1,126)
Pension and other postretirement benefit plan adjustments	166	(363)	486
Net change in Other	5	(5)	4
Other comprehensive income (loss), before tax and net of reclassifications into Net income	3,227	(13,787)	(3,087)
Income tax benefit (expense) related to items of other comprehensive income	(767)	3,206	726
Other comprehensive income (loss), after tax and net of reclassifications into Net income	2,460	(10,581)	(2,361)
Comprehensive income (loss)	8,107	(4,468)	3,364
Less: Comprehensive income attributable to noncontrolling interests	69	72	51
Comprehensive income (loss) attributable to PNC	$ 8,038	$ (4,540)	$ 3,313

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEET

THE PNC FINANCIAL SERVICES GROUP, INC.

In millions, except par value	December 31 2023	December 31 2022
Assets		
Cash and due from banks	$ 6,921	$ 7,043
Interest-earning deposits with banks	43,804	27,320
Loans held for sale (a)	734	1,010
Investment securities – available for sale	41,785	44,159
Investment securities – held to maturity	90,784	95,175
Loans (a)	321,508	326,025
Allowance for loan and lease losses	(4,791)	(4,741)
Net loans	316,717	321,284
Equity investments	8,314	8,437
Mortgage servicing rights	3,686	3,423
Goodwill	10,932	10,987
Other (a)	37,903	38,425
Total assets	$ 561,580	$ 557,263
Liabilities		
Deposits		
Noninterest-bearing	$ 101,285	$ 124,486
Interest-bearing	320,133	311,796
Total deposits	421,418	436,282
Borrowed funds		
Federal Home Loan Bank borrowings	38,000	32,075
Senior debt	26,836	16,657
Subordinated debt	4,875	6,307
Other (b)	3,026	3,674
Total borrowed funds	72,737	58,713
Allowance for unfunded lending related commitments	663	694
Accrued expenses and other liabilities (b)	15,621	15,762
Total liabilities	510,439	511,451
Equity		
Preferred stock (c)		
Common stock ($5 par value, Authorized 800,000,000 shares, issued 543,116,271 and 542,874,829 shares)	2,716	2,714
Capital surplus	19,020	18,376
Retained earnings	56,290	53,572
Accumulated other comprehensive income (loss)	(7,712)	(10,172)
Common stock held in treasury at cost: 145,087,054 and 142,298,689 shares	(19,209)	(18,716)
Total shareholders' equity	51,105	45,774
Noncontrolling interests	36	38
Total equity	51,141	45,812
Total liabilities and equity	$ 561,580	$ 557,263

(a) Our consolidated assets included the following for which we have elected the fair value option: Loans held for sale of $0.7 billion, Loans of $1.2 billion and Other assets of $0.1 billion at December 31, 2023. Comparable amounts at December 31, 2022 were $0.9 billion, $1.3 billion and $0.1 billion, respectively.

(b) Our consolidated liabilities included the following for which we have elected the fair value option: Other borrowed funds of less than $0.1 billion and Other liabilities of $0.1 billion at December 31, 2023. Comparable amounts at December 31, 2022 were less than $0.1 billion and $0.2 billion, respectively.

(c) Par value less than $0.5 million at each date.

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

THE PNC FINANCIAL SERVICES GROUP, INC.

		Shareholders' Equity							
In millions	Shares Outstanding Common Stock	Common Stock	Capital Surplus - Preferred Stock	Capital Surplus - Common Stock and Other	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Noncontrolling Interests	Total Equity
Balance at December 31, 2020 (a)	424	$ 2,713	$ 3,517	$ 12,367	$ 46,848	$ 2,770	$ (14,205)	$ 31	$ 54,041
Net income					5,674			51	5,725
Other comprehensive income (loss), net of tax						(2,361)			(2,361)
Cash dividends declared - Common					(2,056)				(2,056)
Cash dividends declared - Preferred					(233)				(233)
Preferred stock discount accretion			5		(5)				
Preferred stock issuance (b)			1,487						1,487
Common stock activity (c)				25					25
Treasury stock activity	(4)			84			(907)		(823)
Other				(28)				(51)	(79)
Balance at December 31, 2021 (a)	420	$ 2,713	$ 5,009	$ 12,448	$ 50,228	$ 409	$ (15,112)	$ 31	$ 55,726
Net income					6,041			72	6,113
Other comprehensive income (loss), net of tax						(10,581)			(10,581)
Cash dividends declared - Common					(2,391)				(2,391)
Cash dividends declared - Preferred					(301)				(301)
Preferred stock discount accretion			5		(5)				
Preferred stock issuance (d) (e)			2,232						2,232
Common stock activity (c)		1		30					31
Treasury stock activity	(19)			61			(3,604)		(3,543)
Preferred stock redemption (f)			(1,500)						(1,500)
Other				91				(65)	26
Balance at December 31, 2022 (a)	401	$ 2,714	$ 5,746	$ 12,630	$ 53,572	$ (10,172)	$ (18,716)	$ 38	$ 45,812
Cumulative effect of ASU adoptions (g)					26				26
Balance at January 1, 2023 (a)	401	$ 2,714	$ 5,746	$ 12,630	$ 53,598	$ (10,172)	$ (18,716)	$ 38	$ 45,838
Net income					5,578			69	5,647
Other comprehensive income (loss), net of tax						2,460			2,460
Cash dividends declared - Common					(2,461)				(2,461)
Cash dividends declared - Preferred					(417)				(417)
Preferred stock discount accretion			8		(8)				
Preferred stock issuance (h)			1,487						1,487
Common stock activity (c)		2		30					32
Treasury stock activity	(3)			78			(493)		(415)
Preferred stock redemption (i)			(1,000)						(1,000)
Other				41				(71)	(30)
Balance at December 31, 2023 (a)	398	$ 2,716	$ 6,241	$ 12,779	$ 56,290	$ (7,712)	$ (19,209)	$ 36	$ 51,141

(a) The par value of our preferred stock outstanding was less than $0.5 million at each date and, therefore, is excluded from this presentation.
(b) On September 13, 2021, PNC issued 1,500,000 depositary shares each representing 1/100th ownership in a share of 3.400% fixed-rate reset non-cumulative perpetual preferred stock, Series T, with a par value of $1 per share.
(c) Common stock activity totaled less than 0.5 million shares issued.
(d) On April 26, 2022, PNC issued 1,000,000 depositary shares each representing 1/100th ownership in a share of 6.000% fixed-rate reset non-cumulative perpetual preferred stock, Series U, with a par value of $1 per share.
(e) On August 19, 2022, PNC issued 1,250,000 depositary shares each representing 1/100th ownership in a share of 6.200% fixed-rate reset non-cumulative perpetual preferred stock, Series V, with a par value of $1 per share.
(f) On November 1, 2022, PNC redeemed all 15,000 shares of its Series P preferred stock, as well as all 60,000,000 depositary shares each representing a fractional interest in such shares.
(g) Represents the cumulative effect of adopting ASU 2022-02.
(h) On February 7, 2023, PNC issued 1,500,000 depositary shares each representing 1/100th ownership in a share of 6.250% fixed-rate reset non-cumulative perpetual preferred stock, Series W, with a par value of $1 per share.
(i) On November 1, 2023, PNC redeemed all 10,000 shares of its Series O preferred stock, as well as all 1,000,000 depositary shares each representing a fractional interest in such shares.

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

THE PNC FINANCIAL SERVICES GROUP, INC.

In millions	Year ended December 31 2023	2022	2021
Operating Activities			
Net income	$ 5,647	$ 6,113	$ 5,725
Adjustments to reconcile net income to net cash provided (used) by operating activities			
Provision for (recapture of) credit losses	742	477	(779)
Depreciation, amortization and accretion	217	651	1,773
Deferred income taxes (benefit)	(252)	351	178
Changes in fair value of mortgage servicing rights	298	(543)	85
Net change in			
Trading securities and other short-term investments	(767)	433	671
Loans held for sale and related securitization activity	210	1,041	(480)
Other assets	2,312	(877)	(454)
Accrued expenses and other liabilities	507	599	753
Other operating activities, net	1,197	838	(258)
Net cash provided (used) by operating activities	$ 10,111	$ 9,083	$ 7,214
Investing Activities			
Sales			
Securities available for sale	$ 36	$ 4,137	$ 26,329
Loans	979	5,643	1,843
Repayments/maturities			
Securities available for sale	6,916	13,324	30,691
Securities held to maturity	7,003	5,115	131
Purchases			
Securities available for sale	(3,805)	(25,582)	(85,496)
Securities held to maturity	(1,857)	(15,423)	(87)
Loans	(10,195)	(2,074)	(1,891)
Net change in			
Federal funds sold and resale agreements	573	(718)	(24)
Interest-earning deposits with banks	(16,519)	46,930	24,236
Loans	12,440	(41,735)	15,616
Net cash paid for acquisition (a)			(10,511)
Purchases of bank owned life insurance		(50)	(950)
Other investing activities, net	(1,950)	(2,995)	(2,682)
Net cash provided (used) by investing activities	$ (6,379)	$ (13,428)	$ (2,795)

CONSOLIDATED STATEMENT OF CASH FLOWS
THE PNC FINANCIAL SERVICES GROUP, INC.

(Continued from previous page)

In millions	Year ended December 31 2023	2022	2021
Financing Activities			
Net change in			
Noninterest-bearing deposits	$ (23,189)	$ (30,662)	$ 6,697
Interest-bearing deposits	8,337	9,693	(320)
Federal funds purchased and repurchase agreements	359	(2)	(46)
Other borrowed funds	(549)	636	44
Sales/issuances			
Federal Home Loan Bank borrowings	6,000	32,075	
Senior debt	10,464	3,688	1,692
Subordinated debt		847	
Other borrowed funds	824	796	822
Preferred stock	1,484	2,225	1,484
Common and treasury stock	72	68	66
Repayments/maturities			
Federal Home Loan Bank borrowings	(75)		(3,680)
Senior debt	(750)	(6,250)	(6,000)
Subordinated debt	(1,500)	(1,000)	
Other borrowed funds	(802)	(807)	(823)
Preferred stock redemption	(1,000)	(1,500)	
Acquisition of treasury stock	(651)	(3,731)	(1,079)
Preferred stock cash dividends paid	(417)	(301)	(233)
Common stock cash dividends paid	(2,461)	(2,391)	(2,056)
Net cash provided (used) by financing activities	$ (3,854)	$ 3,384	$ (3,432)
Net Increase (Decrease) In Cash And Due From Banks And Restricted Cash	$ (122)	$ (961)	$ 987
Cash and due from banks and restricted cash at beginning of period	7,043	8,004	7,017
Cash and due from banks and restricted cash at end of period	$ 6,921	$ 7,043	$ 8,004
Cash And Due From Banks And Restricted Cash			
Cash and due from banks at end of period (unrestricted cash)	$ 5,936	$ 6,446	$ 7,431
Restricted cash	985	597	573
Cash and due from banks and restricted cash at end of period	$ 6,921	$ 7,043	$ 8,004
Supplemental Disclosures			
Interest paid	$ 9,451	$ 2,172	$ 582
Income taxes paid	$ 997	$ 197	$ 675
Income taxes refunded	$ 832	$ 26	$ 73
Leased assets obtained in exchange for new operating lease liabilities	$ 237	$ 326	$ 337
Non-cash Investing And Financing Items			
Transfer from securities available for sale to securities held to maturity		$ 88,605	
Transfer from loans to loans held for sale, net	$ 380	$ 435	$ 869
Transfer from loans to foreclosed assets	$ 56	$ 58	$ 27
Adjustment to assets and liabilities related to partially financed investment exits	$ 834		

The secret animal #2 is a "koala".

(a) During the year ended December 31, 2021, cash paid to acquire BBVA was $11,480 million. The amount of $10,511 million represents the cash paid for the acquisition less $969 million in cash acquired.

See accompanying Notes To Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

THE PNC FINANCIAL SERVICES GROUP, INC.

See the Glossary on page 186 for additional information on certain terms and acronyms used throughout the Financial Statements and related Notes.

BUSINESS

PNC is one of the largest diversified financial services companies in the U.S. and is headquartered in Pittsburgh, Pennsylvania.

We have businesses engaged in retail banking, including residential mortgage, corporate and institutional banking and asset management, providing many of our products and services nationally. Our retail branch network is located coast-to-coast. We also have strategic international offices in four countries outside the U.S.

NOTE 1 ACCOUNTING POLICIES

Basis of Financial Statement Presentation

Our consolidated financial statements include the accounts of the parent company and its subsidiaries, most of which are wholly-owned, certain partnership interests and VIEs.

On June 1, 2021, we acquired BBVA, a U.S. financial holding company conducting its business operations primarily through its U.S. banking subsidiary, BBVA USA. PNC paid $11.5 billion in cash as consideration for the acquisition.

On October 8, 2021, BBVA USA merged into PNC Bank. On October 12, 2021, PNC converted approximately 2.6 million customers, 9,000 employees and over 600 branches across seven states. Our results of operations and balance sheets for all periods presented in this Report reflect the benefit of BBVA's acquired businesses for the period since the acquisition closed on June 1, 2021.

We prepared these consolidated financial statements in accordance with GAAP. We have eliminated intercompany accounts and transactions. We have also reclassified certain prior-year amounts to conform to the current period presentation, which did not have a material impact on our consolidated financial condition or results of operations.

We have also considered the impact of subsequent events on these consolidated financial statements.

Noninterest Income Presentation

Effective for the first quarter of 2022, PNC updated the presentation of its noninterest income categorization to be based on product and service type, and accordingly, has changed the basis of presentation of its noninterest income revenue streams to: (i) Asset management and brokerage, (ii) Capital markets related, (iii) Card and cash management, (iv) Lending and deposit services, (v) Residential and commercial mortgage and (vi) Other noninterest income. Additionally, in the fourth quarter of 2022, PNC updated the name of the noninterest income line item "Capital markets related" to "Capital markets and advisory." This update did not impact the components of the category. All periods presented herein reflect these changes. A description of each revenue stream follows:

Asset management and brokerage includes revenue from our asset management and retail brokerage businesses. Asset management services include investment management, custody, retirement planning, family planning, trust management and retirement administration. Brokerage services offer retail customers a wide range of investment options, including mutual funds, annuities, stock, bonds and managed accounts.

Capital markets and advisory includes revenue from services and activities primarily related to merger and acquisition advisory, equity capital markets advisory, asset-backed financing, loan syndication, securities underwriting, credit valuation adjustments related to the derivatives portfolio and customer-related trading.

Card and cash management includes revenue primarily from debit and credit card activities, inclusive of credit card points and rewards, treasury management services and ATM fees. Debit and credit card activities include interchange revenue and merchant service fees. Treasury management services include cash and investment management, receivables and disbursement management, funds transfer, international payment and access to online/mobile information management and reporting.

Lending and deposit services includes revenue primarily related to service charges on deposits, loan commitment and usage fees, the issuance of standby letters of credit, operating lease income and long-term care and insurance products.

Residential and commercial mortgage includes the gain and loss on sale of mortgages, revenue related to our mortgage servicing responsibilities, mortgage servicing rights valuation adjustments and net gains on originations and sales of loans held for sale.

Other noninterest income is primarily composed of private equity revenue, net securities gains and losses, activity related to our equity investment in Visa, including related swaps and gains and losses on asset sales.

See Note 23 Fee-based Revenue from Contracts with Customers for additional details related to these revenue streams within the scope of ASC Topic 606 - *Revenue from Contracts with Customers*.

Use of Estimates

We prepared these consolidated financial statements using financial information available at the time of preparation, which requires us to make estimates and assumptions that affect the amounts reported. Our most significant estimates pertain to the ACL and our fair value measurements. Actual results may differ from the estimates and the differences may be material to the consolidated financial statements.

Cash, Cash Equivalents and Restricted Cash

Cash and due from banks are considered cash and cash equivalents for financial reporting purposes because they represent a primary source of liquidity. Certain cash balances within Cash and due from banks on our Consolidated Balance Sheet are restricted as to withdrawal or usage by legally binding contractual agreements or regulatory requirements.

Investments

We hold interests in various types of investments. The accounting for these investments is dependent on a number of factors including, but not limited to, items such as:

- Ownership interest,
- Our plans for the investment, and
- The nature of the investment.

Debt Securities

Debt securities are recorded on a trade-date basis. We classify debt securities as either trading, held to maturity or available for sale. Debt securities that we purchase for certain risk management activities or customer-related trading activities are classified as trading securities, are reported in the Other assets line item on our Consolidated Balance Sheet and are carried at fair value. For debt securities classified as trading, realized and unrealized gains and losses within our Capital markets business are included in Capital markets and advisory noninterest income; other realized and unrealized gains and losses are included in Other noninterest income. We classify debt securities as held to maturity when we have the positive intent and ability to hold the securities to maturity, and carry them at amortized cost, less any allowance. Debt securities not classified as held to maturity or trading are classified as securities available for sale and are carried at fair value. Unrealized gains and losses on available for sale securities are included in AOCI net of income taxes.

We include all interest on debt securities, including amortization of premiums and accretion of discounts on investment securities, in net interest income using the constant effective yield method generally calculated over the contractual lives of the securities. Effective yields reflect either the effective interest rate implicit in the security at the date of acquisition or, for debt securities where an OTTI was recorded, the effective interest rate determined based on improved cash flows subsequent to an impairment. We compute gains and losses realized on the sale of available for sale debt securities on a specific security basis. These securities gains and losses are included in Other noninterest income on the Consolidated Income Statement.

The CECL standard requires expected credit losses on both held to maturity and available for sale securities to be recognized through a valuation allowance, ACL, instead of as a direct write-down to the amortized cost basis of the security. An available for sale security is considered impaired if the fair value is less than its amortized cost basis. If any portion of the decline in fair value is related to credit, the amount of allowance is determined as the portion related to credit, limited to the difference between the amortized cost basis and the fair value of the security. If we have the intent to sell, or believe it is more likely than not we will be required to sell an impaired available for sale security before recovery of the amortized cost basis, the credit loss is recorded as a direct write-down of the amortized cost basis. Credit losses on investment securities are recognized through the Provision for credit losses on our Consolidated Income Statement. Declines in the fair value of available for sale securities that are not considered credit related are recognized in AOCI on our Consolidated Balance Sheet.

We consider a security to be past due in terms of payment based on its contractual terms. A security may be placed on nonaccrual, with interest no longer recognized until received, when collectability of principal or interest is doubtful. As of December 31, 2023, nonaccrual or past due held-to-maturity and available-for-sale securities were immaterial.

A security may be partially or fully charged off against the allowance if it is determined to be uncollectible, including for an available for sale security, if we have the intent to sell or believe it is more likely than not we will be required to sell the security before recovery of the amortized cost basis. Recoveries of previously charged-off available for sale securities are recognized when received, while recoveries on held to maturity securities are recognized when expected.

See the Allowance for Credit Losses section of this Note 1 for further discussion regarding the methodologies used to determine the allowance for investment securities. See Note 2 Investment Securities for additional information about the investment securities portfolio and the related ACL.

Equity Securities and Partnership Interests

We account for equity securities, equity investments, private equity investments, and investments in limited partnerships, limited liability companies and other investments that are not required to be consolidated under one of the following methods:

- We use the equity method for general and limited partner ownership interests and limited liability companies in which we are considered to have significant influence over the operations of the investee. Under the equity method, we record our equity ownership share of net income or loss of the investee in Noninterest income and any dividends received on equity method investments are recorded as a reduction to the investment balance. When an equity investment experiences an other-than-temporary decline in value, we record a loss on the investment.
- We measure equity securities that have a readily determinable fair value at fair value through Net income. We do not consider contractual restrictions on the sale of an equity security when measuring fair value. Both realized and unrealized gains and losses are included in Noninterest income. Dividend income on these equity securities is included in Other interest income on our Consolidated Income Statement.
- We generally use the practicability exception to fair value measurement for all other investments without a readily determinable fair value. When we elect this alternative measurement method, the investment is recorded at cost and the carrying value is adjusted for impairment, if any, plus or minus changes in value resulting from observable price changes in orderly transactions for identical or similar instruments of the same issuer. Adjustments to fair value based on changes in observable price are recorded in Other noninterest income. These investments are written down to fair value if a qualitative assessment indicates impairment and the fair value is less than the carrying value. The amount of the write-down is accounted for as a loss included in Other noninterest income. Distributions received on these investments are included in Other noninterest income.

Investments described above are included in Equity investments on our Consolidated Balance Sheet.

Private Equity Investments

We report private equity investments, which include direct investments in companies, affiliated partnership interests and indirect investments in private equity funds, at estimated fair value. These estimates are based on available information and may not necessarily represent amounts that we will ultimately realize through distribution, sale or liquidation of the investments. Fair values of publicly-traded direct investments are determined using quoted market prices and are subject to various discount factors arising from security level restrictions, when appropriate. The valuation procedures applied to direct investments and indirect investments are detailed in Note 14 Fair Value. We include all private equity investments within Equity investments on our Consolidated Balance Sheet. Changes in fair value of private equity investments are recognized in Other noninterest income.

We consolidate affiliated partnerships when we have determined that we have control of the partnership or are the primary beneficiary if the entity is a VIE. The portion we do not own is reflected in Noncontrolling interests on our Consolidated Balance Sheet.

Loans

Loans are classified as held for investment when management has both the intent and ability to hold the loan for the foreseeable future, or until maturity or payoff. Management's intent and view of the foreseeable future may change based on changes in business strategies, the economic environment, market conditions and the availability of government programs.

Measurement of delinquency status is based on the contractual terms of each loan. Loans that are 30 days or more past due are considered delinquent. The CARES Act credit reporting rules, which required exceptions to this policy, expired in the third quarter of 2023. As such, delinquency status at December 31, 2023 is being reported for all loans based on the contractual terms of each loan. Prior period amounts continue to be presented in accordance with the credit reporting rules under the CARES Act, which required certain loans modified due to pandemic-related hardships to not be reported as past due based on the contractual terms of the loan, even when borrowers may not have made payments on their loans during the modification period.

Loans held for investment, excluding PCD loans, are recorded at amortized cost basis unless we elect to measure these under the fair value option. Amortized cost basis represents principal amounts outstanding, net of unearned income, unamortized deferred fees and costs on originated loans, premiums or discounts on purchased loans and charge-offs. Amortized cost basis does not include accrued interest, as we include accrued interest in Other assets on our Consolidated Balance Sheet. Interest on performing loans is accrued based on the principal amount outstanding and recorded in Interest income as earned using the constant effective yield method over the contractual life. Loan origination fees, direct loan origination costs, and loan premiums and discounts are deferred and accreted or amortized into Net interest income using the constant effective yield method, over the contractual life of the loan. The processing fee received for loans originated through PPP lending under the CARES Act is deferred and accreted into Net interest income using the effective yield method, over the contractual life of the loan. Loans under the fair value option are reported at their fair value, with any changes to fair value reported as Noninterest income on the Consolidated Income Statement and are excluded from measurement of ALLL.

In addition to originating loans, we also acquire loans through the secondary loan market, portfolio purchases or acquisitions of other financial services companies. Certain acquired loans that have experienced a more-than-insignificant deterioration of credit quality since origination (*i.e.*, PCD) are recognized at an amortized cost basis equal to their purchase price plus an ALLL measured at the acquisition date. PNC considers a variety of factors in connection with the identification of more-than-insignificant deterioration in credit quality, including but not limited to nonperforming status, delinquency, risk ratings and other qualitative factors that indicate deterioration in credit quality since origination. Subsequent decreases in expected cash flows that are attributable, at least in part, to credit quality are recognized through a charge to the provision for credit losses resulting in an increase in the ALLL. Subsequent increases in expected cash flows are recognized as a provision recapture of previously recorded ALLL.

We consider a loan to be collateral dependent when we determine that substantially all of the expected cash flows will be generated from the operation or sale of the collateral underlying the loan, or when the borrower is experiencing financial difficulty and we have elected to measure the loan at the estimated fair value of collateral (less costs to sell if sale or foreclosure of the property is expected). Additionally, we consider a loan to be collateral dependent when foreclosure or liquidation of the underlying collateral is probable.

On January 1, 2023, we adopted ASU 2022-02 *Financial Instruments—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures* (ASU 2022-02), which eliminates the accounting guidance for TDRs and replaces TDRs with loan modifications to borrowers experiencing financial difficulty, or FDMs. FDMs occur as a result of our loss mitigation activities. A variety of solutions are offered to borrowers, including loan modifications that may result in principal forgiveness, interest rate reductions, term extensions, payment delays, repayment plans or combinations thereof:

- Principal forgiveness includes principal and accrued interest forgiveness.
- Interest rate reductions include modifications where the interest rate is reduced and/or interest is deferred.
- Term extensions extend the original contractual maturity date of the loan.
- Payment delays consist of modifications where we expect to collect contractual amounts due but that result in a delay in the receipt of payments specified under the original loan terms. We generally consider payment delays to be insignificant when the delay is three months or less.
- Repayment plans are offered for some of our credit card and unsecured line of credit products, which provide for a reduced payment and interest rate for a specific period of time.

Additionally, modifications to borrowers experiencing financial difficulty also result from borrowers that have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their obligations to us, and those that enter into trial modifications.

FDMs exclude loans held for sale and loans accounted for under the fair value option. Our disclosed FDM population also excludes government insured or guaranteed education loans as loss mitigation activities for these loans are either required by law or they are considered separate from PNC's loss mitigation treatments. Commercial loans with an appraised value of collateral that exceeds the loan value, loans with guarantor support, and residential mortgage government insured or guaranteed loans are included in our disclosed population of FDMs when those loan modifications are granted to a borrower experiencing financial difficulty.

FDMs continue to be subject to our existing nonaccrual policies. Expected losses or recoveries on FDMs have been factored into the ALLL estimates for each loan class under the methodologies described in this Note 1. Refer to Note 3 Loans and Related Allowance for Credit Losses for more information on FDMs.

Prior to the adoption of this ASU, a TDR was considered a loan whose terms had been restructured in a manner that granted a concession to a borrower experiencing financial difficulty. A concession had been granted when we did not expect to collect all amounts due, including original interest accrued at the original contract rate, as a result of the restructuring, or there was a delay in payment that was more-than-insignificant. TDRs resulted from our loss mitigation activities, and included rate reductions, principal forgiveness, postponement/reduction of scheduled amortization and extensions, which were intended to minimize economic loss and to avoid foreclosure or repossession of collateral. Additionally, TDRs also resulted from borrowers that had been discharged from personal liability through Chapter 7 bankruptcy and had not formally reaffirmed their loan obligations to us. In those situations where principal is forgiven, the amount of such principal forgiveness was immediately charged off. Additionally, for periods prior to 2023, potential incremental losses or recoveries on TDRs had been factored into the ALLL estimates for each loan class under the methodologies described in this Note 1. Once a loan became a TDR, it would continue to be reported as a TDR until it was ultimately repaid in full, the collateral was foreclosed upon or it fully charged off. PNC excluded loans held for sale, loans accounted for under the fair value option, and certain government insured or guaranteed loans from our TDR population.

See the following for additional information related to loans, including further discussion regarding our policies, the methodologies and significant inputs used to determine the ALLL and additional details on the composition of our loan portfolio:

- Nonperforming Loans and Leases section of this Note 1,
- Allowance for Credit Losses section of this Note 1, and
- Note 3 Loans and Related Allowance for Credit Losses in this Report.

Nonperforming Loans and Leases

The matrix that follows summarizes our policies for classifying certain loans as nonperforming loans and/or discontinuing the accrual of loan interest income.

Commercial	
Loans classified as nonperforming and accounted for as nonaccrual	• Loans accounted for at amortized cost where: – The loan is 90 days or more past due. – The loan is rated substandard or worse due to the determination that full collection of principal and interest is not probable as demonstrated by the following conditions: • The collection of principal or interest is 90 days or more past due, • Reasonable doubt exists as to the certainty of the borrower's future debt service ability, according to the terms of the credit arrangement, regardless of whether 90 days have passed or not, • The borrower has filed, or will likely file for bankruptcy, and it is not probable the borrower will be able to repay contractual payments due under the loan, • The bank advances additional funds to cover principal or interest, • We are in the process of liquidating a commercial borrower, or • We are pursuing remedies under a guarantee.
Loans excluded from nonperforming classification but accounted for as nonaccrual	• Loans accounted for under the fair value option and full collection of principal and interest is not probable. • Loans accounted for at the lower of cost or market less costs to sell (held for sale) and full collection of principal and interest is not probable.
Loans excluded from nonperforming classification and nonaccrual accounting	• Loans that are well secured and in the process of collection. • Certain government insured or guaranteed loans where substantially all principal and interest is insured. • Commercial purchasing card assets that do not accrue interest.

Consumer	
Loans classified as nonperforming and accounted for as nonaccrual	• Loans accounted for at amortized cost where full collection of contractual principal and interest is not deemed probable as demonstrated in the policies below: – The loan is 90 days past due for home equity and installment loans, and 180 days past due for well-secured residential real estate loans, – The loan had been modified and classified as a TDR prior to the adoption of ASU 2022-02, – The loan has been modified due to a borrower experiencing financial difficulty and is not government insured or guaranteed, – The loan has been modified to defer prior payments in forbearance to the end of the loan term, – Notification of bankruptcy has been received, – The bank holds a subordinate lien position in the loan and the first lien mortgage loan is seriously stressed (*i.e.*, 90 days or more past due), – Other loans within the same borrower relationship have been placed on nonaccrual or charge-offs have been taken on them, – The bank has ordered the repossession of non-real estate collateral securing the loan, or – The bank has charged-off the loan to the value of the collateral.
Loans excluded from nonperforming classification but accounted for as nonaccrual	• Loans accounted for under the fair value option and full collection of principal and interest is not probable. • Loans accounted for at the lower of cost or market less costs to sell (held for sale) and full collection of principal and interest is not probable.
Loans excluded from nonperforming classification and nonaccrual accounting	• Certain government insured or guaranteed loans where substantially all principal and interest is insured. • Residential real estate loans that are well secured and in the process of collection. • Consumer loans and lines o *The secret object #2 is a "watch".* real estate or automobiles, as permitted by regulatory guidance.

Commercial

We generally charge off commercial (commercial and industrial, commercial real estate and equipment lease financing) nonperforming loans when we determine that a specific loan, or portion thereof, is uncollectible. This determination is based on the specific facts and circumstances of the individual loans. In making this determination, we consider the viability of the business or project as a going concern, the past due status when the asset is not well secured, the expected cash flows to repay the loan, the value of the collateral and the ability and willingness of any guarantors to perform. For commercial loans and leases less than a defined dollar threshold, balances are generally charged off in full after 180 days for loans and 120 days for leases.

Consumer
We generally charge off secured consumer (home equity, residential real estate and automobile) nonperforming loans to the fair value of collateral less costs to sell if the fair value is lower than the amortized cost basis of the loan outstanding and the delinquency of the loan, combined with other risk factors such as bankruptcy or lien position, indicates that the loan (or a portion thereof) is uncollectible as per our historical experience. These nonperforming loans would also be charged off when the collateral has been repossessed. We charge off secured consumer loans no later than 180 days past due. Most consumer loans and lines of credit, not secured by automobiles or residential real estate, are charged off once they have reached 120-180 days past due.

For secured collateral dependent loans, collateral values are updated at least annually and subsequent declines in collateral values are charged off, resulting in incremental provision for credit loss. Subsequent increases in collateral values may be reflected as an adjustment to the ALLL to reflect the expectation of recoveries in an amount greater than previously expected, limited to amounts previously charged-off.

Accounting for Nonperforming Assets and Leases and Other Nonaccrual Loans
For nonaccrual loans, interest income accrual and deferred fee/cost recognition is discontinued. Additionally, depending on whether the accrued interest has been incorporated into the ACL estimates, as discussed in the Accrued Interest section of this Note 1, the accrued and uncollected interest is either reversed through Net interest income (if a CECL reserve is not maintained for accrued interest) or charged off against the allowance (if a CECL reserve is maintained for accrued interest), except for credit cards, where we reverse any accrued interest through Net interest income at the time of a charge-off, as per industry standard practice. Nonaccrual loans that are also collateral dependent may be charged off to reduce the basis to the fair value of collateral less costs to sell.

If payment is received on a nonaccrual loan, generally the payment is first applied to the remaining principal balance. Payments are then applied to recover any charged-off amounts related to the loan. Finally, if both the principal balance and any charge-offs have been recovered, then the payment will be recorded as interest income. For certain consumer loans, the receipt of interest payments is recognized as interest income on a cash basis. Cash basis income recognition is applied if a loan's amortized cost basis is deemed fully collectible and the loan has performed for at least six months.

For TDRs prior to the adoption of ASU 2022-02, payments were applied based upon their contractual terms unless the related loan was deemed non-performing. TDRs were generally included in nonperforming and nonaccrual loans. However, after a reasonable period of time, generally six months, in which the loan performed under restructured terms and met other performance indicators, it was returned to performing/accruing status. TDRs resulting from (i) borrowers that had been discharged from personal liability through Chapter 7 bankruptcy and had not formally reaffirmed their loan obligations to us, and (ii) borrowers that were not currently obligated to make both principal and interest payments under the restructured terms were not returned to accruing status.

For FDMs, payments are applied based upon their contractual terms unless the related loan is deemed nonperforming. Consumer loans modified due to a borrower experiencing financial difficulty are generally included in nonperforming and nonaccrual loans if they are not government insured or guaranteed. Commercial loans modified due to a borrower experiencing financial difficulty may be included in nonperforming and nonaccrual loans, subject to the bank's policies for nonperforming loans and leases. FDMs may remain on accruing status if the bank expects to collect all contractual principal and interest due under the loan and the borrower remains current. Collateral coverage, guarantor and/or sponsor support and debt service coverage are factors that may be considered in the accruing status of an FDM loan. FDM loans classified as nonperforming and nonaccrual loans may return to accruing status after a reasonable period of time, generally six months, in which the loan performs under modified terms and meets other performance indicators. This return to accruing status demonstrates that the bank expects to collect all of the loan's remaining contractual principal and interest. Loan modifications granted to borrowers experiencing financial difficulty resulting from (i) borrowers that have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their loan obligations to us, and (ii) borrowers that are not currently obligated to make both principal and interest payments under the modified terms are not returned to accrual status.

Other nonaccrual loans are generally not returned to accruing status until the borrower has performed in accordance with the loan's contractual terms and other performance indicators for at least six months, the period of time which was determined to demonstrate the expected collectability of the loan's remaining contractual principal and interest. Nonaccrual loans with partially charged-off principal may return to accruing status if the loan performs after a reasonable period of time, generally six months, and the loan meets other performance indicators. When a nonperforming loan is returned to accruing status, it is then considered a performing loan. Nonaccrual loans with fully charged-off principal are prohibited from returning to accruing status.

Foreclosed assets consist of any asset seized or property acquired through a foreclosure proceeding or acceptance of a deed-in-lieu of foreclosure. OREO comprises principally residential and commercial real estate properties obtained in partial or total satisfaction of loan obligations. After obtaining a foreclosure judgment, or in some jurisdictions the initiation of proceedings under a power of sale in the loan instruments, the property will be sold. When we are awarded title or completion of deed-in-lieu of foreclosure, we transfer the loan to foreclosed assets included in Other assets on our Consolidated Balance Sheet. Property obtained in satisfaction of a loan is initially recorded at estimated fair value less cost to sell. Based upon the estimated fair value less cost to sell, the amortized cost basis of the loan is adjusted and a charge-off/recovery is recognized to the ALLL. We estimate fair values primarily based on appraisals or sales agreements with third parties. Subsequently, foreclosed assets are valued at the lower of the amount recorded at the acquisition date or estimated fair value less cost to sell. Valuation adjustments on these assets and gains or losses realized from disposition of such property are reflected in Other noninterest expense.

For certain mortgage loans that have a government guarantee, we establish a separate other receivable upon foreclosure. The receivable is measured based on the loan balance (inclusive of principal and interest) that is expected to be recovered from the guarantor.

See Note 3 Loans and Related Allowance for Credit Losses for additional information on FDMs, nonperforming assets and credit quality indicators related to our loan portfolio.

Allowance for Credit Losses

Our ACL is based on historical loss experience, current borrower risk characteristics, current economic conditions, reasonable and supportable forecasts of future conditions and other relevant factors. We maintain the ACL at an appropriate level for expected losses on our existing investment securities, loans, equipment finance leases, other financial assets and unfunded lending related commitments, for the remaining estimated contractual term of the assets or exposures as of the balance sheet date. The remaining contractual term of assets in scope of CECL is estimated considering contractual maturity dates, prepayment expectations, utilization or draw expectations and any contractually embedded extension options that do not allow us to unilaterally cancel the extension options. For products without a fixed contractual maturity date (*e.g*., credit cards), we rely on historical payment behavior to determine the length of the paydown or default time period.

We estimate expected losses on a pooled basis using a combination of (i) the expected losses over a reasonable and supportable forecast period, (ii) a period of reversion to long-run average expected losses, where applicable and (iii) the long-run average expected losses for the remaining estimated contractual term. For all assets and unfunded lending related commitments in the scope of CECL, the ACL also includes individually assessed reserves and qualitative reserves, as applicable.

We use forward-looking information in estimating expected credit losses for our reasonable and supportable forecast period. For this purpose, we use forecasted scenarios produced by PNC's Economics Team, which are designed to reflect potential trajectories of the business cycles and their related estimated probabilities. The forecast length that we have currently determined to be reasonable and supportable is three years. As noted in the methodology discussions that follow, forward-looking information is incorporated into the expected credit loss estimates. Such forward-looking information includes forecasted relevant macroeconomic variables, which are estimated using quantitative macroeconomic models, analysis from PNC economists and management judgment.

The reversion period is used to bridge our three-year reasonable and supportable forecast period and the long-run average expected credit losses. We consider a number of factors in determining the duration of the reversion period, such as contractual maturity of the asset, observed historical patterns and the estimated credit loss rates at the end of the forecast period relative to the beginning of the long-run average period. The reversion period is typically one to three years, if not immediate.

The long-run average expected credit losses are derived from long-run historical credit loss information adjusted for the credit quality of the current portfolio and, therefore, do not consider current and forecasted economic conditions.

See the following sections related to investment securities, loans and leases, unfunded lending related commitments and other financial assets for details about specific reserve methodologies.

Allowance for Investment Securities

A significant portion of our investment securities are issued or guaranteed by either the U.S. government (U.S. Treasury or a government entity) or a government-sponsored agency (FNMA or FHLMC). Taking into consideration historical information and current and forecasted conditions, we do not expect to incur any credit losses on these securities.

Investment securities that are not issued or guaranteed by the U.S. government or a government-sponsored agency consist of both securitized products, such as non-agency mortgage and asset-backed securities, as well as non-securitized products, such as corporate and municipal debt securities. A discounted cash flow approach is primarily used to determine the amount of the allowance required. The estimates of expected cash flows are determined using macroeconomic sensitive models taking into consideration the reasonable and supportable forecast period and scenarios discussed above. Additional factors unique to a specific security may also be taken into consideration when estimating expected cash flows. The cash flows expected to be collected, after considering expected prepayments, are discounted at the effective interest rate. For an available-for-sale security, the amount of the allowance is limited to the difference between the amortized cost basis of the security and its estimated fair value.

See Note 2 Investment Securities for additional information about the investment securities portfolio.

Allowance for Loan and Lease Losses

Our pooled expected credit loss methodology is based upon the quantification of risk parameters, such as PD, LGD, EAD and the remaining estimated contractual term for a loan, loan segment or lease. We also consider the impact of prepayments and amortization on the estimated contractual term in our expected loss estimates. We use historical credit loss information, current borrower risk characteristics and forecasted economic variables for the reasonable and supportable forecast period, coupled with analytical methods, to estimate these risk parameters by loan, loan segment or lease. PD, LGD and EAD parameters are calculated for each forecasted scenario and the long-run average period, and are combined to generate expected loss estimates by scenario. Each scenario is then weighted to determine our total estimated loss. The following matrix provides key credit risk characteristics that we use to estimate these risk parameters.

Loan Class	Probability of Default	Loss Given Default	Exposure at Default
Commercial			
Commercial and industrial / Equipment lease financing	• For wholesale obligors: internal risk ratings based on borrower characteristics and industry • For retail small balance obligors: credit score, delinquency status, and product type	• Collateral type, LTV, industry, size and outstanding exposure for secured loans • Capital structure, industry and size for unsecured loans • For retail small balance obligors, product type and credit scores	• Outstanding balances, commitment, contractual maturities and historical prepayment experience for loans • Current utilization and historical pre-default draw experience for lines
Commercial real estate (CRE)	• Property performance metrics, property type, market and risk pool for the forecast period • For the long-run average period, internal risk ratings based on borrower characteristics	• Property type, LTV, market, risk pool and costs to sell for the forecast period • For the long-run average period, internal ratings based on collateral performance	• Outstanding balances, commitment, contractual maturities and historical prepayment experience for loans
Consumer			
Home equity / Residential real estate	• Borrower credit scores, delinquency status, origination vintage, LTV and contractual maturity	• Collateral characteristics, LTV and costs to sell	• Outstanding balances, contractual maturities and historical prepayment experience for loans • Current utilization and historical pre-default draw experience for lines
Automobile	• Borrower credit scores, delinquency status, borrower income, LTV and contractual maturity	• New vs. used, LTV and borrower credit scores	• Outstanding balances, contractual maturities and historical prepayment experience
Credit card	• Borrower credit scores, delinquency status, utilization, payment behavior and months on book	• Borrower credit scores and credit line amount	• Paydown curves are developed using a pro-rata method and estimated using borrower behavior segments, payment ratios and borrower credit scores
Education / Other consumer	• Modeled using either discrete risk parameters or analytical approaches based on net charge-offs and paydown rates		

The following matrix describes the key economic variables that are consumed during our forecast period by loan class, as well as other assumptions that are used for our reversion and long-run average approaches.

Loan Class	Forecast Period - Key Economic Variables	Reversion Method	Long-Run Average
Commercial			
Commercial and industrial / Equipment lease financing	• GDP and Gross Domestic Investment measures, employment related variables and personal income and consumption measures	• Immediate reversion	• Average parameters determined based on internal and external historical data • Modeled parameters using long-run economic conditions for retail small balance obligors
Commercial real estate (CRE)	• CRE Price Index, unemployment rates, GDP, corporate bond yield and interest rates	• Immediate reversion	• Average parameters determined based on internal and external historical data
Consumer			
Home equity / Residential real estate	• Unemployment rates, HPI and interest rates	• Straight-line over 3 years	• Modeled parameters using long-run economic conditions
Automobile	• Unemployment rates, HPI, disposable personal income and Manheim used car index	• Straight-line over 1 year	• Average parameters determined based on internal historical data
Credit card	• Unemployment rates, personal consumption expenditure and HPI	• Straight-line over 2 years	• Modeled parameters using long-run economic conditions
Education / Other consumer	• Modeled using either discrete risk parameters or analytical approaches based on net charge-offs and paydown rates		

After the forecast period, we revert to the long-run average over the reversion period noted above, which is the period between the end of the forecast period and when losses are estimated to have completely reverted to the long-run average.

Once we have developed a combined estimate of credit losses (*i.e.*, for the forecast period, reversion period and long-run average) under each of the forecasted scenarios, we produce a probability-weighted credit loss estimate. In addition, we add or deduct any qualitative components and other adjustments, such as individually assessed loans, to produce the ALLL. See the Individually Assessed Component and Qualitative Component discussions that follow in this Note 1 for additional information about those adjustments.

Discounted Cash Flow

Prior to January 1, 2023, we used a discounted cash flow methodology for our home equity and residential real estate loan classes, in addition to our TDR portfolios. We determined effective interest rates considering contractual cash flows adjusted for estimated prepayments. Changes in the ALLL due to the impact of the passage of time under the discounted cash flow estimate were recognized through the provision for credit losses.

Effective January 1, 2023, we discontinued our use of a discounted cash flow methodology, and we now use a pooled expected loss methodology based upon the quantification of risk parameters, such as PD, LGD and EAD for a loan or loan segment.

Individually Assessed Component

Loans and leases that do not share similar risk characteristics with a pool of loans are individually assessed as follows:

- For commercial nonperforming loans greater than or equal to a defined dollar threshold, reserves are based on an analysis of the present value of the loan's expected future cash flows or the fair value of the collateral, if appropriate under our policy for collateral dependent loans. Nonperforming commercial loans below the defined threshold are reserved for under a pooled basis, as we believe these loans continue to share similar risk characteristics.
- For consumer nonperforming loans classified as collateral dependent, charge-off and ALLL related to recovery of amounts previously charged off are evaluated through an analysis of the fair value of the collateral less costs to sell.

Qualitative Component

While our reserve models and methodologies strive to reflect all relevant expected credit risk factors, the ACL also accounts for factors that may not be directly measured in the determination of individually assessed or pooled reserves. Such qualitative factors may include, but are not limited to:

- Industry concentrations and conditions,
- Changes in market conditions, including regulatory and legal requirements,

- Changes in the nature and volume of our portfolio,
- Recent credit quality trends,
- Recent loss experience in particular portfolios, including specific and unique events,
- Recent macroeconomic factors that may not be reflected in the forecast information,
- Limitations of available input data, including historical loss information and recent data such as collateral values,
- Model imprecision and limitations,
- Changes in lending policies and procedures, including changes in loss recognition and mitigation policies and procedures, and
- Timing of available information.

See Note 3 Loans and Related Allowance for Credit Losses for additional information about our loan portfolio and the related allowance.

Accrued Interest
When accrued interest is reversed or charged-off in a timely manner, the CECL standard provides a practical expedient to exclude accrued interest from ACL measurement. We consider our nonaccrual and charge-off policies to be timely for all of our investment securities, loans and leases, with the exception of consumer credit cards, education loans and certain unsecured consumer lines of credit. We consider the length of time before nonaccrual/charge-off and the use of appropriate other triggering events for nonaccrual and charge-offs in making this determination. Pursuant to these policy elections, we calculate reserves for accrued interest on credit cards, education loans and certain unsecured consumer lines of credit, which are then included within the ALLL. See the Debt Securities and the Nonperforming Loans and Leases sections of this Note 1 for additional information on our nonaccrual and charge-off policies.

Pursuant to our use of a discounted cash flow methodology in estimating credit losses for our home equity and residential real estate loan classes prior to January 1, 2023, applicable reserves for accrued interest were also included within the ALLL for these loan classes.

Purchased Credit Deteriorated Loans or Securities
The allowance for PCD loans or securities is determined at the time of acquisition, as the estimated expected credit loss of the outstanding balance or par value, based on the methodologies described previously for loans and securities. In accordance with CECL, the allowance recognized at acquisition is added to the acquisition date purchase price to determine the asset's amortized cost basis.

Allowance for Unfunded Lending Related Commitments
We maintain the allowance for unfunded lending related commitments on off-balance sheet credit exposures that are not unconditionally cancelable (*e.g.*, unfunded loan commitments, letters of credit and certain financial guarantees), at a level we believe is appropriate as of the balance sheet date to absorb expected credit losses on these exposures. Other than the estimation of the probability of funding, this reserve is estimated in a manner similar to the methodology used for determining reserves for pooled loans and leases. See the Allowance for Loan and Lease Losses section of this Note 1 for the key credit risk characteristics for unfunded lending related commitments. The allowance for unfunded lending related commitments is recorded as a liability on the Consolidated Balance Sheet. Net adjustments to this reserve are included in the Provision for credit losses on the Consolidated Income Statement.

See Note 3 Loans and Related Allowance for Credit Losses for additional information about this allowance.

Allowance for Other Financial Assets
We determine the allowance for other financial assets (*e.g.*, trade receivables, servicing advances on PNC-owned loans and balances with banks) considering historical loss information and other available indicators. In certain cases where there are no historical, current or forecast indicators of an expected credit loss, we may estimate the reserve to be close to zero. As of December 31, 2023 and December 31, 2022 the allowance for other financial assets was immaterial.

Loans Held for Sale

We designate loans as held for sale when we have the intent and ability to sell them. At the time of designation to held for sale, any ACL is reversed, and a valuation allowance for the shortfall between the amortized cost basis and the net realizable value is recognized, excluding the amounts already charged off. Similarly, when loans are no longer considered held for sale, the valuation allowance (net of writedowns) is reversed, and an allowance for credit losses is established, excluding the amounts already charged-off. Write-downs on loans held for sale (if required) are recorded as charge-offs through the valuation allowance. Adjustments to the valuation allowance on held for sale loans are recognized in Other noninterest income.

We have elected to account for certain commercial and residential mortgage loans held for sale at fair value. The changes in the fair value of commercial and residential mortgage loans are measured and recorded within Residential and Commercial mortgage within noninterest income each period. See Note 14 Fair Value for additional information.

Interest income with respect to loans held for sale is accrued based on the principal amount outstanding and the loan's contractual interest rate.

In certain circumstances, loans designated as held for sale may be transferred to held for investment based on a change in strategy. We transfer these loans at the lower of cost or estimated fair value; however, any loans originated or purchased for the held for sale portfolio and for which the fair value option has been elected remain at fair value for the life of the loan.

Loan Sales, Loan Securitizations and Retained Interests

We recognize the sale of loans or other financial assets when the transferred assets are legally isolated from our creditors and the appropriate accounting criteria are met. We have sold mortgage and other loans through securitization transactions. In a securitization, financial assets are transferred into trusts or to SPEs in transactions to effectively legally isolate the assets from us.

In a securitization, the trust or SPE issues beneficial interests in the form of senior and subordinated securities backed or collateralized by the assets sold to the trust. The senior classes of the asset-backed securities typically receive investment grade credit ratings at the time of issuance. These ratings are generally achieved through the creation of lower-rated subordinated classes of asset-backed securities, as well as subordinated or residual interests. In certain cases, we may retain a portion or all of the securities issued, interest-only strips, one or more subordinated tranches, servicing rights and, in some cases, cash reserve accounts. If sale accounting is achieved, securitized loans are removed from the balance sheet and a net gain or loss is recognized in Noninterest income at the time of initial sale. Gains or losses recognized on the sale of the loans depend on the fair value of the loans sold and the retained interests at the date of sale. We generally estimate the fair value of the retained interests based on the present value of future expected cash flows using assumptions as to discount rates, interest rates, prepayment speeds, credit losses and servicing costs, if applicable.

With the exception of loan sales to certain U.S. government-chartered entities, our loan sales and securitizations are generally structured without recourse to us except for representations and warranties and with no restrictions on the retained interests. We originate, sell and service commercial mortgage loans under the FNMA DUS program. Under the provisions of the DUS program, we participate in a loss-sharing arrangement with FNMA. When we are obligated for loss-sharing or recourse, our policy is to record such liabilities initially at fair value and subsequently reserve for estimated losses in accordance with guidance contained in applicable GAAP.

Variable Interest Entities

A VIE is a corporation, partnership, limited liability company, or any other legal structure used to conduct activities or hold assets generally that either:

- Does not have equity investors with voting rights that can directly or indirectly make decisions about the entity's most significant economic activities through those voting rights or similar rights, or
- Has equity investors that do not provide sufficient equity for the entity to finance its activities without additional subordinated financial support.

A VIE often holds financial assets, including loans or receivables, real estate or other property.

VIEs are assessed for consolidation under ASC 810 – *Consolidation* when we hold a variable interest in these entities. We consolidate a VIE if we are its primary beneficiary. The primary beneficiary of a VIE is determined to be the party that meets both of the following criteria: (i) has the power to make decisions that most significantly affect the economic performance of the VIE; and (ii) has the obligation to absorb losses or the right to receive benefits that in either case could potentially be significant to the VIE. Upon consolidation of a VIE, we recognize all of the VIE's assets, liabilities and noncontrolling interests on our Consolidated Balance Sheet. On a quarterly basis, we determine whether any changes occurred requiring a reassessment of whether we are the primary beneficiary of an entity.

See Note 4 Loan Sale and Servicing Activities and Variable Interest Entities for information about VIEs that we consolidate as well as those that we do not consolidate but in which we hold a significant variable interest.

Mortgage Servicing Rights

We provide servicing under various loan servicing contracts for commercial and residential loans. These contracts are either purchased in the open market or retained as part of a loan securitization or loan sale. All acquired or originated servicing rights are initially measured at fair value. Fair value is based on the present value of the expected future net cash flows, including assumptions as to:

- Deposit balances and interest rates for escrow and commercial reserve earnings,
- Discount rates,
- Estimated prepayment speeds, and
- Estimated servicing costs.

We've elected to subsequently measure commercial and residential MSRs at fair value. We manage the risk of changes in fair value of MSRs by hedging the fair value with derivatives and securities which are expected to offset the change in fair value of the servicing rights. Changes in the fair value of MSRs are recognized as gains/(losses). The fair value of these servicing rights is estimated by using a discounted cash flow valuation model which calculates the present value of estimated future net servicing cash flows, taking into consideration actual and expected mortgage loan prepayment rates, discount rates, servicing costs and other factors which are determined based on current market conditions.

See Note 5 Goodwill and Mortgage Servicing Rights and Note 14 Fair Value for additional information.

Goodwill

Goodwill arising from business acquisitions represents the value attributable to unidentifiable intangible elements in the business acquired. Goodwill is assigned at the reporting unit level on the acquisition date. A reporting unit is a business segment or one level below a business segment. At least annually, in the fourth quarter, management performs the goodwill impairment test at a reporting unit level. The goodwill impairment test may also be performed more frequently if events occur or circumstances have changed significantly from the annual test date, when such events or circumstances may indicate that it is more-likely-than-not that the fair value of a reporting unit is below its carrying value. Examples of events or circumstances that are considered for more frequent goodwill impairment testing include, but are not limited to, changes in macroeconomic conditions, industry and market considerations, and other relevant PNC or reporting unit specific events.

When performing a goodwill impairment test, PNC may first perform a qualitative analysis to evaluate whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. If, after considering all relevant events and circumstances, PNC determines it is not more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then performing a quantitative impairment test is not necessary. If PNC elects to bypass the qualitative analysis, or concludes via qualitative analysis that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, a quantitative goodwill impairment test is performed. Inputs are generated and used in calculating the fair value of the reporting unit, which is compared to its carrying amount. The fair value of our reporting units is determined by using discounted cash flows and/or market comparability methodologies. If the fair value is greater than the carrying amount, then the reporting unit's goodwill is deemed not to be impaired. If the fair value is less than the carrying amount, an entity should recognize an impairment charge for the amount by which the carrying amount of goodwill exceeds the reporting unit's fair value. The loss recognized should not exceed the total amount of goodwill allocated to that reporting unit and subsequent reversals of goodwill impairment are not permitted.

See Note 5 Goodwill and Mortgage Servicing Rights for additional information.

Leases

Lessor Arrangements

We provide financing for various types of equipment, including aircraft, energy and power systems and vehicles through a variety of lease arrangements. Finance leases are carried at the aggregate of lease payments plus estimated residual value of the leased equipment, less unearned income. Leveraged leases, a form of financing leases, are carried net of nonrecourse debt. We recognize income over the term of the lease using the constant effective yield method. Lease residual values are reviewed for impairment at least annually. Gains or losses on the sale of leased assets are included in Other noninterest income. Valuation adjustments on operating lease residuals are included in Other noninterest expense while valuation adjustments on the net investment of a direct financing or sales-type lease are included in Provision for credit losses.

Lessee Arrangements

We lease retail branches, datacenters, office space, land and equipment under operating and finance leases. Under ASC 842, we elected the practical expedient to account for the lease and nonlease components of real estate leases and leases of advertising assets, such as signage, as a single lease component. For other leased asset classes, lease and nonlease components of new lease agreements are accounted for separately. In addition, we elected the practical expedient to not apply the recognition requirements under the standard to short-term leases. Leases with an initial term of 12 months or less are not recorded on the balance sheet, as we recognize lease expense for these leases on a straight-line basis over the lease term. Generally, we have elected to use the Overnight Indexed Swap rate corresponding to the term of the lease at the lease measurement date as our incremental borrowing rate to measure the right-of-use-asset and lease liability.

See Note 6 Leases for additional information on our leasing arrangements.

Depreciation and Amortization

For financial reporting purposes, we depreciate premises and equipment, net of salvage value, principally using the straight-line method over their estimated useful lives.

We use estimated useful lives for furniture and equipment ranging from one to 10 years and depreciate buildings over an estimated useful life of up to 40 years. We amortize leasehold improvements over their estimated useful lives of up to 15 years or the respective lease terms, whichever is shorter.

We purchase, as well as internally develop and customize, certain software to enhance or perform internal business functions. Software development costs incurred in the planning and post-development project stages are charged to Noninterest expense. Costs associated with designing software configuration and interfaces, installation, coding programs and testing systems are capitalized and amortized using the straight-line method over periods generally ranging from one to 10 years. Implementation costs of software hosting arrangements are capitalized and amortized over the contractual term of the associated arrangement, including extension options we are reasonably certain to exercise, on a straight-line basis.

We review the remaining useful lives and carrying values of premises and equipment to determine whether an event has occurred that would indicate a change in useful life is warranted or if any impairment exists.

Other Comprehensive Income

Other comprehensive income, on an after-tax basis, primarily consists of unrealized gains or losses on available for sale debt securities, unrealized gains or losses on derivatives designated as cash flow hedges, and changes in plan assets and benefit obligations of pension and other postretirement benefit plans. Details of each component are included in Note 12 Other Comprehensive Income.

Treasury Stock

We record common stock purchased for treasury at cost. At the date of subsequent reissue, the treasury stock account is reduced by the cost of such stock on the first-in, first-out basis.

Earnings Per Common Share

Basic earnings per common share is calculated using the two-class method to determine income attributable to common shareholders. Unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents are considered participating securities under the two-class method. Distributed dividends and dividend equivalents related to participating securities and an allocation of undistributed net income to participating securities reduce the amount of income attributable to common shareholders. In a period with a loss, no allocation will be made to the participating securities, as they do not have a contractual obligation to absorb losses. Income attributable to common shareholders is then divided by the weighted-average common shares outstanding for the period.

Diluted earnings per common share is calculated under the more dilutive of either the treasury stock method or the two-class method. For the diluted calculation, we increase the weighted-average number of shares of common stock outstanding by the assumed conversion of outstanding convertible preferred stock from the beginning of the year or date of issuance, if later, and the number of shares of common stock that would be issued assuming the exercise of stock options and warrants and the issuance of incentive shares using the treasury stock method. These adjustments to the weighted-average number of shares of common stock outstanding are made only when such adjustments will dilute earnings per common share. For periods in which there is a loss from continuing operations, any potential dilutive shares will be anti-dilutive. In this scenario, no potential dilutive shares will be included in the continuing operations, discontinued operations or total earnings per common share calculations, even if overall net income is reported.

See Note 13 Earnings Per Share for additional information.

Fair Value of Financial Instruments

The fair value of financial instruments and the methods and assumptions used in estimating fair value amounts and financial assets and liabilities for which fair value was elected are detailed in Note 14 Fair Value.

Derivative Instruments and Hedging Activities

We use a variety of financial derivatives to both mitigate exposure to market (primarily interest rate) and credit risks inherent in our business activities, as well as to facilitate customer risk management activities. We manage these risks as part of our asset and liability management process and through credit policies and procedures.

We recognize all derivative instruments at fair value as either Other assets or Other liabilities on the Consolidated Balance Sheet and the related cash flows in the Operating Activities section of the Consolidated Statement of Cash Flows. Adjustments for counterparty credit risk are included in the determination of fair value. The accounting for changes in the fair value of a derivative instrument depends on whether it has been designated and qualifies as part of a cash flow or net investment hedging relationship. For all other derivatives, changes in fair value are recognized in earnings.

We utilize a net presentation for derivative instruments on the Consolidated Balance Sheet taking into consideration the effects of legally enforceable master netting agreements. Cash collateral exchanged with counterparties is also netted against the applicable derivative exposures by offsetting obligations to return, or general rights to reclaim, cash collateral against the fair values of the net derivatives being collateralized.

For those derivative instruments that are designated and qualify as accounting hedges, we designate the hedging instrument, based on the exposure being hedged, as a fair value hedge, a cash flow hedge or a hedge of the net investment in a foreign operation.

We formally document the relationship between the hedging instruments and hedged items, as well as the risk management objective and strategy, before undertaking an accounting hedge. To qualify for hedge accounting, the derivatives and related hedged items must be designated as a hedge at inception of the hedge relationship. In addition, a derivative must be highly effective at reducing the risk associated with the exposure being hedged. For accounting hedge relationships, we formally assess, both at the inception of the hedge and on an ongoing basis, if the derivatives are highly effective in offsetting designated changes in the fair value or cash flows of the hedged item. If it is determined that the derivative instrument is not highly effective, hedge accounting is discontinued. We assess effectiveness using statistical regression analysis. Where the critical terms of the derivative and hedged item match, effectiveness may be assessed qualitatively.

For derivatives that are designated as fair value hedges (*i.e*., hedging the exposure to changes in the fair value of an asset or a liability attributable to a particular risk, such as changes in benchmark interest rates), changes in the fair value of the hedging instrument are recognized in earnings and offset by also recognizing in earnings the changes in the fair value of the hedged item attributable to the hedged risk. To the extent the change in fair value of the derivative does not offset the change in fair value of the hedged item, the difference is reflected in the Consolidated Income Statement in the same income statement line as the hedged item.

For derivatives designated as cash flow hedges (*i.e*., hedging the exposure to variability in expected future cash flows), the gain or loss on derivatives is reported as a component of AOCI and subsequently reclassified to income in the same period or periods during which the hedged cash flows affect earnings and recorded in the same income statement line item as the hedged cash flows. For derivatives designated as a hedge of net investment in a foreign operation, the gain or loss on the derivatives is reported as a component of AOCI.

We discontinue hedge accounting when it is determined that the derivative no longer qualifies as an effective hedge; the derivative expires or is sold, terminated or exercised; or the derivative is de-designated as a fair value or cash flow hedge or, for a cash flow hedge, it is no longer probable that the forecasted transaction will occur by the end of the originally specified time period.

We purchase or originate financial instruments that contain an embedded derivative. For financial instruments not measured at fair value with changes in fair value reported in earnings, we assess, at inception of the transaction, if the economic characteristics of the embedded derivative are clearly and closely related to the economic characteristics of the host contract, and whether a separate instrument with the same terms as the embedded derivative would be a derivative. If the embedded derivative is not clearly and closely related to the host contract and meets the definition of a derivative, the embedded derivative is recorded separately from the host contract with changes in fair value recorded in earnings, unless we elect to account for the hybrid instrument at fair value.

We enter into commitments to originate residential and commercial mortgage loans for sale. We also enter into commitments to purchase or sell commercial and residential real estate loans. These commitments are accounted for as free-standing derivatives which are recorded at fair value in Other assets or Other liabilities on the Consolidated Balance Sheet. Any gain or loss from the change in fair value after the inception of the commitment is recognized in Noninterest income.

See Note 15 Financial Derivatives for additional information.

<u>Income Taxes</u>

We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that we expect will apply at the time when we believe the differences will reverse. Changes in tax rates and tax law are accounted for in the period of enactment. Thus, at the enactment date, deferred taxes are remeasured and the change is recognized in Income tax expense. The recognition of deferred tax assets requires an assessment to determine the realization of such assets. Realization refers to the incremental benefit achieved through the reduction in future taxes payable or refunds receivable from the deferred tax assets, assuming that the underlying deductible differences and carryforwards are the last items to enter into the determination of future taxable income. We establish a valuation allowance for tax assets when it is more likely than not that they will not be realized, based upon all available positive and negative evidence.

We have elected to apply the proportional amortization method to our qualifying LIHTC and NMTC equity investments. Investment tax credits and investment impairment are recognized in tax expense for any individual LIHTC and NMTC equity investment for which we can demonstrate that the investment was made primarily for the purpose of receiving income tax credits and other income tax benefits. We use the deferral method of accounting for all investment tax credit equity investments. Under this method, the investment tax credits are recognized as a reduction to the related asset.

See Note 18 Income Taxes for additional information.

Revenue Recognition

We earn interest and noninterest income from various sources, including:

- Lending,
- Securities portfolio,
- Asset management,
- Loan sales, loan securitizations and servicing,
- Brokerage services,
- Sale of loans and securities,
- Certain private equity activities, and
- Securities, derivatives and foreign exchange activities.

In addition, we earn fees and commissions from:

- Issuing loan commitments, standby letters of credit and financial guarantees,
- Deposit account services,
- Merchant services,
- Selling various insurance products,
- Providing treasury management services including money transfer services,
- Providing merger and acquisition advisory and related services,
- Debit and credit card transactions, and
- Facilitating and participating in certain capital markets transactions.

Service charges on deposit accounts are recognized when earned. Brokerage fees and gains and losses on the sale of securities and certain derivatives are recognized on a trade-date basis.

We record private equity income or loss based on changes in the valuation of the underlying investments or when we dispose of our interest.

We recognize gain/(loss) on changes in the fair value of certain financial instruments where we have elected the fair value option. These financial instruments include certain commercial and residential mortgage loans originated for sale, certain residential mortgage portfolio loans and resale agreements. We also recognize gain/(loss) on changes in the fair value of residential and commercial MSRs.

We recognize revenue from servicing residential and commercial mortgages for others as earned based on the specific contractual terms. These revenues are reported on the Consolidated Income Statement in the line item Residential and commercial mortgage. We recognize revenue from securities, derivatives and foreign exchange customer-related trading, as well as securities underwriting activities, as these transactions occur or as services are provided. We generally recognize gains from the sale of loans upon meeting the derecognition criteria for transfers of financial assets. Mortgage revenue recognized is reported net of mortgage repurchase reserves.

For the fee-based revenue within the scope of ASC Topic 606 - *Revenue from Contracts with Customers*, revenue is recognized when or as those services are transferred to the customer. See Note 23 Fee-based Revenue from Contracts with Customers for additional information related to revenue within the scope of ASC Topic 606.

Recently Adopted Accounting Standards

Accounting Standards Update	Description	Financial Statement Impact
Reference Rate Reform - ASU 2020-04 Issued March 2020 **Reference Rate Reform Scope - ASU 2021-01** Issued January 2021 **Reference Rate Reform Deferral of Sunset Date – ASU 2022-06** Issued December 2022	• Provides optional expedients and exceptions for applying generally accepted accounting principles to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform (codified in ASC 848). • Includes optional expedients related to contract modifications that allow an entity to account for modifications (if certain criteria are met) as if the modifications were only minor (assets within the scope of ASC 310, Receivables), were not substantial (assets within the scope of ASC 470, Debt) and/or did not result in remeasurements or reclassifications (assets within the scope of ASC 842, Leases, and other Topics) of the existing contract. • Includes optional expedients related to hedging relationships within the scope of ASC 815, Derivatives & Hedging, whereby changes to the critical terms of a hedging relationship do not require dedesignation if certain criteria are met. In addition, potential sources of ineffectiveness as a result of reference rate reform may be disregarded when performing some effectiveness assessments. • Includes optional expedients and exceptions for contract modifications and hedge accounting that apply to derivative instruments impacted by the market-wide discounting transition. • Guidance in these ASUs is effective as of March 12, 2020 through December 31, 2024.	• ASU 2020-04 was adopted March 12, 2020. ASU 2021-01 was retrospectively adopted October 1, 2020. ASU 2022-06 was adopted upon issuance. • During the fourth quarter of 2020, we elected to apply certain optional expedients for contract modifications and hedging relationships to derivative instruments impacted by the market-wide discounting transition. These optional expedients remove the requirement to remeasure contract modifications or dedesignate hedging relationships due to reference rate reform. The elections made in the fourth quarter of 2020 apply only to derivative instruments impacted by the market-wide discounting transition, not all derivative instruments. • During the first quarter of 2021, we elected to apply certain optional expedients to derivative instruments that were modified in the first quarter due to the adoption of fallback language recommended by the ISDA to address the anticipated cessation of LIBOR. These optional expedients remove the requirement to remeasure contract modifications or dedesignate hedging relationships due to reference rate reform. We applied these optional expedients consistently to all eligible LIBOR cessation-related contract modifications and hedging relationships since election. • During the fourth quarter of 2021, we elected to apply certain optional expedients for contract modifications to receivables modified in the fourth quarter due to the cessation of 1-week and 2-month USD LIBOR tenors and non-USD Interbank Offered Rates. These optional expedients remove the requirement to assess whether the contract modification was more-than-minor in accordance with ASC 310. We also elected to apply certain optional expedients related to assessing hedge effectiveness to our cash flow hedge relationships affected by reference rate reform. We applied these optional expedients consistently to all eligible LIBOR cessation-related contract modifications and hedging relationships since election. • During the second quarter of 2023, we elected and applied certain optional expedients for contract modifications and hedging relationships impacted by the central clearing counterparties conversion processes for LIBOR-indexed derivative instruments. These optional expedients remove the requirement to remeasure contract modifications or dedesignate hedging relationships due to reference rate reform. The elections made apply only to derivatives instruments impacted by the central clearinghouse conversion process. • During the second quarter of 2023, we applied certain optional expedients for investment security, debt and preferred stock instrument contract modifications impacted by LIBOR cessation. These optional expedients remove the requirement to remeasure contract modifications. • We may elect additional optional expedients for contract modifications and hedge relationships affected by reference rate reform through the effective date of this guidance.

Accounting Standards Update	Description	Financial Statement Impact
Troubled Debt Restructurings and Vintage Disclosures - ASU 2022-02 Issued March 2022	• Eliminates the accounting guidance for TDRs and requires an entity to apply the loan refinancing and restructuring guidance to determine whether a modification results in a new loan or a continuation of an existing loan. • Eliminates the requirement to use a discounted cash flow approach to measure the allowance for credit losses for TDRs. • Enhances disclosure requirements for certain loan refinancings and restructurings by creditors when a borrower is experiencing financial difficulty. • Requires disclosure of current-period gross charge-offs by year of origination for financing receivables and net investments in leases within the scope of CECL.	• Adopted January 1, 2023 using a modified retrospective transition approach for the amendments related to the recognition and measurement of TDRs. • The impact of adoption resulted in a decrease to the beginning period ALLL of $35 million, resulting in an increase to retained earnings of $26 million, net of tax, as of January 1, 2023. • The presentation of our loan modification disclosures have been updated to reflect information on loan modifications given to borrowers experiencing financial difficulty and can be found within Note 3 Loans and Related Allowance for Credit Losses. TDR disclosures are presented for comparative periods only and are not required to be updated in current periods. Additionally, our vintage disclosure has been updated to reflect gross charge-offs by year of origination.

Accounting Standards Update	Description	Financial Statement Impact
Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method – ASU 2023-02 Issued March 2023	• Permits reporting entities to elect to account for their tax equity investments, regardless of the tax credit program from which the income tax credits are received, using the proportional amortization method if certain conditions are met. • A reporting entity makes an accounting policy election to apply the proportional amortization method on a tax-credit-program-by-tax-credit-program basis rather than electing to apply the proportional amortization method at the reporting entity level or to individual investments.	• Early adopted September 30, 2023, using a modified retrospective transition approach for the amendments related to our tax credit programs that are eligible to apply proportional amortization. The cumulative effect to retained earnings as of January 1, 2023 was immaterial. • At adoption, we elected to apply the proportional amortization method to all qualifying investments in the NMTC program. PNC historically applied proportional amortization to LIHTC investments since applying ASU 2014-01. • See Note 4 Loan Sale and Servicing Activities and Variable Interest Entities for the impact of adoption.

NOTE 2 INVESTMENT SECURITIES

The following table summarizes our available for sale and held to maturity portfolios by major security type:

Table 35: Investment Securities Summary (a)(b)

	December 31, 2023				December 31, 2022			
		Unrealized				Unrealized		
In millions	Amortized Cost (c)	Gains	Losses	Fair Value	Amortized Cost (c)	Gains	Losses	Fair Value
Securities Available for Sale								
U.S. Treasury and government agencies	$ 7,596	$ 22	$ (667)	$ 6,951	$ 9,196	$ 10	$ (836)	$ 8,370
Residential mortgage-backed								
Agency	30,643	46	(2,809)	27,880	32,114	13	(3,304)	28,823
Non-agency	585	118	(7)	696	697	131	(9)	819
Commercial mortgage-backed								
Agency	1,680	1	(135)	1,546	1,845		(170)	1,675
Non-agency	913	1	(45)	869	1,325		(69)	1,256
Asset-backed	1,092	25	(1)	1,116	103	27	(1)	129
Other	2,844	44	(161)	2,727	3,288	44	(245)	3,087
Total securities available for sale	$ 45,353	$ 257	$ (3,825)	$ 41,785	$ 48,568	$ 225	$ (4,634)	$ 44,159
Securities Held to Maturity								
U.S. Treasury and government agencies	$ 36,529	$ 9	$ (1,141)	$ 35,397	$ 36,571	$ 6	$ (1,617)	$ 34,960
Residential mortgage-backed								
Agency	42,686	92	(2,733)	40,045	45,271	74	(3,095)	42,250
Non-agency	259		(17)	242	276		(21)	255
Commercial mortgage-backed								
Agency	939	9	(23)	925	848	4	(26)	826
Non-agency	1,373	2	(27)	1,348	1,667		(40)	1,627
Asset-backed	5,890	17	(39)	5,868	7,188	6	(140)	7,054
Other	3,108	50	(35)	3,123	3,354	25	(72)	3,307
Total securities held to maturity (d)	$ 90,784	$ 179	$ (4,015)	$ 86,948	$ 95,175	$ 115	$ (5,011)	$ 90,279

(a) At December 31, 2023, the accrued interest associated with our held to maturity and available for sale portfolios totaled $281 million and $144 million, respectively. The comparable amounts at December 31, 2022 were $282 million and $144 million, respectively. These amounts are included in Other assets on the Consolidated Balance Sheet.
(b) Credit ratings represent a primary credit quality indicator used to monitor and manage credit risk. Of our total securities portfolio, 97% were rated AAA/AA at both December 31, 2023 and 2022.
(c) Amortized cost is presented net of allowance of $86 million for securities available for sale, primarily related to non-agency commercial mortgage-backed securities and $6 million for securities held to maturity at December 31, 2023. The comparable amounts at December 31, 2022 were $142 million and $7 million, respectively.
(d) Held to maturity securities transferred from available for sale are included in held to maturity at fair value at the time of the transfer. The amortized cost of held to maturity securities included net unrealized losses of $4.2 billion at December 31, 2023, related to securities transferred, which are offset in AOCI, net of tax. The comparable amount at December 31, 2022 was $5.1 billion.

The fair value of investment securities is impacted by interest rates, credit spreads, market volatility and liquidity conditions. Securities available for sale are carried at fair value with net unrealized gains and losses included in Total shareholders' equity as AOCI, unless credit-related. Net unrealized gains and losses are determined by taking the difference between the fair value of a security and its amortized cost, net of any allowance. Securities held to maturity are carried at amortized cost, net of any allowance. Investment securities at December 31, 2023 included less than $0.1 billion of net unsettled purchases that represent non-cash investing activity, and accordingly, are not reflected on the Consolidated Statement of Cash Flows. The comparable amount for December 31, 2022 was $0.2 billion.

During 2022, we transferred securities with a fair value of $82.7 billion from available for sale to held to maturity. The securities transferred included $34.0 billion of U.S. Treasury and government agency securities, $39.0 billion of agency residential mortgage-backed securities, $6.3 billion of asset-backed securities and $3.4 billion of various other security types. The securities were reclassified at fair value at the time of the transfer and the transfers represented non-cash transactions. There were no securities transferred during 2023.

We maintain the allowance for investment securities at levels that we believe to be appropriate as of the balance sheet date to absorb expected credit losses on our portfolio. As of December 31, 2023, the allowance for investment securities was $92 million and primarily related to non-agency commercial mortgage-backed securities in the available for sale portfolio. The comparable amount at December 31, 2022 was $149 million. See Note 1 Accounting Policies for a discussion of the methodologies used to determine the allowance for investment securities.

At December 31, 2023, AOCI included pretax losses of $293 million from derivatives that hedged the purchase of investment securities classified as held to maturity. The losses will be accreted to interest income as an adjustment of yield on the securities.

The secret drink is "milk".

Table 36 presents the gross unrealized losses and fair value of securities available for sale that do not have an associated allowance for investment securities at December 31, 2023 and 2022. These securities are segregated between investments that had been in a continuous unrealized loss position for less than twelve months and twelve months or more, based on the point in time that the fair value declined below the amortized cost basis. All securities included in the table have been evaluated to determine if a credit loss exists. As part of that assessment, as of December 31, 2023, we concluded that we do not intend to sell and believe we will not be required to sell these securities prior to recovery of the amortized cost basis.

Table 36: Gross Unrealized Loss and Fair Value of Securities Available for Sale Without an Allowance for Credit Losses

	Unrealized loss position less than 12 months		Unrealized loss position 12 months or more		Total	
In millions	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value
December 31, 2023						
U.S. Treasury and government agencies			$ (666)	$ 6,035	$ (666)	$ 6,035
Residential mortgage-backed						
Agency	$ (4)	$ 1,015	(2,805)	24,306	(2,809)	25,321
Non-agency	(1)	15	(4)	84	(5)	99
Commercial mortgage-backed						
Agency			(135)	1,495	(135)	1,495
Non-agency			(45)	731	(45)	731
Asset-backed			(1)	9	(1)	9
Other	(3)	78	(136)	2,106	(139)	2,184
Total securities available for sale	$ (8)	$ 1,108	$ (3,792)	$ 34,766	$ (3,800)	$ 35,874
December 31, 2022						
U.S. Treasury and government agencies	$ (601)	$ 5,868	$ (235)	$ 2,208	$ (836)	$ 8,076
Residential mortgage-backed						
Agency	(1,744)	19,036	(1,560)	8,971	(3,304)	28,007
Non-agency	(6)	112	(2)	17	(8)	129
Commercial mortgage-backed						
Agency	(125)	1,283	(45)	372	(170)	1,655
Non-agency	(44)	750	(18)	394	(62)	1,144
Asset-backed			(1)	5	(1)	5
Other	(96)	1,418	(112)	1,144	(208)	2,562
Total securities available for sale	$ (2,616)	$ 28,467	$ (1,973)	$ 13,111	$ (4,589)	$ 41,578

Information related to gross realized securities gains and losses from the sales of securities is set forth in the following table:

Table 37: Gains (Losses) on Sales of Securities Available for Sale

Year ended December 31 In millions	Gross Gains	Gross Losses	Net Gains (Losses)	Tax Expense (Benefit)
2023		$ (2)	$ (2)	
2022	$ 11	$ (18)	$ (7)	$ (1)
2021	$ 360	$ (296)	$ 64	$ 13

The following table presents, by remaining contractual maturity, the amortized cost, fair value and weighted-average yield of debt securities at December 31, 2023:

Table 38: Contractual Maturity of Debt Securities

Dollars in millions	1 Year or Less	After 1 Year through 5 Years	After 5 Years through 10 Years	After 10 Years	Total
Securities Available for Sale					
U.S. Treasury and government agencies	$ 2,055	$ 2,968	$ 461	$ 2,112	$ 7,596
Residential mortgage-backed					
Agency	1	210	3,766	26,666	30,643
Non-agency			12	573	585
Commercial mortgage-backed					
Agency	31	576	718	355	1,680
Non-agency	1	106	118	688	913
Asset-backed		273	171	648	1,092
Other	279	2,093	321	151	2,844
Total securities available for sale at amortized cost	$ 2,367	$ 6,226	$ 5,567	$ 31,193	$ 45,353
Fair value	$ 2,309	$ 5,822	$ 5,265	$ 28,389	$ 41,785
Weighted-average yield, GAAP basis (a)	0.99 %	2.32 %	2.94 %	3.12 %	2.88 %
Securities Held to Maturity					
U.S. Treasury and government agencies	$ 8,177	$ 25,744	$ 1,711	$ 897	$ 36,529
Residential mortgage-backed					
Agency		10	329	42,347	42,686
Non-agency				259	259
Commercial mortgage-backed					
Agency		151	518	270	939
Non-agency	29	50		1,294	1,373
Asset-backed	2	1,689	2,269	1,930	5,890
Other	221	1,025	552	1,310	3,108
Total securities held to maturity at amortized cost	$ 8,429	$ 28,669	$ 5,379	$ 48,307	$ 90,784
Fair value	$ 8,299	$ 27,830	$ 5,232	$ 45,587	$ 86,948
Weighted-average yield, GAAP basis (a)	0.85 %	1.55 %	4.20 %	2.92 %	2.37 %

(a) Weighted-average yields are based on amortized cost with effective yields weighted for the contractual maturity of each security. Actual maturities and yields may differ as certain securities may be prepaid.

At December 31, 2023, there were no securities of a single issuer, other than FNMA and FHLMC, that exceeded 10% of total shareholders' equity. The FNMA and FHLMC investments had a total amortized cost of $37.3 billion and $32.1 billion and fair value of $34.6 billion and $30.0 billion, respectively.

The following table presents the fair value of securities that have been either pledged to or accepted from others to collateralize outstanding borrowings:

Table 39: Fair Value of Securities Pledged and Accepted as Collateral

In millions	December 31 2023	December 31 2022
Pledged to others	$ 29,878	$ 24,708
Accepted from others:		
Permitted by contract or custom to sell or repledge	$ 755	$ 1,266
Permitted amount repledged to others	$ 755	$ 1,266

The securities pledged to others include positions held in our portfolio of investment securities, trading securities and securities accepted as collateral from others that we are permitted by contract or custom to sell or repledge, and were used to secure public and trust deposits, repurchase agreements and for other purposes. See Note 15 Financial Derivatives for information related to securities pledged and accepted as collateral for derivatives.

Note 3 Loans And Related Allowance For Credit Losses

Loan Portfolio

Our loan portfolio consists of two portfolio segments – Commercial and Consumer. Each of these segments comprises multiple loan classes. Classes are characterized by similarities in risk attributes and the manner in which we monitor and assess credit risk.

Commercial	Consumer
• Commercial and industrial	• Residential real estate
• Commercial real estate	• Home equity
• Equipment lease financing	• Automobile
	• Credit card
	• Education
	• Other consumer

See Note 1 Accounting Policies for additional information on our loan related policies.

Credit Quality

We closely monitor economic conditions and loan performance trends to manage and evaluate our exposure to credit risk within the loan portfolio based on our defined loan classes. In doing so, we use several credit quality indicators, including trends in delinquency rates, nonperforming status, analysis of PD and LGD ratings, updated credit scores and originated and updated LTV ratios.

We manage credit risk based on the risk profile of the borrower, repayment sources, underlying collateral and other support given current events, economic conditions and expectations. We refine our practices to meet the changing environment, such as inflation levels, industry specific risks, interest rate levels, the level of consumer savings and deposit balances, and structural and secular changes fostered by the pandemic. To mitigate losses and enhance customer support, we offer loan modifications and collection programs to assist our customers.

Table 40 presents the composition and delinquency status of our loan portfolio at December 31, 2023 and December 31, 2022. Loan delinquencies include government insured or guaranteed loans and loans accounted for under the fair value option.

The secret tool is "scissors".

Table 40: Analysis of Loan Portfolio (a) (b) (c)

Dollars in millions	Accruing: Current or Less Than 30 Days Past Due	Accruing: 30-59 Days Past Due	Accruing: 60-89 Days Past Due	Accruing: 90 Days or More Past Due	Total Past Due (d)		Nonperforming Loans	Fair Value Option Nonaccrual Loans (e)	Total Loans (f) (g)
December 31, 2023									
Commercial									
Commercial and industrial	$ 176,796	$ 104	$ 45	$ 76	$ 225		$ 559		$ 177,580
Commercial real estate	34,685	7		9	16		735		35,436
Equipment lease financing	6,480	41	8		49		13		6,542
Total commercial	217,961	152	53	85	290		1,307		219,558
Consumer									
Residential real estate	46,159	282	101	192	575	(d)	294	$ 516	47,544
Home equity	25,533	63	27		90		458	69	26,150
Automobile	14,638	91	20	7	118		104		14,860
Credit card	6,991	54	39	86	179		10		7,180
Education	1,850	27	19	49	95	(d)			1,945
Other consumer	4,227	16	11	10	37		7		4,271
Total consumer	99,398	533	217	344	1,094		873	585	101,950
Total	$ 317,359	$ 685	$ 270	$ 429	$ 1,384		$ 2,180	$ 585	$ 321,508
Percentage of total loans	98.71 %	0.21 %	0.08 %	0.13 %	0.43 %		0.68 %	0.18 %	100.00 %
December 31, 2022									
Commercial									
Commercial and industrial	$ 181,223	$ 169	$ 27	$ 137	$ 333		$ 663		$ 182,219
Commercial real estate	36,104	19	4		23		189		36,316
Equipment lease financing	6,484	20	4		24		6		6,514
Total commercial	223,811	208	35	137	380		858		225,049
Consumer									
Residential real estate	44,306	281	112	199	592	(d)	424	$ 567	45,889
Home equity	25,305	53	20		73		526	79	25,983
Automobile	14,543	106	25	7	138		155		14,836
Credit card	6,906	50	35	70	155		8		7,069
Education	2,058	34	22	59	115	(d)			2,173
Other consumer	4,975	15	12	10	37		14		5,026
Total consumer	98,093	539	226	345	1,110		1,127	646	100,976
Total	$ 321,904	$ 747	$ 261	$ 482	$ 1,490		$ 1,985	$ 646	$ 326,025
Percentage of total loans	98.73 %	0.23 %	0.08 %	0.15 %	0.46 %		0.61 %	0.20 %	100.00 %

(a) Amounts in table represent loans held for investment and do not include any associated ALLL.
(b) The CARES Act credit reporting rules expired in the third quarter of 2023 and, as such, delinquency status at December 31, 2023 is being reported for all loans based on the contractual terms of the loan. Amounts as of December 31, 2022 continue to be presented in accordance with the credit reporting rules under the CARES Act, which required certain loans modified due to pandemic related hardships to not be reported as past due based on the contractual terms of the loan, even when borrowers may not have made payments on their loans during the modification period.
(c) The accrued interest associated with our loan portfolio totaled $1.5 billion and $1.2 billion at December 31, 2023 and 2022, respectively. These amounts are included in Other assets on the Consolidated Balance Sheet.
(d) Past due loan amounts include government insured or guaranteed Residential real estate loans and Education loans totaling $0.3 billion and $0.1 billion at both December 31, 2023 and 2022, respectively.
(e) Consumer loans accounted for under the fair value option for which we do not expect to collect substantially all principal and interest are subject to nonaccrual accounting and classification upon meeting any of our nonaccrual policy criteria. Given that these loans are not accounted for at amortized cost, they have been excluded from the nonperforming loan population.
(f) Includes unearned income, unamortized deferred fees and costs on originated loans and premiums or discounts on purchased loans totaling $1.0 billion and $0.9 billion at December 31, 2023 and 2022, respectively.
(g) Collateral dependent loans totaled $1.4 billion and $1.3 billion at December 31, 2023 and 2022, respectively.

In the normal course of business, we originate or purchase loan products with contractual characteristics that, when concentrated, may increase our exposure as a holder of those loan products. Possible product features that may create a concentration of credit risk would include a high original or updated LTV ratio, terms that may expose the borrower to future increases in repayments above increases in market interest rates and interest-only loans, among others.

We originate interest-only loans to commercial borrowers. Such credit arrangements are usually designed to match borrower cash flow expectations (*e.g.*, working capital lines, revolvers). These products are standard in the financial services industry and product features are considered during the underwriting process to mitigate the increased risk that the interest-only feature may result in borrowers not being able to make interest and principal payments when due. We do not believe that these product features create a concentration of credit risk.

At December 31, 2023, we pledged $51.3 billion of commercial and other loans to the Federal Reserve Bank and $89.5 billion of residential real estate and other loans to the FHLB as collateral for the ability to borrow, if necessary. The comparable amounts at December 31, 2022 were $28.1 billion and $90.4 billion, respectively. Amounts pledged reflect the unpaid principal balances.

Nonperforming Assets
Nonperforming assets include nonperforming loans and leases, OREO and foreclosed assets. Nonperforming loans are those loans accounted for at amortized cost whose credit quality has deteriorated to the extent that full collection of contractual principal and interest is not probable. Interest income is not recognized on these loans. Loans accounted for under the fair value option are reported as performing loans; however, when nonaccrual criteria is met, interest income is not recognized on these loans. Additionally, certain government insured or guaranteed loans for which we expect to collect substantially all principal and interest are not reported as nonperforming loans and continue to accrue interest. See Note 1 Accounting Policies for additional information on our nonperforming loan and lease policies.

The following table presents our nonperforming assets as of December 31, 2023 and 2022:

Table 41: Nonperforming Assets

Dollars in millions	December 31, 2023	December 31, 2022
Nonperforming loans (a)		
Commercial	$ 1,307	$ 858
Consumer (b)	873	1,127
Total nonperforming loans (c)	2,180	1,985
OREO and foreclosed assets	36	34
Total nonperforming assets	$ 2,216	$ 2,019
Nonperforming loans to total loans	0.68 %	0.61 %
Nonperforming assets to total loans, OREO and foreclosed assets	0.69 %	0.62 %
Nonperforming assets to total assets	0.39 %	0.36 %

(a) In connection with the adoption of ASU 2022-02, nonperforming loans as of December 31, 2023 include certain loans where terms were modified as a result of a borrower's financial difficulty. Prior period amounts included nonperforming TDRs, for which accounting guidance was eliminated effective January 1, 2023. See Note 1 Accounting Policies and the Loan Modifications to Borrowers Experiencing Financial Difficulty section of this Note 3 for more information on our adoption of this ASU.
(b) Excludes most unsecured consumer loans and lines of credit, which are charged off after 120 to 180 days past due and are not placed on nonperforming status.
(c) Nonperforming loans for which there is no related ALLL totaled $0.5 billion at December 31, 2023 and primarily include loans with a fair value of collateral that exceeds the amortized cost basis. The comparable amount at December 31, 2022 was $0.7 billion.

Additional Credit Quality Indicators by Loan Class

Commercial and Industrial
For commercial and industrial loans, we monitor the performance of the borrower in a disciplined and regular manner based upon the level of credit risk inherent in the loan. To evaluate the level of credit risk, we assign an internal risk rating reflecting the borrower's PD and LGD. This two-dimensional credit risk rating methodology provides granularity in the risk monitoring process. These ratings are generally reviewed and updated at least once per year. For small balance homogeneous pools of commercial and industrial loans and leases, we apply scoring techniques to assist in determining the PD. The combination of the PD and LGD ratings assigned to commercial and industrial loans, capturing both the combination of expectations of default and loss severity in the event of default, reflects credit quality characteristics as of the reporting date and are used as inputs into our loss forecasting process.

Based upon the amount of the lending arrangement and our risk rating assessment, we follow a formal schedule of written periodic reviews. Quarterly, we conduct formal reviews of a market's or business unit's loan portfolio, focusing on those loans which we perceive to be of higher risk, based upon PDs and LGDs, or loans for which credit quality is weakening. If circumstances warrant, it is our practice to review any customer obligation and its level of credit risk more frequently. We attempt to proactively manage our loans by using various procedures that are customized to the risk of a given loan, including ongoing outreach, contact, and assessment of obligor financial conditions, collateral inspection and appraisal.

Commercial Real Estate

We manage credit risk associated with our commercial real estate projects and commercial mortgages similar to commercial and industrial loans by evaluating PD and LGD. Risks associated with commercial real estate projects and commercial mortgage activities tend to be correlated to the loan structure and collateral location, project progress and business environment. As a result, these attributes are also monitored and utilized in assessing credit risk.

As with the commercial and industrial loan class, a formal schedule of periodic reviews is also performed to assess market/geographic risk and business unit/industry risk. Often as a result of these reviews, more in-depth reviews and increased scrutiny are placed on areas of higher risk, such as adverse changes in risk ratings, deteriorating operating trends, and/or areas that concern management. These reviews are designed to assess risk and facilitate actions to mitigate such risks.

Equipment Lease Financing

We manage credit risk associated with our equipment lease financing loan class similar to commercial and industrial loans by analyzing PD and LGD.

Based upon the dollar amount of the lease and the level of credit risk, we follow a formal schedule of periodic reviews. Generally, this occurs quarterly, although we have established practices to review such credit risk more frequently if circumstances warrant. Our review process entails analysis of the following factors: equipment value/residual value, exposure levels, jurisdiction risk, industry risk, guarantor requirements and regulatory compliance as applicable.

The following table presents credit quality indicators for our commercial loan classes:

Table 42: Commercial Credit Quality Indicators (a)

December 31, 2023 In millions	Term Loans by Origination Year 2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total
Commercial and industrial									
Pass Rated	$ 23,019	$ 26,657	$ 7,562	$ 5,783	$ 4,110	$ 11,982	$ 88,467	$ 573	$ 168,153
Criticized	838	1,781	739	331	281	698	4,708	51	9,427
Total commercial and industrial loans	23,857	28,438	8,301	6,114	4,391	12,680	93,175	624	177,580
Gross charge-offs (b)	25 (c)	32	33	8	3	26	105	12	244
Commercial real estate									
Pass Rated	4,182	8,571	2,986	2,190	4,887	7,411	383		30,610
Criticized	155	1,300	455	490	622	1,753	51		4,826
Total commercial real estate loans	4,337	9,871	3,441	2,680	5,509	9,164	434		35,436
Gross charge-offs (b)				12	31	137			180
Equipment lease financing									
Pass Rated	1,522	1,424	689	690	452	1,378			6,155
Criticized	90	81	81	51	35	49			387
Total equipment lease financing loans	1,612	1,505	770	741	487	1,427			6,542
Gross charge-offs (b)	4	4	4	4	1	1			18
Total commercial loans	$ 29,806	$ 39,814	$ 12,512	$ 9,535	$ 10,387	$ 23,271	$ 93,609	$ 624	$ 219,558
Total commercial gross charge-offs	$ 29	$ 36	$ 37	$ 24	$ 35	$ 164	$ 105	$ 12	$ 442

December 31, 2022 In millions	Term Loans by Origination Year 2022	2021	2020	2019	2018	Prior	Revolving Loans	Revolving Loans Converted to Term	Total Loans
Commercial and industrial									
Pass Rated	$ 41,685	$ 12,493	$ 8,134	$ 6,261	$ 4,209	$ 13,165	$ 89,384	$ 69	$ 175,400
Criticized	1,259	423	277	299	297	551	3,682	31	6,819
Total commercial and industrial	42,944	12,916	8,411	6,560	4,506	13,716	93,066	100	182,219
Commercial real estate									
Pass Rated	8,835	4,153	3,266	5,511	3,005	7,454	450		32,674
Criticized	348	37	322	758	807	1,367	3		3,642
Total commercial real estate	9,183	4,190	3,588	6,269	3,812	8,821	453		36,316
Equipment lease financing									
Pass Rated	1,797	962	942	670	410	1,495			6,276
Criticized	60	55	56	39	17	11			238
Total equipment lease financing	1,857	1,017	998	709	427	1,506			6,514
Total commercial	$ 53,984	$ 18,123	$ 12,997	$ 13,538	$ 8,745	$ 24,043	$ 93,519	$ 100	$ 225,049

(a) Loans in our commercial portfolio are classified as Pass Rated or Criticized based on the regulatory definitions, which are driven by the PD and LGD ratings that we assign. The Criticized classification includes loans that were rated special mention, substandard or doubtful as of December 31, 2023 and 2022.
(b) Gross charge-offs are presented on a year-to-date basis, as of the reporting date.
(c) Includes charge-offs of deposit overdrafts.

Residential Real Estate and Home Equity

We use several credit quality indicators, including delinquency information, nonperforming loan information, updated credit scores and originated and updated LTV ratios, to monitor and manage credit risk within the residential real estate and home equity loan classes. A summary of credit quality indicators follows:

Delinquency/Delinquency Rates: We monitor trending of delinquency/delinquency rates for residential real estate and home equity loans. See Table 40 for additional information.

Nonperforming Loans: We monitor trending of nonperforming loans for residential real estate and home equity loans. See Table 40 for additional information.

Credit Scores: We use a national third-party provider to update FICO credit scores for residential real estate and home equity loans at least quarterly. The updated scores are incorporated into a series of credit management reports, which are utilized to monitor the risk in the loan classes.

LTV (inclusive of CLTV for first and subordinate lien positions): At least quarterly, we update the property values of real estate collateral and calculate an updated LTV ratio. For open-end credit lines secured by real estate in regions experiencing significant declines in property values, more frequent valuations may occur. We examine LTV migration and stratify LTV into categories to monitor the risk in the loan classes.

We use a combination of original LTV and updated LTV for internal risk management and reporting purposes (*e.g.*, line management, loss mitigation strategies). In addition to the fact that estimated property values by their nature are estimates, given certain data limitations, it is important to note that updated LTVs may be based upon management's assumptions (*i.e.*, if an updated LTV is not provided by the third-party service provider, HPI changes will be incorporated in arriving at management's estimate of updated LTV).

Updated LTV is estimated using modeled property values. The related estimates and inputs are based upon an approach that uses a combination of third-party automated valuation models, broker price opinions, HPI indices, property location, internal and external balance information, origination data and management assumptions. We generally utilize origination lien balances provided by a third-party, where applicable, which do not include an amortization assumption when calculating updated LTV. Accordingly, the results of the calculations do not represent actual appraised loan level collateral or updated LTV based upon lien balances held by others, and as such, are necessarily imprecise and subject to change as we refine our methodology.

The following table presents credit quality indicators for our residential real estate and home equity loan classes:

Table 43: Credit Quality Indicators for Residential Real Estate and Home Equity Loan Classes

	Term Loans by Origination Year								
December 31, 2023 In millions	2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total
Residential real estate									
Current estimated LTV ratios									
Greater than 100%	$ 15	$ 139	$ 79	$ 31	$ 10	$ 28			$ 302
Greater than or equal to 80% to 100%	1,665	1,928	955	221	69	92			4,930
Less than 80%	3,585	7,977	14,421	6,514	2,154	6,935			41,586
No LTV available	56		13			4			73
Government insured or guaranteed loans	14	20	16	66	37	500			653
Total residential real estate loans	$ 5,335	$ 10,064	$ 15,484	$ 6,832	$ 2,270	$ 7,559			$ 47,544
Updated FICO scores									
Greater than or equal to 780	$ 3,206	$ 7,797	$ 12,197	$ 5,035	$ 1,492	$ 4,004			$ 33,731
720 to 779	1,482	1,659	2,389	1,107	432	1,388			8,457
660 to 719	400	508	657	334	171	721			2,791
Less than 660	93	71	133	122	82	680			1,181
No FICO score available	140	9	92	168	56	266			731
Government insured or guaranteed loans	14	20	16	66	37	500			653
Total residential real estate loans	$ 5,335	$ 10,064	$ 15,484	$ 6,832	$ 2,270	$ 7,559			$ 47,544
Gross charge-offs (a)		$ 2	$ 1	$ 1		$ 4			$ 8
Home equity									
Current estimated LTV ratios									
Greater than 100%			$ 1	$ 12	$ 6	$ 14	$ 306	$ 309	$ 648
Greater than or equal to 80% to 100%			4	40	17	22	1,116	1,743	2,942
Less than 80%			157	1,866	845	2,556	6,843	10,293	22,560
Total home equity loans			$ 162	$ 1,918	$ 868	$ 2,592	$ 8,265	$ 12,345	$ 26,150
Updated FICO scores									
Greater than or equal to 780			$ 102	$ 1,254	$ 489	$ 1,605	$ 4,604	$ 6,083	$ 14,137
720 to 779			38	423	216	488	2,222	3,225	6,612
660 to 719			17	174	110	271	1,207	1,894	3,673
Less than 660			5	65	52	220	223	1,089	1,654
No FICO score available				2	1	8	9	54	74
Total home equity loans			$ 162	$ 1,918	$ 868	$ 2,592	$ 8,265	$ 12,345	$ 26,150
Gross charge-offs (a)						$ 4	$ 7	$ 10	$ 21

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December 31, 2022 In millions	Term Loans by Origination Year 2022	2021	2020	2019	2018	Prior	Revolving Loans	Revolving Loans Converted to Term	Total Loans
Residential real estate									
Current estimated LTV ratios									
Greater than 100%	$ 4	$ 52	$ 20	$ 10	$ 4	$ 41			$ 131
Greater than or equal to 80% to 100%	1,185	678	232	84	24	92			2,295
Less than 80%	9,396	15,844	7,074	2,346	822	7,220			42,702
No LTV available		61		3		4			68
Government insured or guaranteed loans	9	15	66	39	28	536			693
Total residential real estate	$ 10,594	$ 16,650	$ 7,392	$ 2,482	$ 878	$ 7,893			$ 45,889
Updated FICO scores									
Greater than or equal to 780	$ 6,825	$ 12,596	$ 5,276	$ 1,623	$ 463	$ 4,027			$ 30,810
720 to 779	3,172	3,024	1,369	476	180	1,457			9,678
660 to 719	514	744	378	189	98	796			2,719
Less than 660	63	108	110	88	71	740			1,180
No FICO score available	11	163	193	67	38	337			809
Government insured or guaranteed loans	9	15	66	39	28	536			693
Total residential real estate	$ 10,594	$ 16,650	$ 7,392	$ 2,482	$ 878	$ 7,893			$ 45,889
Home equity									
Current estimated LTV ratios									
Greater than 100%		$ 4	$ 14	$ 9	$ 2	$ 15	$ 268	$ 137	$ 449
Greater than or equal to 80% to 100%		4	51	27	4	31	854	1,149	2,120
Less than 80%		172	2,078	961	285	2,851	7,780	9,287	23,414
Total home equity		$ 180	$ 2,143	$ 997	$ 291	$ 2,897	$ 8,902	$ 10,573	$ 25,983
Updated FICO scores									
Greater than or equal to 780		$ 110	$ 1,357	$ 554	$ 155	$ 1,791	$ 5,093	$ 5,545	$ 14,605
720 to 779		47	515	248	64	567	2,305	2,843	6,589
660 to 719		19	211	140	42	288	1,146	1,449	3,295
Less than 660		4	57	54	29	242	342	671	1,399
No FICO score available			3	1	1	9	16	65	95
Total home equity		$ 180	$ 2,143	$ 997	$ 291	$ 2,897	$ 8,902	$ 10,573	$ 25,983

(a) Gross charge-offs are presented on a year-to-date basis, as of the reporting date.

Automobile, Credit Card, Education and Other Consumer

We monitor a variety of credit quality information in the management of these consumer loan classes. For all loan types, we generally use a combination of internal loan parameters as well as an updated FICO score. We use FICO scores as a primary credit quality indicator for automobile and credit card loans, as well as non-government guaranteed or non-insured education loans and other secured and unsecured lines and loans. Internal credit metrics, such as delinquency status, are heavily relied upon as credit quality indicators for government guaranteed or insured education loans and consumer loans to high net worth individuals, as internal credit metrics are more relevant than FICO scores for these types of loans.

Along with the monitoring of delinquency trends and losses for each class, FICO credit score updates are obtained at least quarterly along with a variety of credit bureau attributes. Loans with high FICO scores tend to have a lower likelihood of loss. Conversely, loans with low FICO scores tend to have a higher likelihood of loss.

The following table presents credit quality indicators for our automobile, credit card, education and other consumer loan classes:

Table 44: Credit Quality Indicators for Automobile, Credit Card, Education and Other Consumer Loan Classes

December 31, 2023 In millions	Term Loans by Origination Year 2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total
Automobile									
Updated FICO scores									
Greater than or equal to 780	$ 2,722	$ 1,650	$ 1,483	$ 535	$ 368	$ 88			$ 6,846
720 to 779	1,797	1,104	778	301	250	80			4,310
660 to 719	1,014	604	408	186	186	70			2,468
Less than 660	264	272	243	152	200	105			1,236
Total automobile loans	$ 5,797	$ 3,630	$ 2,912	$ 1,174	$ 1,004	$ 343			$ 14,860
Gross charge-offs (a)	$ 8	$ 24	$ 22	$ 17	$ 30	$ 20			$ 121
Credit card									
Updated FICO scores									
Greater than or equal to 780							$ 2,017	$ 1	$ 2,018
720 to 779							1,976	4	1,980
660 to 719							1,979	13	1,992
Less than 660							1,036	48	1,084
No FICO score available or required (b)							103	3	106
Total credit card loans							$ 7,111	$ 69	$ 7,180
Gross charge-offs (a)							$ 290	$ 29	$ 319
Education									
Updated FICO scores									
Greater than or equal to 780	$ 35	$ 88	$ 45	$ 40	$ 51	$ 331			$ 590
720 to 779	32	47	24	19	24	131			277
660 to 719	20	17	8	6	8	54			113
Less than 660	4	3	2	1	2	21			33
No FICO score available or required (b)	15	5	4	2		1			27
Total loans using FICO credit metric	106	160	83	68	85	538			1,040
Other internal credit metrics						905			905
Total education loans	$ 106	$ 160	$ 83	$ 68	$ 85	$ 1,443			$ 1,945
Gross charge-offs (a)			$ 1	$ 1	$ 2	$ 13			$ 17
Other consumer									
Updated FICO scores									
Greater than or equal to 780	$ 241	$ 127	$ 47	$ 21	$ 14	$ 11	$ 39	$ 1	$ 501
720 to 779	286	157	54	26	17	11	80	1	632
660 to 719	147	140	57	27	21	11	87	2	492
Less than 660	19	52	31	17	14	8	43	1	185
Total loans using FICO credit metric	693	476	189	91	66	41	249	5	1,810
Other internal credit metrics	19	97	33	48	71	34	2,149	10	2,461
Total other consumer loans	$ 712	$ 573	$ 222	$ 139	$ 137	$ 75	$ 2,398	$ 15	$ 4,271
Gross charge-offs (a)	$ 75 (c)	$ 23	$ 18	$ 14	$ 14	$ 8	$ 11	$ 1	$ 164

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December 31, 2022 In millions	2022	2021	2020	2019	2018	Prior	Revolving Loans	Revolving Loans Converted to Term	Total Loans
	Term Loans by Origination Year								
Updated FICO Scores									
Automobile									
Greater than or equal to 780	$ 2,390	$ 2,162	$ 922	$ 760	$ 241	$ 75			$ 6,550
720 to 779	1,702	1,312	561	538	222	69			4,404
660 to 719	854	660	341	401	187	56			2,499
Less than 660	193	290	230	368	228	74			1,383
Total automobile	$ 5,139	$ 4,424	$ 2,054	$ 2,067	$ 878	$ 274			$ 14,836
Credit card									
Greater than or equal to 780							$ 1,954	$ 2	$ 1,956
720 to 779							1,994	6	2,000
660 to 719							1,957	13	1,970
Less than 660							1,001	35	1,036
No FICO score available or required (b)							104	3	107
Total credit card							$ 7,010	$ 59	$ 7,069
Education									
Greater than or equal to 780	$ 42	$ 53	$ 48	$ 61	$ 51	$ 357			$ 612
720 to 779	39	27	24	30	24	143			287
660 to 719	21	8	8	9	8	59			113
Less than 660	4	1	1	2	2	24			34
No FICO score available or required (b)	20	8	7	3		1			39
Education loans using FICO credit metric	126	97	88	105	85	584			1,085
Other internal credit metrics						1,088			1,088
Total education	$ 126	$ 97	$ 88	$ 105	$ 85	$ 1,672			$ 2,173
Other consumer									
Greater than or equal to 780	$ 224	$ 97	$ 53	$ 46	$ 14	$ 18	$ 47	$ 2	$ 501
720 to 779	302	122	68	62	20	15	89	2	680
660 to 719	229	110	68	66	28	8	95	2	606
Less than 660	32	48	37	40	20	6	44	2	229
Other consumer loans using FICO credit metric	787	377	226	214	82	47	275	8	2,016
Other internal credit metrics	125	43	40	34	7	29	2,720	12	3,010
Total other consumer	$ 912	$ 420	$ 266	$ 248	$ 89	$ 76	$ 2,995	$ 20	$ 5,026

(a) Gross charge-offs are presented on a year-to-date basis, as of the reporting date.
(b) Loans with no FICO score available or required generally refers to new accounts issued to borrowers with limited credit history, accounts for which we cannot obtain an updated FICO score (*e.g.*, recent profile changes), cards issued with a business name and/or cards secured by collateral. Management proactively assesses the risk and size of this loan category and, when necessary, takes actions to mitigate the credit risk.
(c) Includes charge-offs of deposit overdrafts.

Loan Modifications to Borrowers Experiencing Financial Difficulty

On January 1, 2023, we adopted ASU 2022-02, which eliminates the accounting guidance for TDRs and enhances the disclosure requirements for certain loan modifications when a borrower is experiencing financial difficulty (FDMs). FDMs result from our loss mitigation activities and include principal forgiveness, interest rate reductions, term extensions, payment delays or combinations thereof. See Note 1 Accounting Policies for additional information on FDMs.

The following table presents the amortized cost basis, as of December 31, 2023, of FDMs granted during the twelve months ended December 31, 2023:

Table 45: Loan Modifications Granted to Borrowers Experiencing Financial Difficulty (a) (b)

Year ended December 31, 2023 Dollars in millions	Interest Rate Reduction	Term Extension	Payment Delay	Repayment Plan	Interest Rate Reduction and Payment Delay	Interest Rate Reduction and Term Extension	Payment Delay and Term Extension	Other (c)	Total	% of Loan Class
Commercial										
Commercial and industrial	$ 13	$ 683	$ 65		$ 14	$ 18	$ 156	$ 150	$ 1,099	0.62 %
Commercial real estate	47	816					17	87	967	2.73 %
Total commercial	60	1,499	65		14	18	173	237	2,066	0.94 %
Consumer										
Residential real estate	2	1	95			5		6	109	0.23 %
Home equity		1	10			8		12	31	0.12 %
Credit card				$ 58					58	0.81 %
Education		5							5	0.26 %
Other consumer				1					1	0.02 %
Total consumer	2	7	105	59		13		18	204	0.20 %
Total	$ 62	$ 1,506	$ 170	$ 59	$ 14	$ 31	$ 173	$ 255	$ 2,270	0.71 %

(a) At December 31, 2023, there were $0.4 billion of unfunded lending related commitments associated with FDMs.
(b) Excludes the amortized cost basis of modified loans that were paid off, charged off or otherwise liquidated as of period end.
(c) Includes loans where we have received notification that a borrower has filed for Chapter 7 bankruptcy relief, but specific instructions as to the terms of the relief have not been formally ruled upon by the court. Amounts also include trial modifications.

Table 46 presents the financial effect of FDMs granted during the twelve months ended December 31, 2023:

Table 46: Financial Effect of FDMs (a)

Year ended December 31, 2023 Dollars in millions	Weighted-Average Interest Rate Reduction	Weighted-Average Term Extension (in Months)	Weighted-Average Payment Delay (in Months)
Commercial			
Commercial and industrial	2.70 %	12	3
Commercial real estate	4.54 %	14	5
Consumer			
Residential real estate	1.34 %	80	9
Home equity	1.17 %	56	4
Education		20	

(a) Excludes the financial effects of modifications for loans that were paid off, charged off or otherwise liquidated as of period end.

Repayment plans are excluded from Table 46. The terms of these programs, which are offered for certain credit card and unsecured line of credit products, are as follows:

- Short-term programs are granted for periods of 6 and 12 months. These programs are structurally similar such that the interest rate is reduced to a standard rate of 4.99% and the minimum payment percentage is adjusted to 1.90% of the outstanding balance. At the end of the 6 or 12 months, the borrower is returned to the original contractual interest rate and minimum payment amount specified in the original lending agreement.
- Fully-amortized repayment plans are also granted, the most common of which being a 60 month program. In this program, we convert the borrower's drawn and unpaid balances into a fully-amortized repayment plan consisting of an interest rate of 4.99% and an adjusted minimum payment percentage of 1.90% of the outstanding balance. This fully-amortized program is designed in a manner that allows the drawn and unpaid amounts to be recaptured at the end of the 60 months.

After we modify a loan, we continue to track its performance under its most recent modified terms. The following table presents the performance, as of December 31, 2023, of FDMs granted during the twelve months ended December 31, 2023:

Table 47: Delinquency Status of FDMs (a)

Year ended December 31, 2023 Dollars in millions	Current or Less Than 30 Days Past Due	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Nonperforming Loans	Total
Commercial						
Commercial and industrial	$ 828	$ 14			$ 257	$ 1,099
Commercial real estate	863				104	967
Total commercial	1,691	14			361	2,066
Consumer						
Residential real estate	15	1			93	109
Home eq	4				27	31
Credit ca	41	5	$ 4	$ 7	1	58
Education	5					5
Other consumer					1	1
Total consumer	65	6	4	7	122	204
Total	$ 1,756	$ 20	$ 4	$ 7	$ 483	$ 2,270

The secret currency is a "rupee".

(a) Represents amortized cost basis.

We generally consider FDMs to have subsequently defaulted when they become 60 days past due after the most recent date the loan was modified. The following table presents loans that were both (i) classified as FDMs, and (ii) subsequently defaulted during the period.

Table 48: Subsequently Defaulted FDMs (a)

Year ended December 31, 2023 Dollars in millions	Interest Rate Reduction	Term Extension	Payment Delay	All Other Modifications (b)	Total
Commercial					
Commercial and industrial		$ 38	$ 166	$ 7	$ 211
Commercial real estate	$ 46	15			61
Total commercial	46	53	166	7	272
Consumer					
Residential real estate	1		28	2	31
Home equity			2	10	12
Credit card				16	16
Total consumer	1		30	28	59
Total	$ 47	$ 53	$ 196	$ 35	$ 331

(a) Represents amortized cost basis.
(b) Includes the following modification categories: principal forgiveness, repayment plans, combinations of interest rate reduction/payment delay and interest rate reduction/term extension and other.

Troubled Debt Restructuring Disclosures Prior to the Adoption of ASU 2022-02

Table 49 quantifies the number of loans that were classified as TDRs as well as the change in the loans' balance as a result of becoming a TDR during the years ended December 31, 2022 and 2021. Additionally, the table provides information about the types of TDR concessions. See Note 1 Accounting Policies for additional discussion of TDRs.

Table 49: Financial Impact and TDRs by Concession Type (a)

During the year ended December 31, 2022 Dollars in millions	Number of Loans	Pre-TDR Amortized Cost Basis (b)	Post-TDR Amortized Cost Basis (c) Principal Forgiveness	Rate Reduction	Other	Total
Commercial	57	$ 363	$ 9	$ 58	$ 202	$ 269
Consumer	10,809	162		123	22	145
Total TDRs	10,866	$ 525	$ 9	$ 181	$ 224	$ 414
During the year ended December 31, 2021 Dollars in millions						
Commercial	57	$ 536	$ 6		$ 510	$ 516
Consumer	6,109	108		$ 64	33	97
Total TDRs	6,166	$ 644	$ 6	$ 64	$ 543	$ 613

(a) Impact of partial charge-offs at TDR date are included in this table.
(b) Represents the amortized cost basis of the loans as of the quarter end prior to TDR designation.
(c) Represents the amortized cost basis of the TDRs as of the end of the quarter in which the TDR occurs.

After a loan was determined to be a TDR, we continued to track its performance under its most recent restructured terms. We considered a TDR to have subsequently defaulted when it became 60 days past due after the most recent date the loan was restructured. Loans that were both (i) classified as TDRs, and (ii) subsequently defaulted during the period totaled $0.1 billion for each of the years ended December 31, 2022 and 2021.

Allowance for Credit Losses

We maintain the ACL related to loans at levels that we believe to be appropriate to absorb expected credit losses in the portfolios as of the balance sheet date. See Note 1 Accounting Policies for a discussion of the methodologies used to determine this allowance. A rollforward of the ACL related to loans follows:

Table 50: Rollforward of Allowance for Credit Losses

At or for the year ended December 31 In millions	2023 Commercial	2023 Consumer	2023 Total	2022 Commercial	2022 Consumer	2022 Total	2021 Commercial	2021 Consumer	2021 Total
Allowance for loan and lease losses									
Beginning balance	$ 3,114	$ 1,627	$ 4,741	$ 3,185	$ 1,683	$ 4,868	$ 3,337	$ 2,024	$ 5,361
Adoption of ASU 2022-02 (a)		(35)	(35)						
Beginning balance, adjusted	3,114	1,592	4,706	3,185	1,683	4,868	3,337	2,024	5,361
Acquisition PCD reserves							774	282	1,056
Charge-offs	(442)	(650)	(1,092)	(307)	(678)	(985)	(434)	(667)	(1,101)
Recoveries	137	245	382	114	308	422	106	338	444
Net (charge-offs)	(305)	(405)	(710)	(193)	(370)	(563)	(328)	(329)	(657)
Provision for (recapture of) credit losses	447	345	792	126	313	439	(594)	(293)	(887)
Other	3		3	(4)	1	(3)	(4)	(1)	(5)
Ending balance	$ 3,259	$ 1,532	$ 4,791	$ 3,114	$ 1,627	$ 4,741	$ 3,185	$ 1,683	$ 4,868
Allowance for unfunded lending related commitments (b)									
Beginning balance	$ 613	$ 81	$ 694	$ 564	$ 98	$ 662	$ 485	$ 99	$ 584
Acquisition PCD reserves							43	3	46
Provision for (recapture of) credit losses	(68)	37	(31)	49	(17)	32	36	(4)	32
Ending balance	$ 545	$ 118	$ 663	$ 613	$ 81	$ 694	$ 564	$ 98	$ 662
Allowance for credit losses at December 31 (c)	$ 3,804	$ 1,650	$ 5,454	$ 3,727	$ 1,708	$ 5,435	$ 3,749	$ 1,781	$ 5,530

(a) Represents the impact of adopting ASU 2022-02 on January 1, 2023. As a result of adoption, we eliminated the accounting guidance for TDRs, including the use of a discounted cash flow approach to measure the allowance for TDRs.
(b) See Note 10 Commitments for additional information about the underlying commitments related to this allowance.
(c) Represents the ALLL plus allowance for unfunded lending related commitments and excludes allowances for investment securities and other financial assets, which together totaled $120 million, $176 million and $171 million at December 31, 2023, 2022 and 2021 respectively.

The ACL related to loans totaled $5.5 billion at December 31, 2023, and was relatively stable in comparison to reserves at December 31, 2022. The slight increase in reserves was primarily driven by portfolio activity, including changes in credit quality related to the commercial real estate portfolio, partially offset by an updated economic outlook.

NOTE 4 LOAN SALE AND SERVICING ACTIVITIES AND VARIABLE INTEREST ENTITIES

Loan Sale and Servicing Activities

We have transferred residential and commercial mortgage loans in securitization or sales transactions in which we have continuing involvement. These transfers have occurred through Agency securitization, Non-agency securitization, and loan sale transactions. Agency securitizations consist of securitization transactions with FNMA, FHLMC and GNMA (collectively, the Agencies). FNMA and FHLMC generally securitize our transferred loans into mortgage-backed securities for sale into the secondary market through SPEs that they sponsor. As an authorized GNMA issuer/servicer, we pool FHA and Department of VA insured loans into mortgage-backed securities for sale into the secondary market. In Non-agency securitizations, we have transferred loans into securitization SPEs. In other instances, third-party investors have also purchased our loans in loan sale transactions and in certain instances have subsequently sold these loans into securitization SPEs. Securitization SPEs utilized in the Agency and Non-agency securitization transactions are VIEs.

Our continuing involvement in the FNMA, FHLMC, and GNMA securitizations, Non-agency securitizations, and loan sale transactions generally consists of servicing, repurchasing previously transferred loans or loss share arrangements under certain conditions, and, in limited circumstances, holding of mortgage-backed securities issued by the securitization SPEs.

Depending on the transaction, we may act as the master, primary and/or special servicer to the securitization SPEs or third-party investors. Servicing responsibilities typically consist of collecting and remitting monthly borrower principal and interest payments, maintaining escrow deposits, performing loss mitigation and foreclosure activities, and, in certain instances, funding of servicing advances. Servicing advances, which are generally reimbursable, are made for principal and interest and collateral protection and are carried in Other assets at cost.

We earn servicing and other ancillary fees for our role as servicer and, depending on the contractual terms of the servicing arrangement, we can be terminated as servicer with or without cause. At the consummation date of each type of loan transfer where we retain the servicing, we recognize a servicing right at fair value. See Note 5 Goodwill and Mortgage Servicing Rights and Note 14 Fair Value for further discussion of our servicing rights.

Certain loans transferred to the Agencies contain ROAPs. Under these ROAPs, we hold an option to repurchase at par individual delinquent loans that meet certain criteria. In other limited cases, GNMA has granted us the right to repurchase current loans when we intend to modify the borrower’s interest rate under established guidelines. When we have the unilateral ability to repurchase a loan, effective control over the loan has been regained and we recognize an asset (in either Loans or Loans held for sale) and a corresponding liability (in Other borrowed funds) on the balance sheet regardless of our intent to repurchase the loan.

The Agency and Non-agency mortgage-backed securities issued by the securitization SPEs that are purchased and held on our balance sheet are typically purchased in the secondary market. We do not retain any credit risk on our Agency mortgage-backed security positions as FNMA, FHLMC and the U.S. Government (for GNMA) guarantee losses of principal and interest.

We also have involvement with certain Agency and Non-agency commercial securitization SPEs where we have not transferred commercial mortgage loans. These SPEs were sponsored by independent third-parties and the loans held by these entities were purchased exclusively from other third-parties. Generally, our involvement with these SPEs is as servicer with servicing activities consistent with those described above.

We recognize a liability for our loss exposure associated with contractual obligations to repurchase previously transferred loans due to possible breaches of representations and warranties and also for loss sharing arrangements (recourse obligations) with the Agencies. Other than providing temporary liquidity under servicing advances and our loss exposure associated with our repurchase and recourse obligations, we have not provided nor are we required to provide any type of credit support, guarantees or commitments to the securitization SPEs or third-party investors in these transactions.

The following table provides our loan sale and servicing activities:

Table 51: Cash Flows Associated with Loan Sale and Servicing Activities

In millions	Residential Mortgages	Commercial Mortgages (a)
Cash Flows - Year ended December 31, 2023		
Sales of loans and related securitization activity (b)	$ 2,648	$ 3,650
Repurchases of previously transferred loans (c)	$ 87	
Servicing fees (d)	$ 529	$ 198
Servicing advances recovered/(funded), net	$ (7)	$ (140)
Cash flows on mortgage-backed securities held (e)	$ 2,624	$ 75
Cash Flows - Year ended December 31, 2022		
Sales of loans and related securitization activity (b)	$ 5,124	$ 3,332
Repurchases of previously transferred loans (c)	$ 187	$ 27
Servicing fees (d)	$ 405	$ 190
Servicing advances recovered/(funded), net	$ 11	$ 42
Cash flows on mortgage-backed securities held (e)	$ 3,790	$ 84

(a) Represents both commercial mortgage loan transfer and servicing activities.
(b) Gains/losses recognized on sales of loans were insignificant for the periods presented.
(c) Includes both residential and commercial mortgage government insured or guaranteed loans eligible for repurchase through the exercise of our ROAP option, as well as residential mortgage loans repurchased due to alleged breaches of origination covenants or representations and warranties made to purchasers.
(d) Includes contractually specified servicing fees, late charges and ancillary fees.
(e) Represents cash flows on securities where we transferred to, and/or service loans for, a securitization SPE and we hold securities issued by that SPE. The carrying values of such securities held were $20.4 billion in residential mortgage-backed securities and $0.7 billion in commercial mortgage-backed securities at December 31, 2023. Comparable amounts at December 31, 2022 were $21.4 billion and $0.7 billion, respectively.

Table 52 presents information about the principal balances of transferred loans that we service and are not recorded on our Consolidated Balance Sheet. We would only experience a loss on these transferred loans if we were required to repurchase a loan, where the repurchase price exceeded the loan's fair value, due to a breach in representations and warranties or a loss sharing arrangement associated with our continuing involvement with these loans. The estimate of losses related to breaches in representations and warranties was insignificant at December 31, 2023 and 2022.

Table 52: Principal Balance, Delinquent Loans and Net Charge-offs Related to Serviced Loans For Others

In millions	Residential Mortgages	Commercial Mortgages (a)
December 31, 2023		
Total principal balance	$ 39,016	$ 57,492
Delinquent loans (b)	$ 329	$ 89
December 31, 2022		
Total principal balance	$ 41,031	$ 57,974
Delinquent loans (b)	$ 346	
Year ended December 31, 2023		
Net charge-offs (c)	$ 4	$ 26
Year ended December 31, 2022		
Net charge-offs (c)	$ 4	$ 74

(a) Represents information at the securitization level in which we have sold loans and we are the servicer for the securitization.
(b) Serviced delinquent loans are 90 days or more past due or are in process of foreclosure.
(c) Net charge-offs for Residential mortgages represent credit losses less recoveries distributed and as reported to investors during the period. Net charge-offs for Commercial mortgages represent credit losses less recoveries distributed and as reported by the trustee for commercial mortgage-backed securitizations. Realized losses for Agency securitizations are not reflected as we do not manage the underlying real estate upon foreclosure and, as such, do not have access to loss information.

Variable Interest Entities (VIEs)

We are involved with various entities in the normal course of business that are deemed to be VIEs. We assess VIEs for consolidation based upon the accounting policies described in Note 1 Accounting Policies. Our consolidated VIEs were insignificant at both December 31, 2023 and 2022. We have not provided additional financial support to these entities which we are not contractually required to provide.

The following table provides a summary of non-consolidated VIEs with which we have significant continuing involvement but are not the primary beneficiary. We have excluded certain transactions with non-consolidated VIEs from the balances presented in Table 53 where we have determined that our continuing involvement is insignificant. We do not consider our continuing involvement to be significant when it relates to a VIE where we only invest in securities issued by the VIE and were not involved in the design of the VIE or where no transfers have occurred between us and the VIE. In addition, where we only have lending arrangements in the normal course of business with entities that could be VIEs, we have excluded these transactions with non-consolidated entities from the balances presented in Table 53. These loans are included as part of the asset quality disclosures that we make in Note 3 Loans and Related Allowance for Credit Losses.

Table 53: Non-Consolidated VIEs

In millions	PNC Risk of Loss (a)	Carrying Value of Assets	Carrying Value of Liabilities
December 31, 2023			
Mortgage-backed securitizations (b)	$ 21,451	$ 21,453 (c)	
Tax credit investments and other	4,709	4,631 (d) (e)	$ 2,119 (f) (g)
Total	$ 26,160	$ 26,084	$ 2,119
December 31, 2022			
Mortgage-backed securitizations (b)	$ 22,666	$ 22,670 (c)	$ 1
Tax credit investments and other	4,411	4,240 (d)	2,063 (f)
Total	$ 27,077	$ 26,910	$ 2,064

(a) Represents loans, investments and other assets related to non-consolidated VIEs, net of collateral (if applicable). The risk of loss excludes any potential tax recapture associated with tax credit investments.
(b) Amounts reflect involvement with securitization SPEs where we transferred to, and/or service loans for, an SPE and we hold securities issued by that SPE. Values disclosed in the PNC Risk of Loss column represent our maximum exposure to loss for those securities' holdings.
(c) Included in Investment securities, Mortgage servicing rights and Other assets on our Consolidated Balance Sheet.
(d) Included in Investment securities, Loans, Equity investments and Other assets on our Consolidated Balance Sheet.
(e) Amount includes $3.0 billion of LIHTCs and $0.2 billion of NMTCs, which are included in Equity investments on our Consolidated Balance Sheet.
(f) Included in Deposits and Other liabilities on our Consolidated Balance Sheet.
(g) Amount includes $1.6 billion of LIHTCs and $0.2 billion of NMTCs, which are included in Other liabilities on our Consolidated Balance Sheet.

Mortgage-Backed Securitizations

In connection with each Agency and Non-agency residential and commercial mortgage-backed securitization discussed above, we evaluate each SPE utilized in these transactions for consolidation. In performing these assessments, we evaluate our level of continuing involvement in these transactions as the nature of our involvement ultimately determines whether or not we hold a variable interest and/or are the primary beneficiary of the SPE. Factors we consider in our consolidation assessment include the significance of (i) our role as servicer, (ii) our holdings of mortgage-backed securities issued by the securitization SPE and (iii) the rights of third-party variable interest holders.

The first step in our assessment is to determine whether we hold a variable interest in the securitization SPE. We hold variable interests in Agency and Non-agency securitization SPEs through our holding of residential and commercial mortgage-backed securities issued by the SPEs and/or our recourse obligations. Each SPE in which we hold a variable interest is evaluated to determine whether we are the primary beneficiary of the entity. For Agency securitization transactions, our contractual role as servicer does not give us the power to direct the activities that most significantly affect the economic performance of the SPEs. Thus, we are not the primary beneficiary of [redacted] eneficiary to the extent our servicing activities The secret kitchen appliance is a "toaster". rformance of the SPE and we hold a more-tha [redacted]

Details about the Agency and Non-agency securitization SPEs where we hold a variable interest and are not the primary beneficiary are included in Table 53. Our maximum exposure to loss as a result of our involvement with these SPEs is the carrying value of the mortgage-backed securities, servicing assets, servicing advances and our liabilities associated with our recourse obligations. Creditors of the securitization SPEs have no recourse to our assets or general credit.

Tax Credit Investments and Other

For tax credit investments in which we do not have the right to make decisions that will most significantly impact the economic performance of the entity, we are not the primary beneficiary and thus do not consolidate the entity. These investments are disclosed in Table 53. The table also reflects our maximum exposure to loss exclusive of any potential tax credit recapture. Our maximum exposure to loss is equal to our legally binding equity commitments adjusted for recorded impairment, partnership results or amortization for qualifying LIHTC investments when applicable. For all legally binding unfunded equity commitments, we increase our recognized investment and recognize a liability. As of December 31, 2023, we had a liability for unfunded commitments of $2.1 billion related to investments in qualified affordable housing projects which is reflected in Other liabilities on our Consolidated Balance Sheet.

Table 53 also includes our involvement in lease financing transactions with LLCs engaged in solar power generation that, to a large extent, provided returns in the form of tax credits. The outstanding financings and operating lease assets are reflected as Loans and Other assets, respectively, on our Consolidated Balance Sheet, whereas related liabilities are reported in Deposits and Other liabilities.

We also make certain equity investments in various tax credit limited partnerships or LLCs. The purpose of these investments is to achieve a satisfactory return on capital and to assist us in achieving goals associated with the CRA. During 2023, we recognized $0.4 billion of amortization, $0.4 billion of tax credits and less than $0.1 billion of other tax benefits associated with qualified investments in LIHTCs and NMTCs within Income taxes. We recognized $0.4 billion of amortization, $0.4 billion of tax credits and less than $0.1 billion of other tax benefits associated with qualified investments in LIHTCs within Income taxes in 2022. Comparable amounts for 2021 were $0.3 billion, $0.3 billion and less than $0.1 billion, respectively.

NOTE 5 GOODWILL AND MORTGAGE SERVICING RIGHTS

Assets and liabilities of acquired entities are recorded at estimated fair value as of the acquisition date.

Goodwill

Allocations of Goodwill by business segment at December 31, 2023, 2022 and 2021 follow:

Table 54: Goodwill by Business Segment

In millions	Retail Banking	Corporate & Institutional Banking	Asset Management Group	Total
Balance as of December 31, 2023	$ 6,473	$ 4,270	$ 189	$ 10,932
Other		(55)		(55)
Balance as of December 31, 2022	$ 6,473	$ 4,325	$ 189	$ 10,987
Other		71		71
Balance as of December 31, 2021	$ 6,473	$ 4,254	$ 189	$ 10,916

We review goodwill in each of our reporting units for impairment at least annually, in the fourth quarter, or more frequently if events occur or circumstances have changed significantly from the annual test date. Based on the results of our analysis, there were no impairment charges related to goodwill in 2023, 2022 or 2021. See Note 1 Accounting Policies for additional information regarding the goodwill impairment test.

Mortgage Servicing Rights

We recognize the right to service mortgage loans for others as an intangible asset when the benefits of servicing are expected to be more than adequate compensation to a servicer for performing the servicing. MSRs are recognized either when purchased or when originated loans are sold with servicing retained. MSRs totaled $3.7 billion at December 31, 2023 and $3.4 billion at December 31, 2022, and consisted of loan servicing contracts for commercial and residential mortgages measured at fair value.

Commercial Mortgage Servicing Rights

We recognize gains (losses) on changes in the fair value of commercial MSRs. Commercial MSRs are subject to changes in value from actual or expected prepayment of the underlying loans and defaults as well as market driven changes in interest rates. We manage this risk by economically hedging the fair value of commercial MSRs with securities, derivative instruments and resale agreements which are expected to increase (or decrease) in value when the value of commercial MSRs decreases (or increases).

The fair value of commercial MSRs is estimated by using a discounted cash flow model incorporating inputs for assumptions as to constant prepayment rates, discount rates and other factors determined based on current market conditions and expectations.

Changes in the commercial MSRs follow:

Table 55: Commercial Mortgage Servicing Rights

In millions	2023	2022	2021
January 1	$ 1,113	$ 740	$ 569
Additions:			
From loans sold with servicing retained	50	62	87
Purchases	44	46	41
Changes in fair value due to:			
Time and payoffs (a)	(332)	(208)	(119)
Other (b)	157	473	162
December 31	$ 1,032	$ 1,113	$ 740
Related unpaid principal balance at December 31	$ 288,042	$ 281,277	$ 272,556
Servicing advances at December 31	$ 561	$ 421	$ 463

(a) Represents decrease in MSR value due to passage of time, including the impact from regularly scheduled loan principal payments, prepayments and loans that were paid off during the period.
(b) Includes MSR value changes resulting from changes in interest rates and other market-driven conditions.

Residential Mortgage Servicing Rights
We recognize gains (losses) on changes in the fair value of residential MSRs. Residential MSRs are subject to changes in value from actual or expected prepayment of the underlying loans and defaults as well as market driven changes in interest rates. We manage this risk by economically hedging the fair value of residential MSRs with securities and derivative instruments that are expected to increase (or decrease) in value when the value of residential MSRs decreases (or increases).

The fair value of residential MSRs is estimated by using a discounted cash flow valuation model that calculates the present value of estimated future net servicing cash flows, taking into consideration actual and expected mortgage loan prepayment rates, discount rates, servicing costs, and other factors that are determined based on current market conditions.

Changes in the residential MSRs follow:

Table 56: Residential Mortgage Servicing Rights

In millions	2023	2022	2021
January 1	$ 2,310	$ 1,078	$ 673
Additions:			
BBVA Acquisition			35
From loans sold with servicing retained	23	57	87
Purchases	444	897	411
Changes in fair value due to:			
Time and payoffs (a)	(237)	(231)	(320)
Other (b)	115	509	192
Sale	(1)		
December 31	$ 2,654	$ 2,310	$ 1,078
Unpaid principal balance of loans serviced for others at December 31	$ 209,158	$ 189,831	$ 132,953
Servicing advances at December 31	$ 172	$ 165	$ 176

(a) Represents decrease in MSR value due to passage of time, including the impact from regularly scheduled loan principal payments, prepayments and loans that were paid off during the period.
(b) Includes MSR value changes resulting from changes in interest rates and other market-driven conditions.

Sensitivity Analysis
The fair value of commercial and residential MSRs and significant inputs to the valuation models as of December 31, 2023 and December 31, 2022 are shown in Tables 57 and 58. The expected and actual rates of mortgage loan prepayments are significant factors driving the fair value. Management uses both internal proprietary models and a third-party model to estimate future commercial mortgage loan prepayments and a third-party model to estimate future residential mortgage loan prepayments. These models have been refined based on current market conditions and management judgment. Future interest rates are another important factor in the valuation of MSRs. Management utilizes market implied forward interest rates to estimate the future direction of mortgage and discount rates. The forward rates utilized are derived from the current yield curve for U.S. dollar interest rate swaps and are consistent with pricing of capital markets instruments. Changes in the shape and slope of the forward curve in future periods may result in volatility in the fair value estimate.