Table of contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington D.C. 20549

FORM 10-Q

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2022
or
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission File Number 001-11302

KeyCorp

Exact name of registrant as specified in its charter:

Ohio	**34-6542451**
State or other jurisdiction of incorporation or organization:	**I.R.S. Employer Identification Number:**
127 Public Square, Cleveland, Ohio	**44114-1306**
Address of principal executive offices:	**Zip Code:**

(216) 689-3000
Registrant's telephone number, including area code:

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 Shares, $1 par value	KEY	New York Stock Exchange
Depositary Shares (each representing a 1/40th interest in a share of Fixed-to-Floating Rate Perpetual Non-Cumulative Preferred Stock, Series E)	KEY PrI	New York Stock Exchange
Depositary Shares (each representing a 1/40th interest in a share of Fixed Rate Perpetual Non-Cumulative Preferred Stock, Series F)	KEY PrJ	New York Stock Exchange
Depositary Shares (each representing a 1/40th interest in a share of Fixed Rate Perpetual Non-Cumulative Preferred Stock, Series G)	KEY PrK	New York Stock Exchange
Depositary Shares (each representing a 1/40th interest in a share of Fixed Rate Reset Perpetual Non-Cumulative Preferred Stock, Series H)	KEY PrL	New York Stock Exchange

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

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Common Shares with a par value of $1 each	**932,969,593 shares**
Title of class	**Outstanding at October 28, 2022**

KEYCORP
TABLE OF CONTENTS
PART I. FINANCIAL INFORMATION

		Page Number
Item 1.	Financial Statements	49
	Consolidated Balance Sheets	49
	Consolidated Statements of Income	50
	Consolidated Statements of Comprehensive Income	51
	Consolidated Statements of Changes in Equity	52
	Consolidated Statements of Cash Flows	53
	Notes to Consolidated Financial Statements (Unaudited)	54
	Note 1. Basis of Presentation and Accounting Policies	54
	Note 2. Earnings Per Common Share	56
	Note 3. Loan Portfolio	56
	Note 4. Asset Quality	57
	Note 5. Fair Value Measurements	67
	Note 6. Securities	73
	Note 7. Derivatives and Hedging Activities	75
	Note 8. Mortgage Servicing Assets	80
	Note 9. Leases	82
	Note 10. Goodwill	82
	Note 11. Variable Interest Entities	83
	Note 12. Income Taxes	84
	Note 13. Acquisitions and Discontinued Operations	85
	Note 14. Securities Financing Activities	85
	Note 15. Employee Benefits	86
	Note 16. Trust Preferred Securities Issued by Unconsolidated Subsidiaries	86
	Note 17. Contingent Liabilities and Guarantees	87
	Note 18. Accumulated Other Comprehensive Income	89
	Note 19. Shareholders' Equity	90
	Note 20. Business Segment Reporting	90
	Note 21. Revenue from Contracts with Customers	92
	Report of Independent Registered Public Accounting Firm (PCAOB ID: 42)	94

Item 2.	Management's Discussion & Analysis of Financial Condition & Results of Operations	4
	Introduction	4
	Terminology	4
	Forward-looking statements	5
	Long-term financial targets	7
	Strategic developments	8
	Demographics	8
	Supervision and regulation	8
	Results of Operations	12
	Earnings overview	12
	Net interest income	12
	Provision for credit losses	16
	Noninterest income	16
	Noninterest expense	18
	Income taxes	20
	Business Segment Results	20
	Consumer Bank	20
	Commercial Bank	21
	Financial Condition	22
	Loans and loans held for sale	23
	Securities	27
	Deposits and other sources of funds	30
	Capital	31
	Risk Management	34
	Overview	34
	Market risk management	34
	Liquidity risk management	39
	Credit risk management	40
	Operational and compliance risk management	44
	GAAP to Non-GAAP Reconciliations	46
	Critical Accounting Policies and Estimates	47
	Accounting and Reporting Developments	48
Item 3.	Quantitative and Qualitative Disclosure about Market Risk	95
Item 4.	Controls and Procedures	95
	PART II. OTHER INFORMATION	
Item 1.	Legal Proceedings	95
Item 1A.	Risk Factors	95
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	95
Item 6.	Exhibits	96
	Signature	98

PART I. FINANCIAL INFORMATION

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

Introduction

This section reviews the financial condition and results of operations of KeyCorp and its subsidiaries for the quarterly periods ended September 30, 2022, and September 30, 2021. Some tables may include additional periods to comply with disclosure requirements or to illustrate trends in greater depth. When you read this discussion, you should also refer to the consolidated financial statements and related notes in this report. The page locations of specific sections and notes that we refer to are presented in the Table of Contents.

References to our "2021 Form 10-K" refer to our Form 10-K for the year ended December 31, 2021, which has been filed with the SEC and is available on its website (www.sec.gov) and on our website (www.key.com/ir).

Terminology

Throughout this discussion, references to "Key," "we," "our," "us," and similar terms refer to the consolidated entity consisting of KeyCorp and its subsidiaries. "KeyCorp" refers solely to the parent holding company, and "KeyBank" refers to KeyCorp's subsidiary bank, KeyBank National Association.

We want to explain some industry-specific terms at the outset so you can better understand the discussion that follows.

- We use the phrase ***continuing operations*** in this document to mean all of our businesses other than our government-guaranteed and private education lending business, which has been accounted for as ***discontinued operations*** since 2009.
- We engage in ***capital markets activities*** primarily through business conducted by our Commercial Bank segment. These activities encompass a variety of products and services. Among other things, we trade securities as a dealer, enter into derivative contracts (both to accommodate clients' financing needs and to mitigate certain risks), and conduct transactions in foreign currencies (to accommodate clients' needs).
- For regulatory purposes, capital is divided into two classes. Federal regulations currently prescribe that at least one-half of a bank or BHC's ***total risk-based capital*** must qualify as ***Tier 1 capital***. Both total and Tier 1 capital serve as bases for several measures of capital adequacy, which is an important indicator of financial stability and condition. Banking regulators evaluate a component of Tier 1 capital, known as ***Common Equity Tier 1***, under the ***Regulatory Capital Rules***. The "Capital" section of this report under the heading "Capital adequacy" provides more information on total capital, Tier 1 capital, and the Regulatory Capital Rules, including Common Equity Tier 1, and describes how these measures are calculated.

The acronyms and abbreviations identified below are used in the Management's Discussion & Analysis of Financial Condition & Results of Operations as well as in the Notes to Consolidated Financial Statements (Unaudited). You may find it helpful to refer back to this page as you read this report.

ABO: Accumulated benefit obligation.
ALCO: Asset/Liability Management Committee.
ALLL: Allowance for loan and lease losses.
A/LM: Asset/liability management.
AML: Anti-money laundering.
AOCI: Accumulated other comprehensive income (loss).
APBO: Accumulated postretirement benefit obligation.
AQN Strategies: Arbitria Quum Notitia, LLC.
ARRC: Alternative Reference Rates Committee.
ASC: Accounting Standards Codification.
ASR: Accelerated share repurchase.
ASU: Accounting Standards Update.
ATMs: Automated teller machines.
BSA: Bank Secrecy Act.
BHCA: Bank Holding Company Act of 1956, as amended.
BHCs: Bank holding companies.
Board: KeyCorp Board of Directors.
CAPM: Capital Asset Pricing Model.
CARES Act: Coronavirus Aid, Relief, and Economic Security Act
CCAR: Comprehensive Capital Analysis and Review.
Cain Brothers: Cain Brothers & Company, LLC.
CECL: Current Expected Credit Losses.
CFPB: Consumer Financial Protection Bureau, also known as the Bureau of Consumer Financial Protection.
CFTC: Commodities Futures Trading Commission.
CMBS: Commercial mortgage-backed securities.
CMO: Collateralized mortgage obligation.
Common Shares: KeyCorp common shares, $1 par value.
CVA: Credit valuation adjustment.
DCF: Discounted cash flow.
DIF: Deposit Insurance Fund of the FDIC.
Dodd-Frank Act: Dodd-Frank Wall Street Reform and
DVA: Debit valuation adjustment.
Consumer Protection Act of 2010.
EAD: Exposure at default.
EBITDA: Earnings before interest, taxes, depreciation, and amortization.
EPS: Earnings per share.
ERISA: Employee Retirement Income Security Act of 1974.
ERM: Enterprise risk management.
ESG: Environmental, social, and governance.
EVE: Economic value of equity.
FASB: Financial Accounting Standards Board.
FDIA: Federal Deposit Insurance Act, as amended.
FDIC: Federal Deposit Insurance Corporation.
Federal Reserve: Board of Governors of the Federal Reserve System.
FHLB: Federal Home Loan Bank of Cincinnati.
FHLMC: Federal Home Loan Mortgage Corporation.
FICO: Fair Isaac Corporation.
FINRA: Financial Industry Regulatory Authority.
First Niagara: First Niagara Financial Group, Inc.
FNMA: Federal National Mortgage Association.
FSOC: Financial Stability Oversight Council.
FVA: Fair value of employee benefit plan assets.
GAAP: U.S. generally accepted accounting principles.
GNMA: Government National Mortgage Association.
HTC: Historic tax credit.
IRS: Internal Revenue Service.
ISDA: International Swaps and Derivatives Association.
KBCM: KeyBanc Capital Markets, Inc.
KCC: Key Capital Corporation.
KCDC: Key Community Development Corporation.
KCIC: Key Community Investment Capital LLC.
KEF: Key Equipment Finance.
LCR: Liquidity coverage ratio.
LGD: Loss given default.
LIBOR: London Interbank Offered Rate.
LIHTC: Low-income housing tax credit.
LTV: Loan-to-value.
Moody's: Moody's Investor Services, Inc.
MRM: Market Risk Management group.
MRC: Market Risk Committee.
N/A: Not applicable.
NAV: Net asset value.
NFA: National Futures Association.
N/M: Not meaningful.
NMTC: New market tax credit.
NOW: Negotiable Order of Withdrawal.
NPR: Notice of proposed rulemaking.
NSF: Non-sufficient funds.
NYSE: New York Stock Exchange.
OCC: Office of the Comptroller of the Currency.
OCI: Other comprehensive income (loss).
OREO: Other real estate owned.
PBO: Projected benefit obligation.
PCCR: Purchased credit card relationship.
PCD: Purchased credit deteriorated.
PD: Probability of default.
PPP: Paycheck Protection Program.
RMBS: Residential mortgage-backed securities.
S&P: Standard and Poor's Ratings Services, a Division of The McGraw-Hill Companies, Inc.
SEC: U.S. Securities & Exchange Commission.
SIFIs: Systemically important financial institutions, including large, interconnected BHCs and nonbank financial companies designated by FSOC for supervision by the Federal Reserve.
SOFR: Secured Overnight Financing Rate.
TDR: Troubled debt restructuring.
TE: Taxable-equivalent.
U.S. Treasury: United States Department of the Treasury.
VaR: Value at risk.
VEBA: Voluntary Employee Beneficiary Association.
VIE: Variable interest entity.

Forward-looking statements

From time to time, we have made or will make forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements do not relate strictly to historical or current facts. Forward-looking statements usually can be identified by the use of words such as "goal," "objective," "plan," "expect," "assume," "anticipate," "intend," "project," "believe," "estimate," "will," "would," "should," "could," or other words of similar meaning. Forward-looking statements provide our current expectations or forecasts of future events, circumstances, results or aspirations. Our disclosures in this report contain forward-looking statements. We may also make forward-looking statements in other documents filed with or furnished to the SEC. In addition, we may make forward-looking statements orally to analysts, investors, representatives of the media, and others.

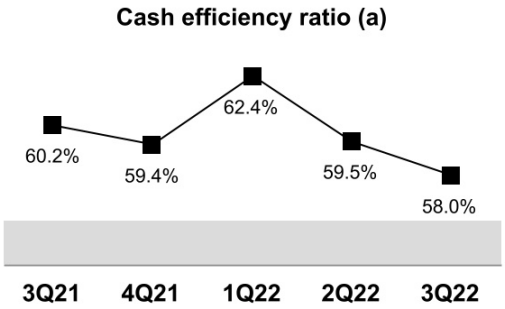
Forward-looking statements, by their nature, are subject to assumptions, risks, and uncertainties, many of which are outside of our control. Our actual results may differ materially from those set forth in our forward-looking statements.

There is no assurance that any list of risks and uncertainties or risk factors is complete. Factors that could cause our actual results to differ from those described in forward-looking statements include, but are not limited to:

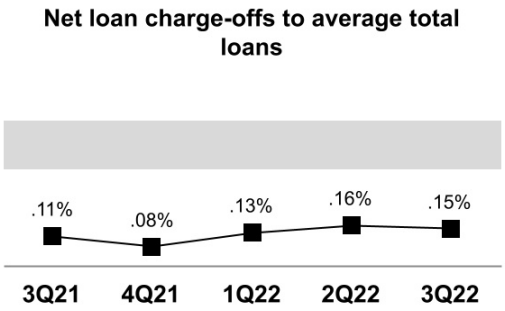
- our concentrated credit exposure in commercial and industrial loans;
- deterioration of commercial real estate market fundamentals;
- defaults by our loan counterparties or clients;
- adverse changes in credit quality trends;
- declining asset prices;
- deterioration of asset quality and an increase in credit losses due to the continued impact of the COVID-19 global pandemic, including any of the related variants;
- labor shortages and supply chain constraints;
- the extensive regulation of the U.S. financial services industry;
- changes in accounting policies, standards, and interpretations;
- operational or risk management failures by us or critical third parties;
- breaches of security or failure or unavailability of our technology systems due to technological or other factors and cybersecurity threats;
- negative outcomes from claims or litigation;
- failure or circumvention of our controls and procedures;
- the occurrence of natural disasters, which may be exacerbated by climate change;
- societal responses to climate change;
- increased operational risks resulting from the COVID-19 global pandemic, including any of the related variants;
- evolving capital and liquidity standards under applicable regulatory rules;
- disruption of the U.S. financial system;
- our ability to receive dividends from our subsidiaries, including KeyBank;
- unanticipated changes in our liquidity position, including but not limited to, changes in our access to or the cost of funding and our ability to secure alternative funding sources;
- downgrades in our credit ratings or those of KeyBank;
- uncertainty in markets due to the COVID-19 global pandemic, including any of the related variants;
- a worsening of the U.S. economy due to financial, political or other shocks;
- our ability to anticipate interest rate changes and manage interest rate risk;
- uncertainty surrounding the transition from LIBOR to an alternate reference rate;
- deterioration of economic conditions in the geographic regions where we operate;
- the soundness of other financial institutions;
- our ability to manage our reputational risks;
- our ability to timely and effectively implement our strategic initiatives;
- increased competitive pressure;
- our ability to adapt our products and services to industry standards and consumer preferences;
- our ability to attract and retain talented executives and employees;
- unanticipated adverse effects of strategic partnerships or acquisitions and dispositions of assets or businesses; and
- our ability to develop and effectively use the quantitative models we rely upon in our business planning.

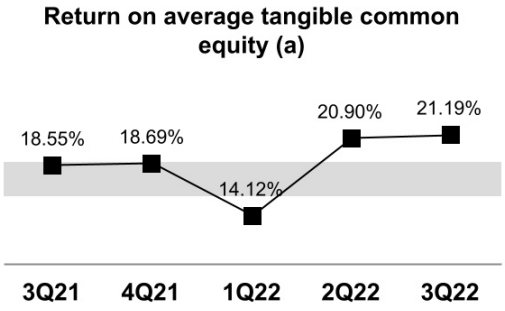
Any forward-looking statements made by us or on our behalf speak only as of the date they are made, and we do not undertake any obligation to update any forward-looking statement to reflect the impact of subsequent events or circumstances, except as required by applicable securities laws. Before making an investment decision, you should carefully consider all risks and uncertainties disclosed in our 2021 Form 10-K and any subsequent reports filed with the SEC by Key, as well as our registration statements under the Securities Act of 1933, as amended, all of which are or will upon filing be accessible on the SEC's website at www.sec.gov and on our website at www.key.com/ir.

Long-term financial targets



(a) See the section entitled "GAAP to Non-GAAP Reconciliations," which presents the computations of certain financial measures related to "cash efficiency." The section includes tables that reconcile the GAAP performance measures to the corresponding non-GAAP measures, which provides a basis for period-to-period comparisons.





(a) See the section entitled "GAAP to Non-GAAP Reconciliations," which presents the computations of certain financial measures related to "tangible common equity." The section includes tables that reconcile the GAAP performance measures to the corresponding non-GAAP measures, which provides a basis for period-to-period comparisons.

Positive Operating Leverage

Generate positive operating leverage and a cash efficiency ratio in the range of 54.0% to 56.0%.

We achieved positive operating leverage for the quarter. Revenues were up 5% quarter over quarter driven by growth in net interest income, reflecting strong loan growth. We've exercised disciplined expense management with current levels reflecting seasonal staffing as well as investments for future growth.

Moderate Risk Profile

Maintain a moderate risk profile by targeting a net loan charge-offs to average loans ratio in the range of .40% to .60% through a credit cycle.

We believe our strong risk management practices and disciplined underwriting continue to strengthen our credit quality. Net charge-offs to average loans remain at low levels, and we continue to see lower nonperforming loan levels.

Financial Return

A return on average tangible common equity in the range of 16.0% to 19.0%.

We remain committed to our stated priorities of supporting organic growth, increasing dividends, and prudently repurchasing Common Shares. During the third quarter of 2022, the Board declared a dividend of $.195 per Common Share.

Strategic developments

Our actions and results during the third quarter of 2022 support our corporate strategy described in the "Introduction" section under the "Corporate strategy" heading on page 47 of our 2021 Form 10-K.

- We ***continued the momentum*** of loan growth across both our consumer and commercial businesses as we continue to add clients and deepen our existing relationships.
- In the third quarter, we implemented new ***client-friendly*** fee terms, eliminating NSF fees and introducing Key Coverage Zone ™ for overdraft fees.
- We continued to ***expand targeted client relationships*** in healthcare, growing relationships with nurses and significant healthcare providers.
- Our ***strong capital position*** allows us to continue to execute against each of our capital priorities of organic growth, dividends, and share repurchases. During the third quarter, the Board of Directors announced a Common Share dividend of $.195 per Common Share.

Demographics

The Consumer Bank serves individuals and small businesses throughout our 15-state branch footprint as well as healthcare professionals nationally through our Laurel Road digital brand by offering a variety of deposit and investment products, personal finance and financial wellness services, lending, student loan refinancing, mortgage and home equity, credit card, treasury services, and business advisory services. In addition, wealth management and investment services are offered to assist non-profit and high-net-worth clients with their banking, trust, portfolio management, life insurance, charitable giving, and related needs.

The Commercial Bank consists of the Commercial and Institutional operating segments. The Commercial operating segment is a full-service, commercial banking platform that focuses primarily on serving the borrowing, cash management, and capital markets needs of middle market clients within Key's 15-state branch footprint. It is also a significant, national, commercial real estate lender and third-party servicer of commercial mortgage loans and special servicer of CMBS. The Institutional operating segment operates nationally in providing lending, equipment financing, and banking products and services to large corporate and institutional clients. The industry coverage and product teams have established expertise in the following sectors: Consumer, Energy, Healthcare, Industrial, Public Sector, Real Estate, and Technology. The operating segment includes the KBCM platform which provides a broad suite of capital markets products and services including syndicated finance, debt and equity capital markets, derivatives, foreign exchange, financial advisory, and public finance. Additionally, KBCM provides fixed income and equity sales and trading services to investor clients.

Supervision and regulation

The following discussion provides a summary of recent regulatory developments and should be read in conjunction with the disclosure included in our 2021 Form 10-K under the heading "Supervision and Regulation" in Item 1. Business and under the heading "II. Compliance Risk" in Item 1A. Risk Factors.

Regulatory capital requirements

KeyCorp and KeyBank are subject to regulatory capital requirements that are based largely on the Basel III international capital framework ("Basel III"). The Basel III capital framework and the U.S. implementation of the Basel III capital framework ("Regulatory Capital Rules") are discussed in more detail in Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation — Regulatory capital requirements."

Under the Regulatory Capital Rules, standardized approach banking organizations, such as KeyCorp and KeyBank, are required to meet the minimum capital and leverage ratios set forth in Figure 1 below. At September 30, 2022, KeyCorp's ratios under the fully phased-in Regulatory Capital Rules are set forth in Figure 1.

Figure 1. Minimum Capital Ratios and KeyCorp Ratios Under the Regulatory Capital Rules

Ratios (including stress capital buffer)	Regulatory Minimum Requirement	Stress Capital Buffer [b]	Regulatory Minimum With Stress Capital Buffer	KeyCorp September 30, 2022 [c]
Common Equity Tier 1	4.5 %	2.5 %	7.0 %	9.1 %
Tier 1 Capital	6.0	2.5	8.5	10.7
Total Capital	8.0	2.5	10.5	12.7
Leverage [a]	4.0	N/A	4.0	8.9

(a) As a standardized approach banking organization, KeyCorp is not subject to the 3% supplemental leverage ratio requirement, which became effective January 1, 2018.
(b) Stress capital buffer must consist of Common Equity Tier 1 capital. As a standardized approach banking organization, KeyCorp is not subject to the countercyclical capital buffer of up to 2.5% imposed upon an advanced approaches banking organization under the Regulatory Capital Rules.
(c) Ratios reflect the five-year transition of CECL impacts on regulatory ratios.

Revised prompt corrective action framework

The federal prompt corrective action ("PCA") framework under the FDIA groups FDIC-insured depository institutions into one of five prompt corrective action capital categories: "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized," and "critically undercapitalized." In addition to implementing the Basel III capital framework in the United States, the Regulatory Capital Rules also revised the PCA capital category threshold ratios applicable to FDIC-insured depository institutions such as KeyBank, with an effective date of January 1, 2015. The revised PCA framework table in Figure 2 identifies the capital category thresholds for a "well capitalized" and an "adequately capitalized" institution under the PCA Framework.

Figure 2. "Well Capitalized" and "Adequately Capitalized" Capital Category Ratios under Revised PCA Framework

Prompt Corrective Action	Capital Category	
Ratio	Well Capitalized [a]	Adequately Capitalized
Common Equity Tier 1 Risk-Based	6.5 %	4.5 %
Tier 1 Risk-Based	8.0	6.0
Total Risk-Based	10.0	8.0
Tier 1 Leverage [b]	5.0	4.0

(a) A "well capitalized" institution also must not be subject to any written agreement, order, or directive to meet and maintain a specific capital level for any capital measure.
(b) As a "standardized approach" banking organization, KeyBank is not subject to the 3% supplemental leverage ratio requirement, which became effective January 1, 2018.

As of September 30, 2022, KeyBank (consolidated) satisfied the risk-based and leverage capital requirements necessary to be considered "well capitalized" for purposes of the PCA framework. However, investors should not regard this determination as a representation of the overall financial condition or prospects of KeyBank because the PCA framework is intended to serve a limited supervisory function. Moreover, it is important to note that the PCA framework does not apply to BHCs, like KeyCorp.

Capital planning and stress testing

On June 23, 2022, the Federal Reserve announced the results of the supervisory stress test that it conducted of 34 BHCs having more than $100 billion in total consolidated assets (including KeyCorp). The Federal Reserve indicated that all BHCs subject to the stress test maintained capital ratios above the minimum required levels under the severely adverse scenario. The stress test results for individual BHCs will be used to determine a BHC's stress capital buffer requirement, which became effective on October 1, 2022, and will remain in effect until September 30, 2023, unless the firm later receives an updated stress capital buffer requirement from the Federal Reserve. On August 4, 2022, the Federal Reserve confirmed that KeyCorp's required stress capital buffer, based on its June 2022 stress test, is 2.5%, which is the minimum buffer required for banking organizations the size of KeyCorp.

See Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation - Regulatory capital requirements - Capital planning and stress testing" for a discussion of other recent developments concerning capital planning and stress testing requirements.

Liquidity requirements

See Item. 1 Business of our 2021 Form 10-K under the heading "Supervision and Regulation - Regulatory capital requirements - Liquidity requirements" for a discussion of liquidity requirements, including the Liquidity Coverage Rules.

Deposit insurance and assessments

On October 18, 2022, the FDIC adopted a final rule, applicable to all insured depository institutions to increase the initial base deposit insurance assessment rate schedules uniformly by two basis points consistent with the Amended Restoration Plan approved by the FDIC on June 21, 2022. The FDIC indicated that it was taking this action in order to restore the DIF reserve ratio to the required statutory minimum of 1.35% by the statutory deadline of September 30, 2028. The FDIC said that the reserve ratio had declined below this level because of the increase in insured deposits since the start of the pandemic and other factors that affect the level of the DIF. Under the final rule, the increase in rates will begin with the first quarterly assessment period of 2023 and will remain in effect unless and until the reserve ratio meets or exceeds 2% in order to support growth in the DIF in progressing toward the FDIC's long-term goal of a 2% reserve ratio. The increase in assessment rates will apply to KeyBank.

See Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation – FDIA, Resolution Authority and Financial Stability" for a discussion of other recent developments concerning deposit insurance and assessments.

Resolution plans

On October 14, 2022 and October 18, 2022, the Federal Reserve and the FDIC issued an advance notice of proposed rulemaking ("ANPR") requesting public comment on the potential adoption of new resolution-related resource requirements for large banking organizations that are not global systemically important BHCs ("GSIBs"). The new requirements would potentially include a long-term debt requirement that would provide an extra layer of loss-absorbing capacity, a clean-holding company requirement (prohibiting certain financial arrangements such as short-term borrowings or derivatives), and a requirement for the identification of separability options in the context of recovery or resolution. The Federal Reserve and the FDIC stated that large banking organizations for this purpose are those banking organizations that have $100 billion or more in total consolidated assets and are not GSIBs but indicated that the focus of this ANPR was on Category II and Category III banking organizations, which are banking organizations with $250 billion or more in total consolidated assets or that meet certain risk-based criteria. KeyCorp is a Category IV banking organization and would not be subject to the potential new requirements unless they are extended to Category IV banking organizations. Comments on the ANPR are due 60 days after publication in the Federal Register.

See Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation - FDIA, Resolution Authority and Financial Stability" for a discussion of other recent developments concerning resolution plans.

Volcker Rule

The Volcker Rule is discussed in detail in Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation - Other Regulatory Developments - Volcker Rule."

Community Reinvestment Act

See Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation - Other Regulatory Developments - Community Reinvestment Act" for a discussion of other recent developments concerning the CRA.

Supervision and governance

See Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation - Other Regulatory Developments - Supervision and governance" for a discussion of other recent supervision and governance-related developments, including a discussion of the LFI Rating System.

Regulatory developments concerning COVID-19

See Item 1. Business of our 2021 Form 10-K under the heading "Supervision and Regulation - Other Regulatory Developments - Regulatory developments concerning COVID-19" for a discussion of other recent regulatory developments relating to the COVID-19 pandemic.

Federal LIBOR transition legislation

On March 15, 2022, President Biden signed into law the Consolidated Appropriations Act, 2022, which contains the Adjustable Interest Rate (LIBOR) Act (the "LIBOR Act"). The LIBOR Act addresses certain issues relating to the transition from the use of LIBOR as a benchmark reference rate in contracts to the use of alternate reference rates. Among other things, the LIBOR Act (i) provides for the replacement, by operation of law, of LIBOR with a SOFR-based reference rate selected by the Federal Reserve for contracts which do not have effective fallback language; (ii) authorizes persons who have discretionary authority for selecting a LIBOR replacement to opt into a statutory safe harbor from liability by selecting the benchmark identified by the Federal Reserve; (iii) states that parties to a contract may opt out of the LIBOR Act; and (iv) provides that no federal supervisory agency may take supervisory action against a bank solely because the bank uses a benchmark rate other than SOFR. The LIBOR Act directs the Federal Reserve to promulgate regulations to implement this legislation by 180 days after the date of enactment.

On July 19, 2022, the Federal Reserve issued for public comment a proposed rule to implement the LIBOR Act. The proposed rule would establish Federal Reserve-selected benchmark replacements for contracts governed by federal or state law that use LIBOR as a benchmark reference rate but do not provide for a clearly defined or practicable replacement after June 30, 2023, when LIBOR will no longer be available in its current form. The proposal identifies separate Federal Reserve-selected replacement rates for derivative transactions, consumer loans, contracts where a government sponsored enterprise is a party, and all other affected contracts. Consistent with the LIBOR Act, each proposed replacement rate would be based on SOFR and would incorporate spread adjustments for each specified tenor of LIBOR. The proposed rule would also define various terms and provide clarification of certain provisions of the LIBOR Act. In addition to asking for comment on all aspects of the proposed rule, the Federal Reserve asked for comment on a series of questions related to the proposal. Comments on the proposal were due by August 29, 2022, and we are awaiting the final rulemaking.

Developments relating to climate change

On December 16, 2021, the OCC issued draft principles designed to provide a high-level framework for the safe and sound management of exposures to climate-related financial risks by national banks with more than $100 billion in total consolidated assets. The draft principles support efforts by banks to identify, measure, monitor, and mitigate the risks associated with climate change and encourage banks to incorporate consideration of climate-related financial risks into, among other things, strategic planning, credit underwriting, internal reporting, policies, procedures, and limits. The OCC requested public feedback on its draft principles by February 14, 2022, and said that it planned to elaborate on these principles in subsequent guidance that would distinguish roles and responsibilities of boards of directors and management, incorporate the feedback it receives, and consider lessons learned and best practices from the industry and other jurisdictions. Final principles or other guidance from the OCC regarding climate-related risk management would apply to KeyBank.

On March 21, 2022, the SEC issued for public comment a proposal to amend its rules under the Securities Act of 1933 and the Securities Exchange Act of 1934 to require public companies (including KeyCorp) to provide detailed climate-related information in their registration statements and periodic reports. Among other things, the proposal would require public companies to disclose information about (i) climate-related risks that are reasonably likely to have a material impact on the company's business or financial statements over the short-, medium- or long-term; (ii) the actual and potential impacts of such risks on the company's strategy, business model, and outlook; (iii) the role of the board of directors in overseeing climate-related risks and management's role in assessing and managing such risks; (iv) the impact of climate-related events and transitional activities on line items in the company's consolidated financial statements as well as the financial estimates and assumptions used in the financial statements; and (v) the company's direct greenhouse gas emissions, indirect emissions from purchased energy, and, if material, indirect emissions from the company's value chain (which may include financed emissions in a bank's loan portfolio). The financial services industry has not yet adopted a standardized methodology for banks to use to quantitatively measure indirect emissions from a bank's value chain, such as financed emissions. Accordingly, this proposal would require many banks to quantify and disclose financed emissions on a comprehensive scale for the first time. Comments on the SEC's proposal were originally due by May 20, 2022. The comment period was extended to June 17, 2022. On October 7, 2022, the SEC reopened the comment period on this proposal until November 1, 2022, due to a technological error that resulted in a number of public comments submitted through the SEC's comment website not being received by the SEC.

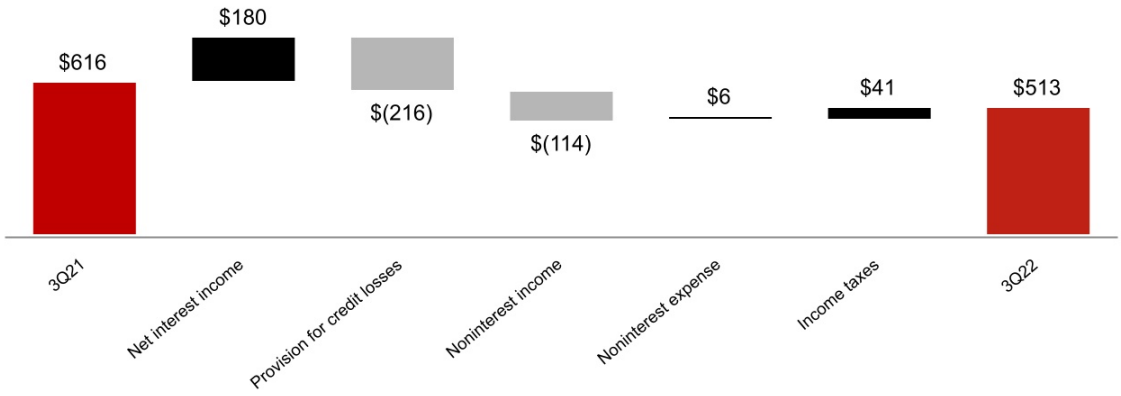
Computer-Security Incident Notification Requirements

On November 23, 2021, the federal banking agencies published a final rule that establishes computer-security incident notification requirements for banking organizations (including banks and BHCs) and bank service providers. The final rule requires a banking organization to notify its primary federal regulator as soon as possible and no later than 36 hours after the banking organization determines that a computer-security incident that rises to the level of a notification incident has occurred. A notification incident includes, among other things, a computer-security incident that materially disrupts or degrades, or is reasonable likely to materially disrupt or degrade, a banking organization's operations or activities or its ability to deliver products or services to a material portion of its customer base. The final rule also requires a bank service provider to notify a banking organization of certain material disruptions in services provided to the banking organization. The final rule became effective on April 1, 2022, and has a compliance date of May 1, 2022. The final rule applies to KeyBank and KeyCorp.

Results of Operations

Earnings overview

The following chart provides a reconciliation of net income from continuing operations attributable to Key common shareholders for the three months ended September 30, 2021, to the three months ended September 30, 2022 (dollars in millions):



Net interest income

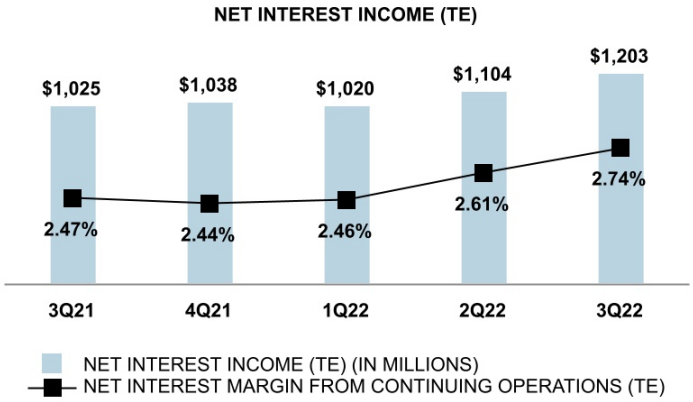
One of our principal sources of revenue is net interest income. Net interest income is the difference between interest income received on earning assets (such as loans and securities) and loan-related fee income, and interest expense paid on deposits and borrowings. There are several factors that affect net interest income, including:

- the volume, pricing, mix, and maturity of earning assets and interest-bearing liabilities;
- the volume and value of net free funds, such as noninterest-bearing deposits and equity capital;
- the use of derivative instruments to manage interest rate risk;
- interest rate fluctuations and competitive conditions within the marketplace;
- asset quality; and
- fair value accounting of acquired earning assets and interest-bearing liabilities.

To make it easier to compare both the results across several periods and the yields on various types of earning assets (some taxable, some not), we present net interest income in this discussion on a "TE basis" (i.e., as if all income were taxable and at the same rate). For example, $100 of tax-exempt income would be presented as $126, an amount that, if taxed at the statutory federal income tax rate of 21%, would yield $100.

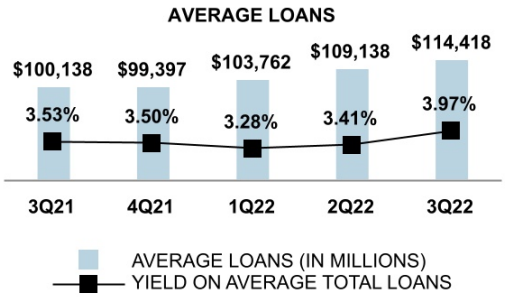
Figure 3 shows the various components of our balance sheet that affect interest income and expense and their respective yields or rates for the current periods and comparative year ago periods. This figure also presents a

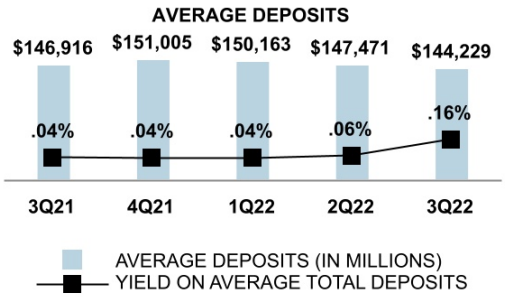
reconciliation of TE net interest income to net interest income reported in accordance with GAAP for each of those quarters. The net interest margin, which is an indicator of the profitability of the earning assets portfolio less cost of funding, is calculated by dividing annualized TE net interest income by average earning assets.



Net interest income (TE) was $1.2 billion for the third quarter of 2022 and the net interest margin was 2.74%. Compared to the third quarter of 2021, net interest income (TE) increased $178 million and net interest margin increased by 27 basis points. Net interest income (TE) benefited from higher earning asset balances, a favorable balance sheet mix, and higher interest rates. Net interest income (TE) and the net interest margin were negatively impacted by the sale of the indirect auto loan portfolio in the third quarter of 2021, higher interest-bearing deposit costs, and lower loan fees from the PPP.

For the nine months ended September 30, 2022, net interest income (TE) increased $267 million from the same period last year and net interest margin increased by seven basis points. Net interest income (TE) benefited from higher earning asset balances, higher interest rates, and a favorable balance sheet mix. Net interest income (TE) and the net interest margin were negatively impacted by higher interest-bearing deposit costs, the sale of the indirect auto loan portfolio in the third quarter of 2021, and lower loan fees from the PPP.





Average loans were $114.4 billion for the third quarter of 2022, an increase of $14.3 billion compared to the third quarter of 2021. Commercial loans increased $9.1 billion, reflecting core commercial and industrial loan growth, which mitigated the impact of a $4.0 billion decline in PPP balances, and an increase in commercial mortgage real estate loans. Consumer loans increased $5.2 billion, largely driven by Key's consumer mortgage business and Laurel Road, partly offset by the sale of the indirect auto loan portfolio in the third quarter of 2021.

Average deposits totaled $144.2 billion for the third quarter of 2022, a decrease of $2.7 billion compared to the year-ago quarter. The decrease reflects declines in non-operating commercial deposit balances, partially offset by an increase in retail deposits.

Figure 3. Consolidated Average Balance Sheets, Net Interest Income, and Yields/Rates and Components of Net Interest Income Changes from Continuing Operations[h]

	Three months ended September 30, 2022			Three months ended September 30, 2021			Change in Net interest income due to		
Dollars in millions	Average Balance	Interest [a]	Yield/ Rate [a]	Average Balance	Interest [a]	Yield/ Rate [a]	Volume	Yield/Rate	Total
ASSETS									
Loans [b], [c]									
Commercial and industrial [d]	$ 56,151	$ 578	4.09 %	$ 49,868	$ 445	3.54 %	$ 60	$ 73	$ 133
Real estate — commercial mortgage	16,002	168	4.18	13,306	120	3.56	27	21	48
Real estate — construction	2,306	27	4.58	2,134	19	3.53	2	6	8
Commercial lease financing	3,892	25	2.58	3,922	27	2.80	—	(2)	(2)
Total commercial loans	78,351	798	4.05	69,230	611	3.50	89	98	187
Real estate — residential mortgage	20,256	152	3.00	13,168	92	2.78	53	7	60
Home equity loans	8,024	91	4.51	8,894	84	3.75	(9)	16	7
Consumer direct loans	6,766	72	4.25	5,175	59	4.55	17	(4)	13
Credit cards	969	28	11.63	917	23	10.07	1	4	5
Consumer indirect loans	52	—	—	2,754	22	3.15	(11)	(11)	(22)
Total consumer loans	36,067	343	3.80	30,908	280	3.60	51	12	63
Total loans	114,418	1,141	3.97	100,138	891	3.53	140	110	250
Loans held for sale	1,102	14	5.22	1,447	13	3.66	(4)	5	1
Securities available for sale [b], [e]	42,271	196	1.69	36,923	135	1.48	21	40	61
Held-to-maturity securities [b]	7,933	55	2.79	6,507	43	2.66	10	2	12
Trading account assets	841	8	3.65	743	4	2.19	1	3	4
Short-term investments	3,043	32	4.13	19,274	9	.18	(14)	37	23
Other investments [e]	1,054	5	1.78	614	1	.99	1	3	4
Total earning assets	170,662	1,451	3.30	165,646	1,096	2.64	155	200	355
Allowance for loan and lease losses	(1,099)			(1,222)					
Accrued income and other assets	18,629			16,947					
Discontinued assets	478			618					
Total assets	$ 188,670			$ 181,989					
LIABILITIES									
NOW and money market deposit accounts	$ 83,050	50	.24	$ 85,333	10	.05	—	40	40
Savings deposits	7,904	—	.01	7,117	—	.01	—	—	—
Certificates of deposit ($100,000 or more)	1,347	2	.47	1,975	3	.59	(1)	—	(1)
Other time deposits	2,713	7	.97	2,404	2	.26	—	5	5
Total interest-bearing deposits	95,014	59	.25	96,829	15	.06	(1)	45	44
Federal funds purchased and securities sold under repurchase agreements	3,562	19	2.10	231	—	.02	—	19	19
Bank notes and other short-term borrowings	3,725	24	2.53	671	2	1.11	18	4	22
Long-term debt [f], [g]	17,704	146	3.32	12,601	54	1.73	28	64	92
Total interest-bearing liabilities	120,005	248	.82	110,332	71	.26	45	132	177
Noninterest-bearing deposits	49,215			50,087					
Accrued expense and other liabilities	4,358			3,053					
Discontinued liabilities [g]	478			618					
Total liabilities	174,056			164,090					
EQUITY									
Key shareholders' equity	14,614			17,899					
Noncontrolling interests	—			—					
Total equity	14,614			17,899					
Total liabilities and equity	$ 188,670			$ 181,989					
Interest rate spread (TE)			2.48 %			2.38 %			
Net interest income (TE) and net interest margin (TE)		1,203	2.74 %		1,025	2.47 %	$ 110	$ 68	178
TE adjustment [b]		7			9				
Net interest income, GAAP basis		$ 1,196			$ 1,016				

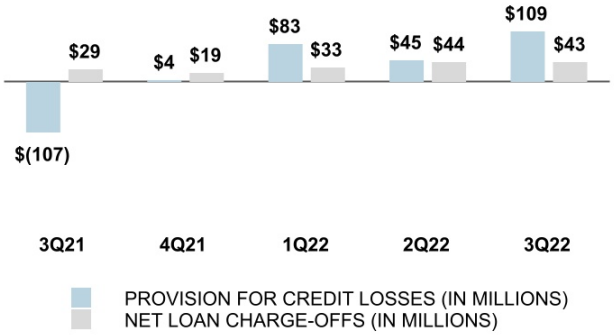
(a) Results are from continuing operations. Interest excludes the interest associated with the liabilities referred to in (g), calculated using a matched funds transfer pricing methodology.
(b) Interest income on tax-exempt securities and loans has been adjusted to a taxable-equivalent basis using the statutory federal income tax rate of 21% for the three months ended September 30, 2022, and September 30, 2021.
(c) For purposes of these computations, nonaccrual loans are included in average loan balances.
(d) Commercial and industrial average balances include $162 million and $137 million of assets from commercial credit cards for the three months ended September 30, 2022, and September 30, 2021, respectively.
(e) Yield is calculated on the basis of amortized cost.
(f) Rate calculation excludes basis adjustments related to fair value hedges.
(g) A portion of long-term debt and the related interest expense is allocated to discontinued liabilities as a result of applying our matched funds transfer pricing methodology to discontinued operations.
(h) Average balances presented are based on daily average balances over the respective stated period.

Figure 3. Consolidated Average Balance Sheets, Net Interest Income, and Yields/Rates and Components of Net Interest Income Changes from Continuing Operations[h]

	Nine months ended September 30, 2022			Nine months ended September 30, 2021			Change in Net interest income due to		
Dollars in millions	Average Balance	Interest [a]	Yield/ Rate [a]	Average Balance	Interest [a]	Yield/ Rate [a]	Volume	Yield/Rate	Total
ASSETS									
Loans [b], [c]									
Commercial and industrial [d]	$ 53,878	$ 1,437	3.57 %	$ 51,410	$ 1,347	3.50 %	$ 66	$ 24	$ 90
Real estate — commercial mortgage	15,278	425	3.72	12,932	351	3.63	65	9	74
Real estate — construction	2,154	64	3.95	2,111	58	3.65	1	5	6
Commercial lease financing	3,883	72	2.48	4,041	89	2.93	(3)	(14)	(17)
Total commercial loans	75,193	1,998	3.55	70,494	1,845	3.50	129	24	153
Real estate — residential mortgage	18,331	395	2.87	11,320	246	2.89	151	(2)	149
Home equity loans	8,191	244	3.98	9,089	257	3.78	(26)	13	(13)
Consumer direct loans	6,414	201	4.20	4,969	173	4.65	47	(19)	28
Credit cards	948	76	10.75	919	69	10.10	2	5	7
Consumer indirect loans	67	—	—	3,771	91	3.22	(45)	(46)	(91)
Total consumer loans	33,951	916	3.60	30,068	836	3.71	129	(49)	80
Total loans	109,144	2,914	3.57	100,562	2,681	3.56	258	(25)	233
Loans held for sale	1,230	36	3.94	1,531	35	3.03	(8)	9	1
Securities available for sale [b], [e]	43,396	557	1.60	33,553	398	1.60	124	35	159
Held-to-maturity securities [b]	7,473	149	2.66	6,713	133	2.64	15	1	16
Trading account assets	846	21	3.28	809	14	2.30	1	6	7
Short-term investments	4,636	49	1.42	18,211	20	.15	(25)	54	29
Other investments [e]	836	11	1.80	616	5	1.14	2	4	6
Total earning assets	167,561	3,737	2.92	161,995	3,286	2.71	367	84	451
Allowance for loan and lease losses	(1,087)			(1,427)					
Accrued income and other assets	18,315			16,626					
Discontinued assets	507			651					
Total assets	$ 185,296			$ 177,845					
LIABILITIES									
NOW and money market deposit accounts	$ 85,632	79	.12	$ 83,599	30	.05	1	48	49
Savings deposits	7,799	1	.01	6,730	1	.02	—	—	—
Certificates of deposit ($100,000 or more)	1,490	5	.45	2,250	13	.77	(4)	(4)	(8)
Other time deposits	2,263	8	.48	2,644	8	.41	(1)	1	—
Total interest-bearing deposits	97,184	93	.13	95,223	52	.07	(4)	45	41
Federal funds purchased and securities sold under repurchase agreements	2,226	25	1.51	242	—	.03	—	25	25
Bank notes and other short-term borrowings	2,135	36	2.24	764	6	.96	18	12	30
Long-term debt [f], [g]	13,757	256	2.49	12,469	168	1.80	19	69	88
Total interest-bearing liabilities	115,302	410	.48	108,698	226	.28	33	151	184
Noninterest-bearing deposits	50,082			47,800					
Accrued expense and other liabilities	4,149			2,853					
Discontinued liabilities [g]	507			651					
Total liabilities	170,040			160,002					
EQUITY									
Key shareholders' equity	15,256			17,843					
Noncontrolling interests	—			—					
Total equity	15,256			17,843					
Total liabilities and equity	$ 185,296			$ 177,845					
Interest rate spread (TE)			2.45 %			2.44 %			
Net interest income (TE) and net interest margin (TE)		3,327	2.60 %		3,060	2.53 %	$ 334	$ (67)	$ 267
TE adjustment [b]		20			22				
Net interest income, GAAP basis		$ 3,307			$ 3,038				

(a) Results are from continuing operations. Interest excludes the interest associated with the liabilities referred to in (g) below, calculated using a matched funds transfer pricing methodology.
(b) Interest income on tax-exempt securities and loans has been adjusted to a taxable-equivalent basis using the statutory federal income tax rate of 21% for both the nine months ended September 30, 2022, and September 30, 2021.
(c) For purposes of these computations, nonaccrual loans are included in average loan balances.
(d) Commercial and industrial average balances include $152 million and $131 million of assets from commercial credit cards for the nine months ended September 30, 2022, and September 30, 2021, respectively.
(e) Yield is calculated on the basis of amortized cost.
(f) Rate calculation excludes basis adjustments related to fair value hedges.
(g) A portion of long-term debt and the related interest expense is allocated to discontinued liabilities as a result of applying Key's matched funds transfer pricing methodology to discontinued operations.
(h) Average balances presented are based on daily average balances over the respective stated period.

Provision for credit losses



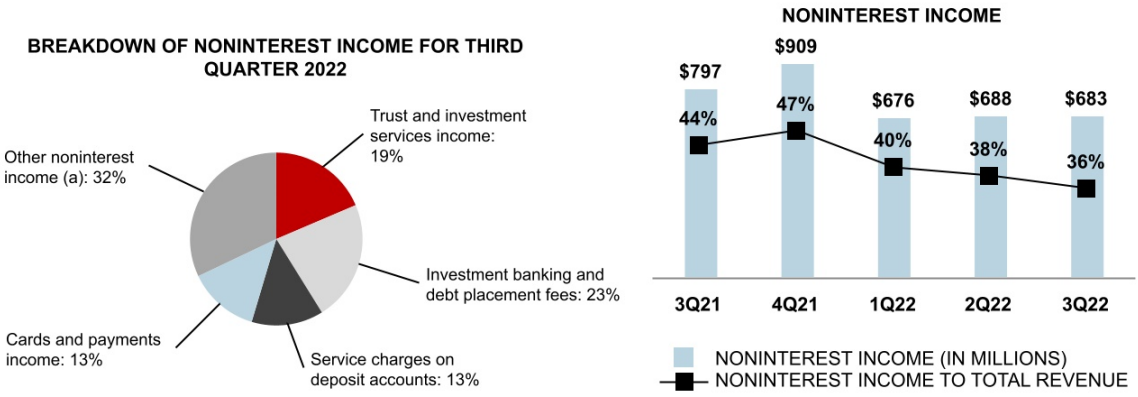
Key's provision for credit losses was $109 million for the three months ended September 30, 2022, compared to a net benefit of $107 million for the three months ended September 30, 2021. The provision for credit losses was $237 million for the nine months ended September 30, 2022, compared to a net benefit of $422 million for the nine months ended September 30, 2021. The increase reflects the impact of a reserve release in each respective year-ago period as uncertainty caused by the pandemic subsided as well as changes in the economic outlook.

Noninterest income

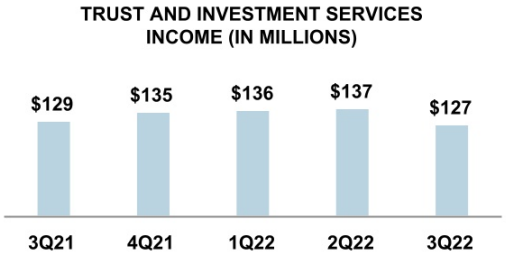
As shown in Figure 4, noninterest income was $683 million, and represented 36% of total revenue for the third quarter of 2022, compared to $797 million, representing 44% of total revenue, for the year-ago quarter. Noninterest income was $2.0 billion for the nine months ended September 30, 2022, compared to $2.3 billion for the nine months ended September 30, 2021.

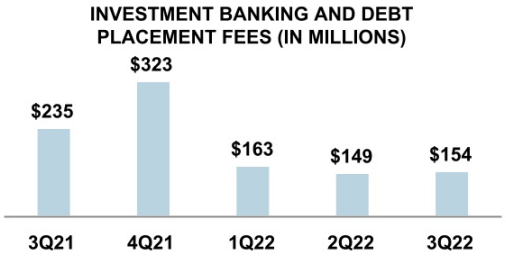
The following discussion explains the composition of certain elements of our noninterest income and the factors that caused those elements to change.

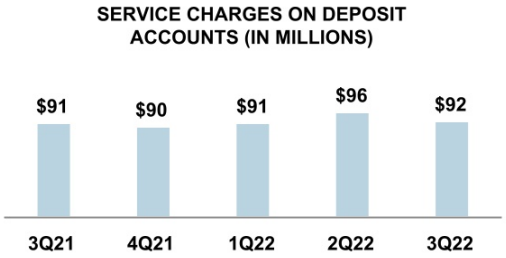
Figure 4. Noninterest Income

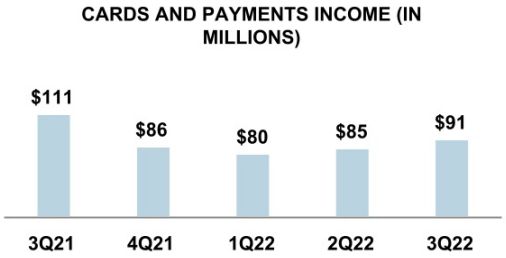


(a) Other noninterest income includes operating lease income and other leasing gains, corporate services income, corporate-owned life insurance income, consumer mortgage income, commercial mortgage servicing fees, and other income. See the "Consolidated Statements of Income" in Item 1. Financial Statements of this report.









Trust and investment services income

Trust and investment services income consists of brokerage commissions, trust and asset management fees, and insurance income. The assets under management that primarily generate certain trust and asset management fees are shown in Figure 5. For the three months ended September 30, 2022, trust and investment services income was down $2 million, or 1.6%, compared to the same period one year ago. For the nine months ended September 30, 2022, trust and investment services income was up $5 million, or 1.3%, compared to the same period one year ago. This was primarily due to an increase in commissions based revenue offset by decreases in fees associated with lower assets under management balances.

A significant portion of our trust and investment services income depends on the value and mix of assets under management. At September 30, 2022, our bank, trust, and registered investment advisory subsidiaries had assets under management of $47.8 billion, compared to $52.9 billion at September 30, 2021. Assets under management were down compared to September 30, 2021, as shown in Figure 5, due to market impact on portfolios.

Figure 5. Assets Under Administration

Dollars in millions	September 30, 2022	June 30, 2022	March 31, 2022	December 31, 2021	September 30, 2021
Discretionary assets under management by investment type:					
Equity	$ **26,930**	$ 28,344	$ 32,270	$ 33,767	$ 31,361
Securities lending	**—**	—	—	—	13
Fixed income	**13,035**	12,913	13,414	13,851	13,673
Money market	**4,850**	4,604	4,481	4,541	4,425
Total discretionary assets under management	**44,815**	45,861	50,165	52,159	49,472
Non-discretionary assets under administration	**3,031**	3,142	3,542	3,647	3,395
Total	$ **47,846**	$ 49,003	$ 53,707	$ 55,806	$ 52,867

Investment banking and debt placement fees

Investment banking and debt placement fees consists of syndication fees, debt and equity securities underwriting fees, merger and acquisition and financial advisory fees, gains on sales of commercial mortgages, and agency

origination fees. For the three months ended September 30, 2022, investment banking and debt placement fees were down $81 million, or 34.5%, compared to the same period a year ago. For the nine months ended September 30, 2022, investment banking and debt placement fees decreased $148 million, or 24.1%. The movement reflects the slowdown in broader capital markets activity.

Service charges on deposit accounts

Service charges on deposit accounts increased $1 million, or 1.1%, for the three months ended September 30, 2022, compared to the same period one year ago. For the nine months ended September 30, 2022, service charges on deposit accounts increased by $32 million, or 13.0%, from the nine months ended September 30, 2021, driven by higher gross overdraft fees and account analysis fees.

Cards and payments income

Cards and payments income, which consists of debit card, prepaid card, consumer and commercial credit card, and merchant services income, decreased $20 million, or 18.0%, for the three months ended September 30, 2022, compared to the same period one year ago. For the nine months ended September 30, 2022, cards and payment income decreased $73 million, or 22.2%, from the same period a year ago. These decreases are primarily a result of lower prepaid card activity offset by slight increases in merchant services income.

Other noninterest income

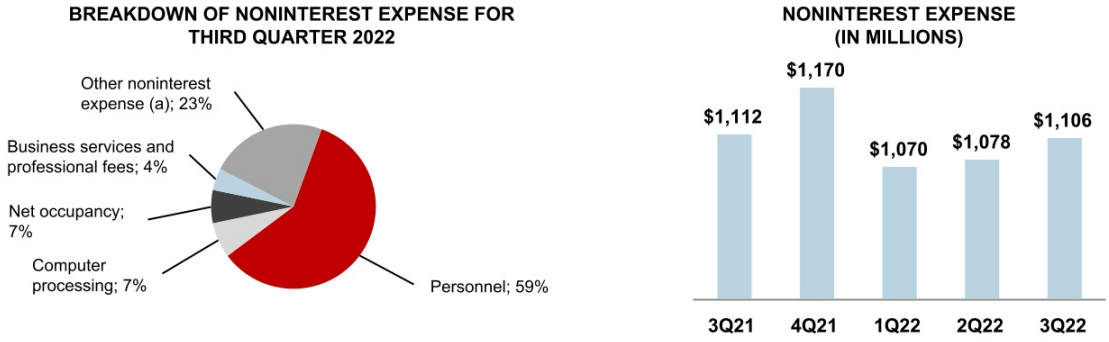
Other noninterest income includes operating lease income and other leasing gains, corporate services income, corporate-owned life insurance income, consumer mortgage income, commercial mortgage servicing fees, and other income. Other noninterest income for the three months ended September 30, 2022, decreased $12 million, or 5.2%, from the year-ago quarter, as a result of a decrease in consumer mortgage income from lower gain on sale margins and a decrease in other income due to the gain on sale of the indirect auto portfolio recognized in the year-ago quarter. For the nine months ended September 30, 2022, other noninterest income decreased $54 million, or 7.7%, from the same period a year ago, driven by the overall decrease in consumer mortgage income as well as decreases from market adjustments on other investments partially offset by an increase in corporate services income from derivative related activity.

Noninterest expense

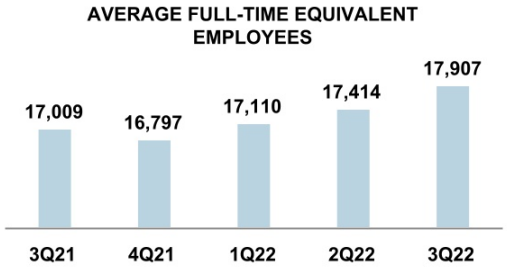
As shown in Figure 6, noninterest expense was $1.1 billion for the third quarter of 2022, compared to $1.1 billion for the third quarter of 2021. Noninterest expense was $3.3 billion for the nine months ended September 30, 2022, compared to $3.3 billion for the nine months ended September 30, 2021.

The following discussion explains the composition of certain elements of our noninterest expense and the factors that caused those elements to change.

Figure 6. Noninterest Expense



(a) Other noninterest expense includes equipment, operating lease expense, marketing, and other expense. See the "Consolidated Statements of Income" in Item 1. Financial Statements of this report.



Personnel

Personnel expense, the largest category of our noninterest expense, increased by $15 million, or 2.3%, for the three months ended September 30, 2022, compared to the same period one year ago. For the nine months ended September 30, 2022, personnel expense was up $5 million, or 0.3%, compared to the same period one year ago. The increases were driven by higher salaries and contract labor, with slight offsets from decreased incentive compensation costs.

Other nonpersonnel expense

Other nonpersonnel expense includes net occupancy, computer processing, business services and professional fees, equipment, operating lease expense, marketing, and other miscellaneous expense categories. Other nonpersonnel expense for the three months ended September 30, 2022, decreased $21 million, or 4.4%, from the year-ago quarter, primarily due to decreases in business and professional fees and other expense. For the nine months ended September 30, 2022, other nonpersonnel expense decreased $10 million, or 0.7%, from the nine months ended September 30, 2021, also primarily due to decreases in business and professional fees and other expense.

Income taxes

We recorded tax expense of $124 million for the third quarter of 2022 and $165 million for the third quarter of 2021. We recorded tax expense of $346 million for the nine months ended September 30, 2022, compared to $501 million for the nine months ended September 30, 2021.

Our federal tax expense and effective tax rate differs from the amount that would be calculated using the federal statutory tax rate; primarily from investments in tax-advantaged assets, such as corporate-owned life insurance, tax credits associated with energy related projects and low-income housing investments, and periodic adjustments to our tax reserves.

Additional information pertaining to how our tax expense (benefit) and the resulting effective tax rates were derived is included in Note 14 (“Income Taxes”) beginning on page 156 of our 2021 Form 10-K.

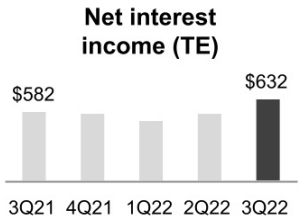
Business Segment Results

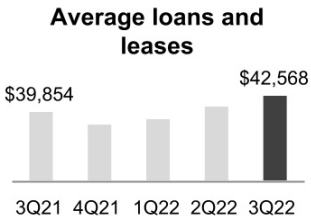
This section summarizes the financial performance of our two major business segments (operating segments): Consumer Bank and Commercial Bank. Note 20 (“Business Segment Reporting”) describes the products and services offered by each of these business segments and provides more detailed financial information pertaining to the segments. For more information on the segment imperatives and market and business overview, see “Business Segment Results” beginning on page 55 of our 2021 Form 10-K. Dollars in the charts are presented in millions.

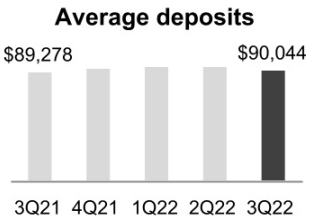
Consumer Bank

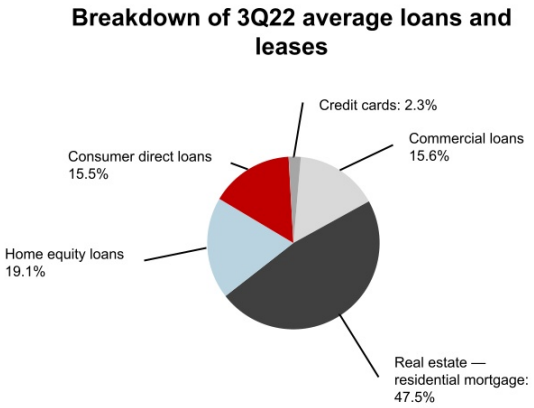
Summary of operations

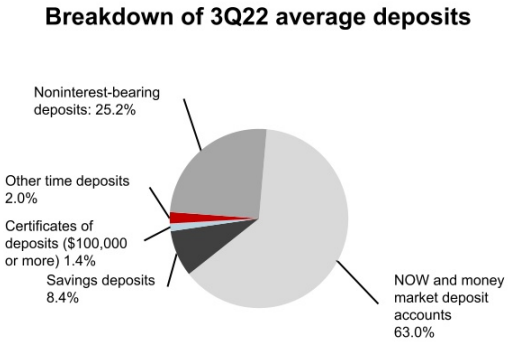
- Net income attributable to Key of $142 million for the third quarter of 2022, compared to $241 million for the year-ago quarter
- Taxable-equivalent net interest income increased by $50 million, or 8.6%, compared to the third quarter of 2021, driven by higher earning assets, partially offset by the sale of the indirect auto loan portfolio
- Average loans and leases increased $2.7 billion, or 6.8%, from the third quarter of 2021, driven by loan growth in consumer mortgage and Laurel Road, partly offset by the sale of the indirect auto loan portfolio
- Average deposits increased $766 million, or 0.9%, from the third quarter of 2021, driven by higher retail deposits



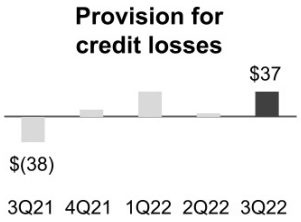


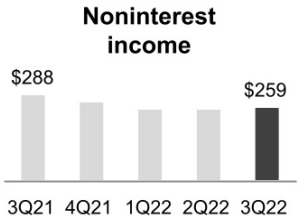


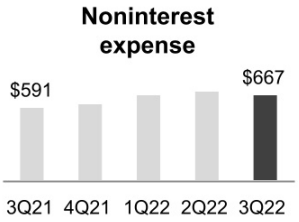




- Provision for credit losses increased $75 million compared to the third quarter of 2021, due to an increase in the provision in the current quarter, reflecting the change in the economic outlook, as well as a reserve release in the year-ago period as uncertainty caused by the pandemic subsided
- Noninterest income decreased $29 million, or 10.1%, from the third quarter of 2021, driven by lower consumer mortgage income, reflecting lower gain on sale margins, as well as a decline in trust and investment services, reflecting lower equity markets
- Noninterest expense increased $76 million, or 12.9%, from the third quarter of 2021, driven by an increase in personnel expense



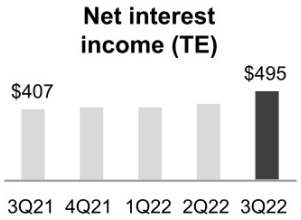


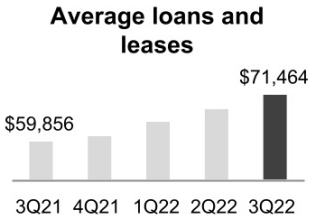


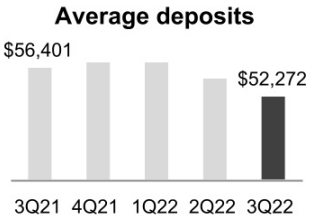
Commercial Bank

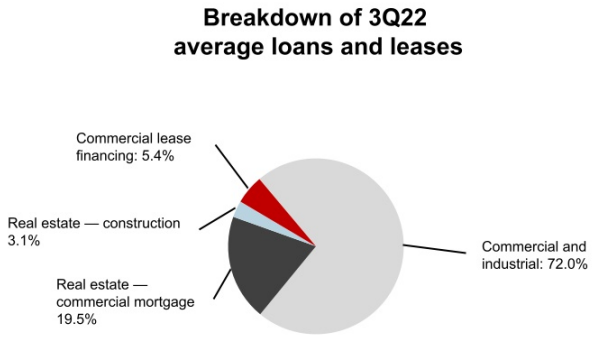
Summary of operations

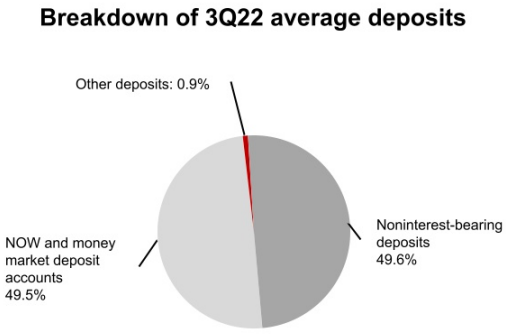
- Net income attributable to Key of $295 million for the third quarter of 2022, compared to $379 million for the year-ago quarter
- Taxable-equivalent net interest income increased by $88 million, compared to the third quarter of 2021, reflecting growth in commercial and industrial loans and commercial real estate loans, as well as higher interest rates
- Average loan and lease balances increased $11.6 billion, compared to the third quarter of 2021, due to growth in commercial and industrial loans and commercial mortgage real estate loans
- Average deposit balances decreased $4.1 billion, or 7.3%, compared to the third quarter of 2021, driven by a decline in non-operating deposits





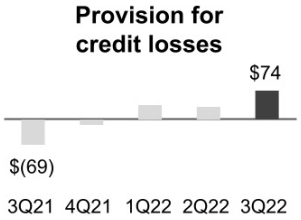


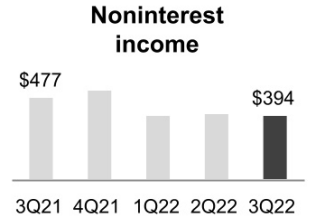


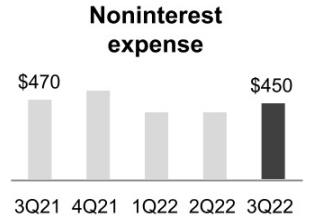


a

- Provision for credit losses increased $143 million compared to the third quarter of 2021, due to an increase in the provision in the current quarter, reflecting the change in the economic outlook, as well as a reserve release in the year-ago period as uncertainty caused by the pandemic subsided
- Noninterest income decreased $83 million, from the third quarter of 2021, driven by lower investment banking and debt placement fees and lower cards and payments income, partially offset by an increase in corporate services income
- Noninterest expense decreased by $20 million, or 4.3%, from the third quarter of 2021, driven by lower incentive compensation



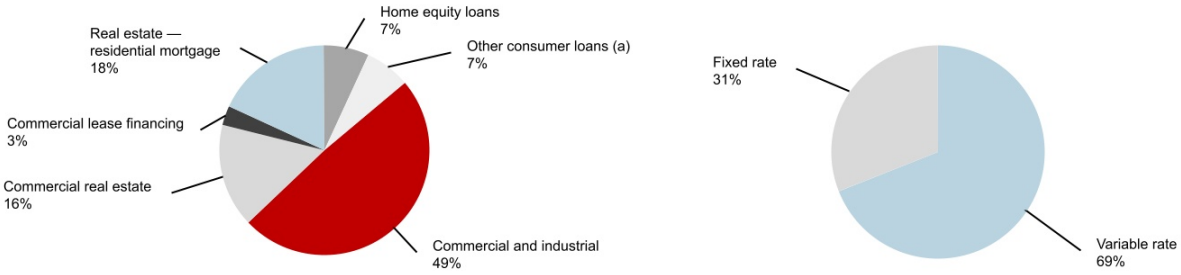




Financial Condition

Loans and loans held for sale

Figure 7. Breakdown of Loans at September 30, 2022



(a) Other consumer loans include Consumer direct loans, Credit cards, and Consumer indirect loans. See Note 3 (“Loan Portfolio”) in Item 1. Financial Statements of this report.

At September 30, 2022, total loans outstanding from continuing operations were $116.2 billion, compared to $101.9 billion at December 31, 2021. For more information on balance sheet carrying value, see Note 1 (“Summary of Significant Accounting Policies”) under the headings “Loans” and “Loans Held for Sale” starting on page 108 of our 2021 Form 10-K.

Commercial loan portfolio

Commercial loans outstanding were $79.6 billion at September 30, 2022, an increase of $8.8 billion, or 12.4%, compared to December 31, 2021, driven by core portfolio growth in commercial and industrial loans and commercial real estate loans, including an increase in utilization rates.

Figure 8 provides our commercial loan portfolios by industry classification at September 30, 2022, and December 31, 2021.

Figure 8. Commercial Loans by Industry

September 30, 2022 *Dollars in millions*	Commercial and industrial	Commercial real estate	Commercial lease financing	Total commercial loans	Percent of total
Industry classification:					
Agriculture	$ 965	$ 163	$ 83	$ 1,211	1.5 %
Automotive	1,483	752	12	2,247	2.8
Business products	2,441	169	39	2,649	3.3
Business services	3,151	256	169	3,576	4.5
Chemicals	952	30	5	987	1.2
Commercial real estate	8,228	13,739	7	21,974	27.6
Construction materials and contractors	2,280	304	289	2,873	3.7
Consumer goods	4,338	542	267	5,147	6.5
Consumer services	4,876	867	364	6,107	7.7
Equipment	1,790	111	141	2,042	2.6
Finance	7,715	101	400	8,216	10.3
Healthcare	3,165	1,374	323	4,862	6.1
Metals and mining	1,571	74	50	1,695	2.1
Oil and gas	2,243	27	24	2,294	2.9
Public exposure	2,777	9	605	3,391	4.3
Technology	951	13	99	1,063	1.3
Transportation	1,286	164	518	1,968	2.5
Utilities	6,268	5	443	6,716	8.4
Other	491	49	39	579	.7
Total	$ 56,971	$ 18,749	$ 3,877	$ 79,597	100.0 %

December 31, 2021 *Dollars in millions*	Commercial and industrial	Commercial real estate	Commercial lease financing	Total commercial loans	Percent of total
Industry classification:					
Agriculture	$ 872	$ 161	$ 84	$ 1,117	1.6 %
Automotive	1,253	609	18	1,880	2.7
Business products	1,732	131	39	1,902	2.7
Business services	3,202	235	177	3,614	5.1
Chemicals	786	25	22	833	1.2
Commercial real estate	6,494	11,456	9	17,959	25.3
Construction materials and contractors	2,248	338	264	2,850	4.0
Consumer goods	3,760	555	276	4,591	6.5
Consumer services	4,998	889	424	6,311	8.9
Equipment	1,650	97	138	1,885	2.7
Finance	6,676	98	380	7,154	10.1
Healthcare	3,138	1,302	245	4,685	6.6
Metals and mining	1,219	71	55	1,345	1.9
Oil and gas	1,758	26	35	1,819	2.6
Public exposure	2,768	15	720	3,503	4.9
Technology	649	9	149	807	1.1
Transportation	1,288	134	551	1,973	2.8
Utilities	5,491	—	467	5,958	8.4
Other	543	89	18	650	.9
Total	$ 50,525	$ 16,240	$ 4,071	$ 70,836	100.0 %

Commercial and industrial. Commercial and industrial loans are the largest component of our loan portfolio, representing 49% of our total loan portfolio at September 30, 2022, and 51% at December 31, 2021. This portfolio is approximately 86% variable rate and consists of loans originated primarily to large corporate, middle market, and small business clients.

Commercial and industrial loans totaled $57.0 billion at September 30, 2022, an increase of $6.4 billion, or 12.8%, compared to December 31, 2021. The increase was broad-based and spread across most industry categories.

Commercial real estate loans. Our commercial real estate portfolio includes both mortgage and construction loans and is conducted through two primary sources: our 15-state banking franchise, and KeyBank Real Estate Capital, a national line of business within the Commercial Bank that cultivates relationships with owners of commercial real estate located both within and beyond the branch system. Nonowner-occupied properties, generally properties for which at least 50% of the debt service is provided by rental income from nonaffiliated third parties, represented 81% of total commercial real estate loans outstanding at September 30, 2022. Construction loans, which provide a stream of funding for properties not fully leased at origination to support debt service payments over the term of the contract or project, represented 13% of commercial real estate loans at period end.

At September 30, 2022, commercial real estate loans totaled $18.7 billion, which includes $16.4 billion of mortgage loans and $2.3 billion of construction loans. Compared to December 31, 2021, this portfolio increased $2.5 billion, or 15.4%, driven by growth in multi-family lending. We continue to focus primarily on owners and operators of completed and stabilized commercial real estate in accordance with our relationship strategy.

As shown in Figure 9, our commercial real estate loan portfolio includes various property types and geographic locations of the underlying collateral. These loans include commercial mortgage and construction loans in both Consumer Bank and Commercial Bank.

Figure 9. Commercial Real Estate Loans

Dollars in millions	Geographic Region							Total	Percent of Total	Construction	Commercial Mortgage
	West	Southwest	Central	Midwest	Southeast	Northeast	National				
September 30, 2022											
Nonowner-occupied:											
Diversified	$ 9	$ —	$ —	$ 4	$ —	$ 27	$ 227	$ 267	1.4 %	$ —	$ 267
Industrial	67	25	68	118	222	275	60	835	4.5	151	684
Land & Residential	1	3	4	2	3	21	—	34	.2	12	22
Lodging	78	—	10	4	20	86	45	243	1.3	22	221
Medical Office	46	—	43	9	14	92	26	230	1.2	47	183
Multifamily	1,048	520	1,522	1,180	2,581	1,399	386	8,636	46.1	1,606	7,030
Office	194	—	173	114	134	325	96	1,036	5.5	—	1,036
Retail	293	35	131	162	69	407	370	1,467	7.8	100	1,367
Self Storage	84	13	49	17	61	44	124	392	2.1	5	387
Senior Housing	145	55	146	76	113	138	269	942	5.0	180	762
Skilled Nursing	—	—	—	52	—	248	149	449	2.4	—	449
Student Housing	—	—	—	53	175	14	—	242	1.3	38	204
Other	24	4	8	94	35	90	196	451	2.4	2	449
Total nonowner-occupied	1,989	655	2,154	1,885	3,427	3,166	1,948	15,224	81.2	2,163	13,061
Owner-occupied	1,171	3	334	510	151	1,356	—	3,525	18.8	186	3,339
Total	$ 3,160	$ 658	$ 2,488	$ 2,395	$ 3,578	$ 4,522	$ 1,948	$ 18,749	100.0 %	$ 2,349	$ 16,400
Nonperforming loans	$ 1	—	$ —	$ 2	$ 1	$ 8	$ 22	$ 34	N/M	$ —	$ 34
Accruing loans past due 90 days or more	1	—	1	—	—	7	—	9	N/M	1	8
Accruing loans past due 30 through 89 days	1	1	—	1	—	2	—	5	N/M	—	5
December 31, 2021											
Nonowner-occupied:											
Diversified	$ 18	$ —	$ —	$ 1	$ —	$ 40	$ 183	$ 242	1.5 %	$ —	$ 242
Industrial	47	25	44	44	218	224	114	716	4.4	90	626
Land & Residential	13	3	4	2	5	29	—	56	.3	33	23
Lodging	75	—	21	4	30	101	28	259	1.6	27	232
Medical Office	46	—	44	5	6	95	—	196	1.2	24	172
Multifamily	855	490	1,166	941	1,651	1,392	239	6,734	41.5	1,249	5,485
Office	213	—	199	122	133	372	46	1,085	6.7	17	1,068
Retail	247	36	131	226	95	409	192	1,336	8.2	87	1,249
Self Storage	44	5	44	13	39	50	74	269	1.7	5	264
Senior Housing	115	32	109	57	107	198	222	840	5.2	114	726
Skilled Nursing	—	39	19	2	13	271	164	508	3.1	—	508
Student Housing	10	—	36	65	124	14	—	249	1.5	86	163
Other	20	—	6	77	33	120	89	345	2.1	2	343
Total nonowner-occupied	1,703	630	1,823	1,559	2,454	3,315	1,351	12,835	79.0	1,734	11,101
Owner-occupied	1,065	—	293	592	124	1,331	—	3,405	21.0	262	3,143
Total	$ 2,768	$ 630	$ 2,116	$ 2,151	$ 2,578	$ 4,646	$ 1,351	$ 16,240	100.0 %	$ 1,996	$ 14,244
Nonperforming loans	$ —	—	$ —	$ 2	$ —	$ 17	$ 25	$ 44	N/M	$ —	$ 44
Accruing loans past due 90 days or more	1	—	1	—	—	6	—	8	N/M	1	7
Accruing loans past due 30 through 89 days	—	—	5	1	24	5	—	35	N/M	16	19

West –	Alaska, California, Hawaii, Idaho, Montana, Oregon, Washington, and Wyoming
Southwest –	Arizona, Nevada, and New Mexico
Central –	Arkansas, Colorado, Oklahoma, Texas, and Utah
Midwest –	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin
Southeast –	Alabama, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, Washington D.C., and West Virginia
Northeast –	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont
National –	Accounts in three or more regions

Consumer loan portfolio

Consumer loans outstanding as of September 30, 2022, totaled $36.6 billion, an increase of $5.6 billion, or 18.0%, from December 31, 2021. Consumer loan growth continues to reflect strength from the consumer mortgage business and Laurel Road.

The residential mortgage portfolio is comprised of loans originated by our Consumer Bank and is the largest segment of our consumer loan portfolio as of September 30, 2022, representing 57% of consumer loans outstanding. This is followed by our home equity portfolio representing 22% of consumer loans outstanding at September 30, 2022.

We held the first lien position for approximately 67% of the home equity portfolio at September 30, 2022, and 71% at December 31, 2021. For loans with real estate collateral, we track borrower performance monthly. Regardless of the lien position, credit metrics are refreshed quarterly, including recent FICO scores as well as updated loan-to-value ratios. This information is used in establishing the ALLL. Our methodology is described in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Allowance for Loan and Lease Losses” of our 2021 Form 10-K.

Figure 10 presents our consumer loans by geography.

Figure 10. Consumer Loans by State

Dollars in millions	Real estate — residential mortgage	Home equity loans	Consumer direct loans	Credit cards	Consumer indirect loans	Total
September 30, 2022						
Washington	$ 4,480	$ 1,096	$ 262	$ 84	$ 2	$ 5,924
Ohio	2,791	1,053	542	203	6	4,595
New York	821	2,303	785	343	2	4,254
Colorado	2,939	298	174	30	—	3,441
California	2,325	16	547	3	7	2,898
Oregon	1,231	642	119	41	—	2,033
Pennsylvania	445	598	401	58	3	1,505
Florida	827	44	463	13	8	1,355
Texas	306	4	402	4	3	719
Illinois	130	3	214	1	1	349
Other	4,543	1,869	2,894	197	18	9,521
Total	$ 20,838	$ 7,926	$ 6,803	$ 977	$ 50	$ 36,594
December 31, 2021						
Ohio	$ 2,631	$ 1,284	$ 485	$ 206	$ 8	$ 4,614
New York	679	2,467	638	345	4	4,133
Washington	2,264	1,076	234	81	2	3,657
Colorado	2,602	284	156	30	—	3,072
California	1,781	14	430	3	10	2,238
Oregon	1,009	670	110	40	1	1,830
Pennsylvania	351	634	327	55	4	1,371
Connecticut	837	319	96	26	2	1,280
Florida	591	46	378	13	10	1,038
Texas	184	5	343	4	4	540
Other	2,827	1,668	2,556	169	25	7,245
Total	$ 15,756	$ 8,467	$ 5,753	$ 972	$ 70	$ 31,018

Figure 11 summarizes our loan sales for the nine months ended September 30, 2022 and all of 2021.

Figure 11. Loans Sold (Including Loans Held for Sale)

Dollars in millions	Commercial	Commercial Real Estate	Commercial Lease Financing	Residential Real Estate	Consumer Direct	Consumer indirect	Total
2022							
Third quarter	**$ 211**	**$ 1,882**	**$ 43**	**$ 353**	**$ —**	**$ —**	**$ 2,489**
Second quarter	**41**	**1,851**	**150**	**496**	**—**	**—**	**2,538**
First quarter	**1,469**	**1,909**	**39**	**901**	**—**	**—**	**4,318**
Total	**$ 1,721**	**$ 5,642**	**$ 232**	**$ 1,750**	**$ —**	**$ —**	**$ 9,345**
2021							
Fourth quarter	$ 296	$ 3,460	$ 93	$ 987	$ —	$ —	$ 4,836
Third quarter	215	1,996	68	901	—	3,305	6,485
Second quarter	1,085	1,907	75	1,192	—	—	4,259
First quarter	124	1,930	156	1,129	—	—	3,339
Total	$ 1,720	$ 9,293	$ 392	$ 4,209	$ —	$ 3,305	$ 18,919

Figure 12 shows loans that are either administered or serviced by us, but not recorded on the balance sheet; this includes loans that were sold.

Figure 12. Loans Administered or Serviced

Dollars in millions	September 30, 2022	June 30, 2022	March 31, 2022	December 31, 2021	September 30, 2021
Commercial real estate loans	**$ 485,342**	$ 479,974	$ 469,371	$ 444,131	$ 422,091
Residential mortgage	**11,014**	10,948	10,756	10,312	9,844
Education loans	**341**	366	389	415	442
Commercial lease financing	**1,619**	1,418	1,195	1,236	1,318
Commercial loans	**727**	724	740	750	743
Consumer direct	**536**	575	621	699	798
Consumer indirect	**1,766**	2,039	2,354	2,714	3,109
Total	**$ 501,345**	$ 496,044	$ 485,426	$ 460,257	$ 438,345

In the event of default by a borrower, we are subject to recourse with respect to approximately $6.7 billion of the $501.3 billion of loans administered or serviced at September 30, 2022. Additional information about this recourse arrangement is included in Note 17 (“Contingent Liabilities and Guarantees”) under the heading “Recourse agreement with FNMA.”

We derive income from several sources when retaining the right to administer or service loans that are sold. We earn noninterest income (recorded as “Consumer mortgage income” and “Commercial mortgage servicing fees”) from fees for servicing or administering loans. This fee income is reduced by the amortization of related servicing assets. In addition, we earn interest income from investing funds generated by escrow deposits collected in connection with the servicing loans. Additional information about our mortgage servicing assets is included in Note 8 (“Mortgage Servicing Assets”).

Securities

Our securities portfolio totaled $48.2 billion at September 30, 2022, compared to $52.9 billion at December 31, 2021. Available-for-sale securities were $40.0 billion at September 30, 2022, compared to $45.4 billion at December 31, 2021. Held-to-maturity securities were $8.2 billion at September 30, 2022, and $7.5 billion at December 31, 2021.

As shown in Figure 13, all of our mortgage-backed securities, which include both securities available-for-sale and held-to-maturity securities, are issued by government-sponsored enterprises or GNMA, and are traded in liquid secondary markets. These securities are recorded on the balance sheet at fair value for the available-for-sale portfolio and at amortized cost for the held-to-maturity portfolio. For more information about these securities, refer to our 2021 Form 10-K within Note 1 (“Summary of Significant Accounting Policies”) under the heading “Securities” and Note 6 (“Fair Value Measurements”) under the heading “Qualitative Disclosures of Valuation Techniques.” Additionally refer to Note 6 (“Securities”) within this report.

Figure 13. Mortgage-Backed Securities by Issuer

Dollars in millions	September 30, 2022	December 31, 2021
FHLMC & FNMA	**$ 25,339**	$ 28,461
GNMA	**11,802**	12,469
Total [a]	**$ 37,141**	$ 40,930

(a) Includes securities held in the available-for-sale and held-to-maturity portfolios.

Securities available for sale

The majority of our securities available-for-sale portfolio consists of Federal Agency CMOs and mortgage-backed securities. CMOs are debt securities secured by a pool of mortgages or mortgage-backed securities. These mortgage securities generate interest income, serve as collateral to support certain pledging agreements, and provide liquidity value to help meet regulatory requirements.

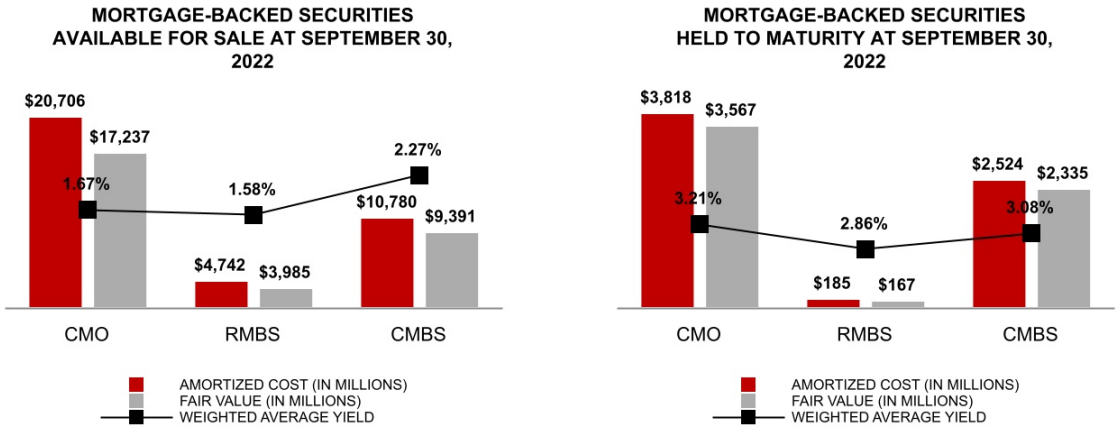


Figure 14 shows the composition, yields, and remaining maturities of our securities available for sale. For more information about these securities, including gross unrealized gains and losses by type of security and securities pledged, see Note 6 (“Securities”).

Figure 14. Securities Available for Sale

Dollars in millions	U.S. Treasury, Agencies, and Corporations	Agency Residential Collateralized Mortgage Obligations [a]	Agency Residential Mortgage-backed Securities [a]	Agency Commercial Mortgage-backed Securities [a]	Other Securities	Total	Weighted-Average Yield [b]
September 30, 2022							
Remaining maturity:							
One year or less	$ 511	$ 58	$ 3	$ 27	$ —	$ 599	.58 %
After one through five years	8,614	2,155	2,454	2,343	—	15,566	1.28
After five through ten years	155	11,088	1,286	5,432	1	17,962	1.78
After ten years	106	3,936	242	1,589	—	5,873	1.70
Fair value	$ 9,386	$ 17,237	$ 3,985	$ 9,391	$ 1	$ 40,000	—
Amortized cost	$ 10,062	$ 20,706	$ 4,742	$ 10,780	$ 1	$ 46,291	1.57 %
Weighted-average yield [b]	.59 %	1.67 %	1.58 %	2.27 %	— %	1.57 %	—
Weighted-average maturity	2.1 years	8.2 years	5.0 years	7.7 years	— years	6.4 years	—
December 31, 2021							
Fair value	$ 9,472	$ 21,119	$ 5,122	$ 9,651	$ —	$ 45,364	—
Amortized cost	9,573	21,430	5,137	9,753	—	45,893	1.43 %

(a) Maturity is based upon expected average lives rather than contractual terms.
(b) Weighted-average yields are calculated based on amortized cost. Such yields have been adjusted to a TE basis using the statutory federal income tax rate of 21%.

Held-to-maturity securities

The majority of our held-to-maturity portfolio consists of Federal agency CMOs and mortgage-backed securities. This portfolio is also comprised of asset-backed securities that were acquired as the result of balance sheet optimization strategies, including the indirect auto portfolio transaction in the third quarter of 2021. The remaining balance is comprised of foreign bonds. Figure 15 shows the composition, yields, and remaining maturities of these securities.

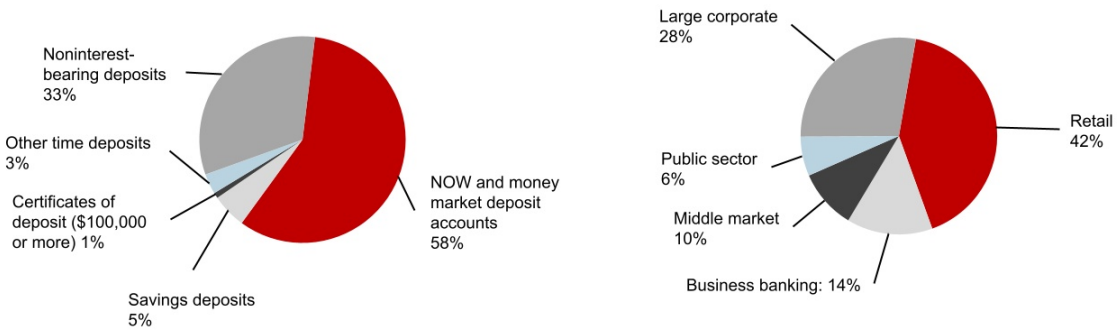
Figure 15. Held-to-Maturity Securities

Dollars in millions	Agency Residential Collateralized Mortgage Obligations [a]	Agency Residential Mortgage-backed Securities [a]	Agency Commercial Mortgage-backed Securities [a]	Asset-backed securities	Other Securities	Total	Weighted-Average Yield [b]
September 30, 2022							
Remaining maturity:							
One year or less	$ 13	$ —	$ 6	$ 3	$ 2	$ 24	2.29 %
After one through five years	1,058	131	1,706	1,618	13	4,526	2.43
After five through ten years	1,679	54	767	—	—	2,500	3.26
After ten years	1,068	—	45	—	—	1,113	4.32
Amortized cost	$ 3,818	$ 185	$ 2,524	$ 1,621	$ 15	$ 8,163	2.94 %
Fair value	$ 3,567	$ 167	$ 2,335	$ 1,513	$ 14	$ 7,596	—
Weighted-average yield [b]	3.21 %	2.86 %	3.08 %	2.10 %	2.40 %	2.94 %	—
Weighted-average maturity	7.6 years	5.4 years	4.7 years	1.8 years	2.4 years	5.5 years	—
December 31, 2021							
Amortized cost	$ 2,196	$ 164	$ 2,678	$ 2,485	$ 16	$ 7,539	2.37 %
Fair value	2,229	170	2,796	2,454	16	7,665	—

(a) Maturity is based upon expected average lives rather than contractual terms.
(b) Weighted-average yields are calculated based on amortized cost. Such yields have been adjusted to a TE basis using the statutory federal income tax rate of 21%.

Deposits and other sources of funds

Figure 16. Breakdown of Deposits at September 30, 2022



Deposits are our primary source of funding. At September 30, 2022, our deposits totaled $144.9 billion, a decrease of $7.7 billion compared to December 31, 2021. The decrease reflects declines in retail balances and declines in non-operating commercial deposit balances.

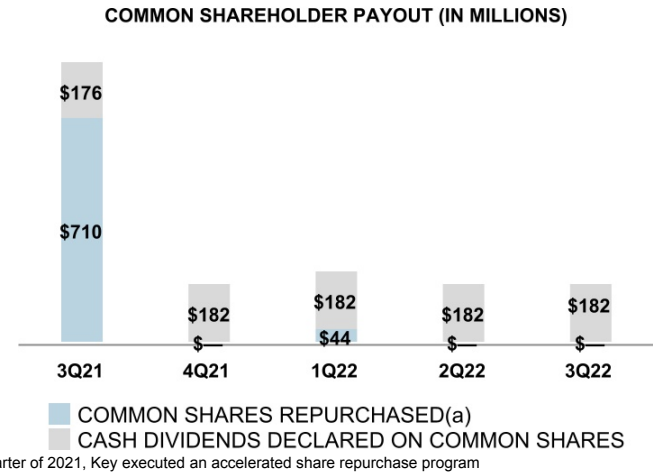
Wholesale funds, consisting of short-term borrowings and long-term debt, totaled $27.1 billion at September 30, 2022, compared to $12.8 billion at December 31, 2021. The increase is the result of solid loan growth and a decline in deposit balances.

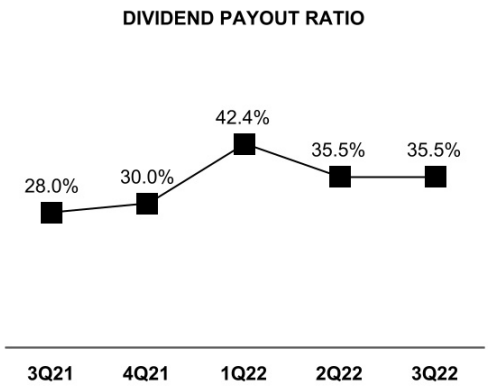
Capital

The objective of capital management is to maintain capital levels consistent with our risk appetite and of a sufficient amount to operate under a wide range of economic conditions. We have identified three primary uses of capital:

1. Investing in our businesses, supporting our clients, and loan growth;
2. Maintaining or increasing our Common Share dividend; and
3. Returning capital in the form of Common Share repurchases to our shareholders.

The following sections discuss certain ways we have deployed our capital. For further information, see the Consolidated Statements of Changes in Equity and Note 19 (“Shareholders' Equity”).





(a) - In the third quarter of 2021, Key executed an accelerated share repurchase program

Dividends

Consistent with our 2021 capital plan, we paid a quarterly dividend of $.195 per Common Share for the third quarter of 2022. Further information regarding the capital planning process and CCAR is included under the heading “Capital planning and stress testing” beginning on page 16 in the “Supervision and Regulation” section of our 2021 Form 10-K.

Common shares outstanding

Our Common Shares are traded on the NYSE under the symbol KEY with 29,916 holders of record at September 30, 2022. Our book value per Common Share was $11.62 based on 932.9 million shares outstanding at September 30, 2022, compared to $16.76 per Common Share based on 928.8 million shares outstanding at December 31, 2021. At September 30, 2022, our tangible book value per Common Share was $8.56, compared to $13.72 per Common Share at December 31, 2021.

Figure 17 shows activities that caused the change in outstanding Common Shares over the past five quarters.

Figure 17. Changes in Common Shares Outstanding

	2022		2021		
In thousands	**Third**	**Second**	**First**	**Fourth**	**Third**
Shares outstanding at beginning of period	**932,643**	932,398	928,850	930,544	960,276
Open market repurchases, repurchases under an ASR program, and return of shares under employee compensation plans	**(3)**	(24)	(1,707)	(2,482)	(29,923)
Shares issued under employee compensation plans (net of cancellations)	**298**	269	5,255	788	191
Shares outstanding at end of period	**932,938**	932,643	932,398	928,850	930,544

As shown above, Common Shares outstanding increased by .3 million shares during the third quarter of 2022.

At September 30, 2022, we had 323.8 million treasury shares, compared to 327.9 million treasury shares at December 31, 2021. Going forward we expect to reissue treasury shares as needed in connection with stock-based compensation awards and for other corporate purposes.

Information on repurchases of Common Shares by KeyCorp is included in Part II, Item 2. “Unregistered Sales of Equity Securities and Use of Proceeds” of this report.

Capital adequacy

Capital adequacy is an important indicator of financial stability and performance. All of our capital ratios remained in excess of regulatory requirements at September 30, 2022. Our capital and liquidity levels are intended to position us to weather an adverse operating environment while continuing to serve our clients’ needs, as well as to meet the Regulatory Capital Rules described in Item 1. Business of our 2021 Form 10-K under the heading “Supervision and Regulation.” Our shareholders’ equity to assets ratio was 7.0% at September 30, 2022, compared to 9.4% at December 31, 2021. Our tangible common equity to tangible assets ratio was 4.3% at September 30, 2022, compared to 6.9% at December 31, 2021. See the section entitled “GAAP to Non-GAAP Reconciliations,” which presents the computations of certain financial measures related to “tangible common equity.” The minimum capital and leverage ratios under the Regulatory Capital Rules together with the ratios of KeyCorp at September 30, 2022, are set forth in the “Supervision and regulation — Regulatory capital requirements” section in Item 2 of this report.

Figure 18 represents the details of our regulatory capital positions at September 30, 2022, and December 31, 2021, under the Regulatory Capital Rules. Information regarding the regulatory capital ratios of KeyCorp’s banking subsidiaries is presented annually, with the most recent information included in Note 24 (“Shareholders' Equity”) beginning on page 175 of our 2021 Form 10-K.

Figure 18. Capital Components and Risk-Weighted Assets

Dollars in millions	September 30, 2022	December 31, 2021
COMMON EQUITY TIER 1		
Key shareholders' equity (GAAP)	**$ 13,290**	$ 17,423
Less: Preferred Stock [a]	**2,446**	1,856
Add: CECL phase-in [b]	**178**	237
Common Equity Tier 1 capital before adjustments and deductions	**11,022**	15,804
Less: Goodwill, net of deferred taxes	**2,617**	2,571
Intangible assets, net of deferred taxes	**100**	125
Deferred tax assets	**1**	1
Net unrealized gains (losses) on available-for-sale securities, net of deferred taxes	**(4,745)**	(300)
Accumulated gains (losses) on cash flow hedges, net of deferred taxes	**(1,248)**	(14)
Amounts in AOCI attributed to pension and postretirement benefit costs, net of deferred taxes	**(264)**	(272)
Total Common Equity Tier 1 capital	**$ 14,561**	$ 13,693
TIER 1 CAPITAL		
Common Equity Tier 1	**$ 14,561**	$ 13,693
Additional Tier 1 capital instruments and related surplus	**2,446**	1,856
Less: Deductions	**—**	—
Total Tier 1 capital	**$ 17,007**	$ 15,549
TIER 2 CAPITAL		
Tier 2 capital instruments and related surplus	**$ 2,200**	$ 1,540
Allowance for losses on loans and liability for losses on lending-related commitments [c]	**1,133**	941
Less: Deductions	**—**	—
Total Tier 2 capital	**3,333**	2,481
Total risk-based capital	**$ 20,340**	$ 18,030
RISK-WEIGHTED ASSETS		
Risk-weighted assets on balance sheet	**$ 122,514**	$ 109,041
Risk-weighted off-balance sheet exposure	**36,430**	33,853
Market risk-equivalent assets	**771**	1,500
Gross risk-weighted assets	**159,715**	144,394
Less: Excess allowance for loan and lease losses	**—**	—
Net risk-weighted assets	**$ 159,715**	$ 144,394
AVERAGE QUARTERLY TOTAL ASSETS	**$ 190,627**	$ 183,604
CAPITAL RATIOS		
Tier 1 risk-based capital	**10.65 %**	10.77 %
Total risk-based capital	**12.74 %**	12.49 %
Leverage [d]	**8.92 %**	8.47 %
Common Equity Tier 1	**9.12 %**	9.48 %

(a) Net of capital surplus.
(b) Amount reflects our decision to adopt the CECL transitional provision.
(c) The ALLL included in Tier 2 capital is limited by regulation to 1.25% of the institution’s standardized total risk-weighted assets (excluding its standardized market risk-weighted assets). The ALLL includes $22 million and $28 million of allowance classified as “discontinued assets” on the balance sheet at September 30, 2022, and December 31, 2021, respectively.

(d) This ratio is Tier 1 capital divided by average quarterly total assets as defined by the Federal Reserve less: (i) goodwill, (ii) the disallowed intangible and deferred tax assets, and (iii) other deductions from assets for leverage capital purposes.

Risk Management

Overview

Like all financial services companies, we engage in business activities and assume the related risks. The most significant risks we face are credit, compliance, operational, liquidity, market, reputation, strategic, and model risks. Our risk management activities are focused on ensuring that we properly identify, measure, and manage such risks across the entire enterprise to maintain safety and soundness, and to maximize profitability. There have been no significant changes in our Risk Management practices as described under the heading “Risk Management” beginning on page 73 of our 2021 Form 10-K.

Market risk management

Market risk is the risk that movements in market risk factors, including interest rates, foreign exchange rates, equity prices, commodity prices, credit spreads, and volatilities, will reduce Key’s income and the value of its portfolios. These factors influence prospective yields, values, or prices associated with the instrument. We are exposed to market risk both in our trading and nontrading activities, which include asset and liability management activities. Information regarding our fair value policies, procedures, and methodologies is provided in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Fair Value Measurements” on page 111 of our 2021 Form 10-K and Note 5 (“Fair Value Measurements”) in this report.

Trading market risk

Key incurs market risk as a result of trading activities that are used in support of client facilitation and hedging activities, principally within our investment banking and capital markets businesses. Key has exposures to a wide range of risk factors including interest rates, equity prices, foreign exchange rates, credit spreads, and commodity prices, as well as the associated implied volatilities and spreads. Our primary market risk exposures are a result of trading and hedging activities in the derivative and fixed income markets, including securitization positions exposures. At September 30, 2022, we did not have any re-securitization positions. We maintain modest trading inventories to facilitate customer flow, make markets in securities, and hedge certain risks including but not limited to credit risk and interest rate risk. The risks associated with these activities are mitigated in accordance with the Market Risk hedging policy. The majority of our positions are traded in active markets.

Market risk management is an integral part of Key’s risk culture. The Risk Committee of our Board provides oversight of trading market risks. The ERM Committee and the Market Risk Committee regularly review and discuss market risk reports prepared by our MRM that contain our market risk exposures and results of monitoring activities. Market risk policies and procedures have been defined and approved by the Market Risk Committee, a Tier 2 Risk Governance Committee, and take into account our tolerance for risk and consideration for the business environment. For more information regarding monitoring of trading positions and the activities related to the Market Risk Rule compliance, see ”Market Risk Management” beginning on page 75 of our 2021 Form 10-K.

VaR and stressed VaR. VaR is the estimate of the maximum amount of loss on an instrument or portfolio due to adverse market conditions during a given time interval within a stated confidence level. Stressed VaR is used to assess extreme conditions on market risk within our trading portfolios. The MRM calculates VaR and stressed VaR on a daily basis, and the results are distributed to appropriate management. VaR and stressed VaR results are also provided to our regulators and utilized in regulatory capital calculations.

We use a historical simulation VaR model to measure the potential adverse effect of changes in interest rates, foreign exchange rates, equity prices, and credit spreads on the fair value of our covered positions and other non-covered positions. We analyze market risk by portfolios and do not separately measure and monitor our portfolios by risk type. Historical scenarios are customized for specific positions, and numerous risk factors are incorporated in the calculation. Additional consideration is given to the risk factors to estimate the exposures that contain optionality features, such as options and cancellable provisions. VaR is calculated using daily observations over a one-year time horizon and approximates a 95% confidence level. Statistically, this means that we would expect to incur losses greater than VaR, on average, five out of 100 trading days, or three to four times each quarter. We also calculate VaR and stressed VaR at a 99% confidence level. For more information regarding our VaR model, its governance and assumptions, see ”Market Risk Management” on page 75 of our 2021 Form 10-K.

Actual losses for the total covered portfolios did not exceed aggregate daily VaR on any day during the quarter ended September 30, 2022. Actual losses for the total covered portfolios did not exceed the aggregate daily VaR at a 99% confidence level during the quarter ended September 30, 2021. The MRM backtests our VaR model on a daily basis to evaluate its predictive power. The test compares VaR model results at the 99% confidence level to daily held profit and loss. Results of backtesting are provided to the Market Risk Committee. Backtesting exceptions occur when trading losses exceed VaR. We do not engage in correlation trading or utilize the internal model approach for measuring default and credit migration risk. Our net VaR approach incorporates diversification, but our VaR calculation does not include the impact of counterparty risk and our own credit spreads on derivatives.

The aggregate VaR at the 99% confidence level with a one day holding period for all covered positions was $1.3 million at September 30, 2022, and $1.1 million at September 30, 2021. Figure 19 summarizes our VaR at the 99% confidence level with a one day holding period for significant portfolios of covered positions for the three months ended September 30, 2022, and September 30, 2021.

Figure 19. VaR for Significant Portfolios of Covered Positions

	2022				2021			
	Three months ended September 30,				Three months ended September 30,			
Dollars in millions	High	Low	Mean	September 30,	High	Low	Mean	September 30,
Trading account assets:								
Fixed income	$ 1.1	$ .5	$ .8	$ .7	$ 1.4	$ .6	$ .9	$ 1.0
Derivatives:								
Interest rate	$ .5	$ .1	$ .3	$ .2	$ .2	$ .1	$ .1	$ .1

Stressed VaR is calculated by running the portfolios through a predetermined stress period which is approved by the Market Risk Committee and is calculated at the 99% confidence level using the same model and assumptions used for general VaR. The aggregate stressed VaR for all covered positions was $2.7 million at September 30, 2022, and $6.6 million at September 30, 2021. The decrease in stressed VaR is due to several factors including a change in our VaR modeling and the change in the size and composition of the Fixed Income inventory. Figure 20 summarizes our stressed VaR at the 99% confidence level with a one day holding period for significant portfolios of covered positions for the three months ended September 30, 2022, and September 30, 2021.

Figure 20. Stressed VaR for Significant Portfolios of Covered Positions

	2022				2021			
	Three months ended September 30,				Three months ended September 30,			
Dollars in millions	High	Low	Mean	September 30,	High	Low	Mean	September 30,
Trading account assets:								
Fixed income	$ 2.3	$ 1.0	$ 1.7	$ 2.0	$ 6.4	$ 1.8	$ 4.1	$ 5.8
Derivatives:								
Interest rate	$ .5	$ .1	$ .3	$ .3	$ .6	$ .3	$ .4	$ .5

Internal capital adequacy assessment. Market risk is a component of our internal capital adequacy assessment. Our risk-weighted assets include a market risk-equivalent asset amount, which consists of a VaR component, stressed VaR component, a *de minimis* exposure amount, and a specific risk add-on including the securitization positions. The aggregate market value of the securitization positions as defined by the Market Risk Rule was $0.1 million at September 30, 2022, all of which were mortgage-backed security positions. Specific risk is the price risk of individual financial instruments, which is not accounted for by changes in broad market risk factors and is measured through a standardized approach. Market risk weighted assets, including the specific risk calculations, are run quarterly by the MRM in accordance with the Market Risk Rule, and approved by the Chief Market Risk Officer.

Nontrading market risk

Most of our nontrading market risk is derived from interest rate fluctuations and its impacts on our traditional loan and deposit products, as well as investments, hedging relationships, long-term debt, and certain short-term borrowings. Interest rate risk, which is inherent in the banking industry, is measured by the potential for fluctuations in net interest income and the EVE. Such fluctuations may result from changes in interest rates and differences in the repricing and maturity characteristics of interest-earning assets and interest-bearing liabilities. We manage the exposure to changes in net interest income and the EVE in accordance with our risk appetite and in accordance with the Board approved ERM policy.

Interest rate risk positions are influenced by a number of factors, including the balance sheet positioning that arises out of customer preferences for loan and deposit products, economic conditions, the competitive environment within our markets, changes in market interest rates that affect client activity, and our hedging, investing, funding, and capital positions. The primary components of interest rate risk exposure consist of reprice risk, basis risk, yield curve risk, and option risk.

- ***"Reprice risk"*** is the exposure to changes in the level of interest rates and occurs when the volume of interest-bearing liabilities and the volume of interest-earning assets they fund (e.g., deposits used to fund loans) do not mature or reprice at the same time.
- ***"Basis risk"*** is the exposure to asymmetrical changes in interest rate indexes and occurs when floating-rate assets and floating-rate liabilities reprice at the same time, but in response to different market factors or indexes.
- ***"Yield curve risk"*** is the exposure to nonparallel changes in the slope of the yield curve (where the yield curve depicts the relationship between the yield on a particular type of security and its term to maturity) and occurs when interest-bearing liabilities and the interest-earning assets that they fund do not price or reprice to the same term point on the yield curve.
- ***"Option risk"*** is the exposure to a customer or counterparty's ability to take advantage of the interest rate environment and terminate or reprice one of our assets, liabilities, or off-balance sheet instruments prior to contractual maturity without a penalty. Option risk occurs when exposures to customer and counterparty early withdrawals or prepayments are not mitigated with an offsetting position or appropriate compensation.

The management of nontrading market risk is centralized within Corporate Treasury. The Risk Committee of our Board provides oversight of nontrading market risk. The ERM Committee and the ALCO review reports on the interest rate risk exposures described above. In addition, the ALCO reviews reports on stress tests and sensitivity analyses related to interest rate risk. These committees have various responsibilities related to managing nontrading market risk, including recommending, approving, and monitoring strategies that maintain risk positions within approved tolerance ranges. The A/LM policy provides the framework for the oversight and management of interest rate risk and is administered by the ALCO. The MRM, as the second line of defense, provides additional oversight.

LIBOR Transition

As disclosed in Item 1A. Risk Factors of our 2021 Form 10-K, LIBOR in its current form is no longer available for new contracts and the LIBOR Administrator will cease publishing all U.S. LIBOR tenors entirely after June 30, 2023. For most products, the most likely replacement benchmark is expected to be SOFR, which has been recommended by the ARRC, although uncertainty remains as to whether new benchmarks may evolve and a different credit sensitive benchmark could instead become the market-accepted benchmark. We have established an enterprise wide program to identify and address all LIBOR transition issues. We are collaborating closely with regulators and industry groups on the transition and closely monitoring developments in industry practices related to LIBOR alternatives. The goals of our LIBOR transition program are to:

- Identify and analyze LIBOR-based exposure and develop and execute transition strategies;
- Review and update near-term strategies and actions for our LIBOR-based business currently being written;
- Assess financial impact and risk while planning and executing mitigation actions;
- Understand and strategically address the current market approach to LIBOR relative to transition to alternative reference rates, including the impact of the Adjustable Interest Rate (LIBOR) Act;
- Determine and execute system and process work to be operationally ready for additional credit sensitive benchmarks; and
- Remediate remaining LIBOR contracts.

As part of the LIBOR transition program, we completed an initial risk assessment to help us identify the impact and risks associated with various products, systems, processes, and models. This risk assessment has assisted us in making necessary updates to our infrastructure and operational systems and processes to implement a replacement rate, and we are operationally ready for various SOFR-based benchmarks, including but not limited to, Daily Simple SOFR in Arrears, SOFR Compounded in Arrears, SOFR Averages in Advance, and Term SOFR. We are actively quoting alternative indexes other than LIBOR, such as SOFR and Term SOFR, and are originating new loans in those indexes. We have also originated a small number of new loans using credit sensitive rates in a limited and managed fashion.

We have compiled an inventory of existing legal contracts that are impacted by the LIBOR transition. We have assessed the LIBOR fallback language in those contracts, have devised a strategy to address the LIBOR transition for those contracts, and are in the process of remediating such contracts. Our progress is well-paced, especially as many of the legacy contracts were provided additional time to remediate due to announcements by the ICE Benchmark Administration, the FCA-regulated and authorized administrator of LIBOR, that certain LIBOR tenors may continue until June 2023 for legacy contract purposes. We expect to leverage recommendations made by the ARRC and ISDA that are tailored to our specific client segments. We are currently evaluating the impact of the LIBOR Act, which was enacted on March 15, 2022. The legislation provides a uniform national approach for replacing LIBOR in legacy contracts that do not provide for the use of a clearly defined or practicable replacement benchmark rate.

As of September 30, 2022, Key had the following instruments that were either directly or indirectly dependent on LIBOR.

Dollars in millions	Maturity through June 30, 2023	Maturity past June 30, 2023
Outstanding balance of loans	$ 4,610	$ 20,825
Notional value of derivative contracts	14,883	72,460
Investment securities	—	558
Debt and equity instruments	—	1,276

Net interest income simulation analysis. The primary tool we use to measure our interest rate risk is simulation analysis. For purposes of this analysis, we estimate our net interest income based on the current and projected composition of our on- and off-balance sheet positions, accounting for recent and anticipated trends in customer activity. The analysis also incorporates assumptions for the current and projected interest rate environments and balance sheet growth projections based on a most likely macroeconomic view. The modeling incorporates investment portfolio and swap portfolio balances consistent with management's desired interest rate risk positioning. The simulation model estimates the amount of net interest income at risk by simulating the change in net interest income that would occur if rates were to gradually increase or decrease from current levels over the next 12 months (subject to a floor on market interest rates at zero).

Figure 21 presents the results of the simulation analysis at September 30, 2022, and September 30, 2021. At September 30, 2022, our simulated impact to changes in interest rates was moderate. The exposure to declining rates has increased as a result of an increase in the current level of market rates and a larger balance sheet compared to the September 30, 2021, analysis. Current modeled exposure is within the Board approved tolerances. If a tolerance level is breached and determined inconsistent with risk appetite, the development of a remediation plan is required to reduce exposure back to within tolerance.

Figure 21. Simulated Change in Net Interest Income

	September 30, 2022		**September 30, 2021**	
Basis point change assumption	**-200**	**+200**	-200	+200
Assumed floor in market rates (in basis points)	**—**	**N/A**	—	N/A
Rising rate beta	**N/A**	**Low 40s**	N/A	High 20s
Tolerance level	**(5.50)%**	**(5.50)%**	(5.50)%	(5.50)%
Interest rate risk assessment	**(4.20)%**	**(1.76)%**	(4.06)%	5.50 %

+200 NII at risk beta sensitivity	**September 30, 2022**			
Beta assumption	**Low 40s**	**Mid 30s**	**Low 30s**	**High 20s**
Interest rate risk assessment	**(1.76)%**	**(0.79)%**	**0.18 %**	**1.15 %**

Simulation analyses produce a sophisticated estimate of interest rate exposure based on assumption inputs within the model. Assumptions are tailored to the specific interest rate environment and validated on a regular basis. However, actual results may differ from those derived in simulation analyses due to unanticipated changes to the balance sheet composition, customer behavior, product pricing, market interest rates, changes in management’s desired interest rate risk positioning, investment, funding and hedging activities or repercussions from exogenous events.

Regular stress tests and sensitivity analyses are performed on the model inputs that could materially change the resulting risk assessments. Assessments are performed using different yield curve shapes, including steepenings or flattenings of the curve, immediate changes in market interest rates, and changes in the relationship of money

market interest rates. Assessments are also performed on changes to the following assumptions: loan and deposit balances, the pricing of deposits without contractual maturities, changes in lending spreads, prepayments on loans and securities, investment, funding and hedging activities, and liquidity and capital management strategies.

The results of additional assessments indicate that net interest income could increase or decrease from the base simulation results presented in Figure 21. Net interest income is highly dependent on the timing, magnitude, frequency, and path of interest rate changes and the associated assumptions for deposit repricing relationships, lending spreads, and the balance behavior of transaction accounts. If fixed rate assets increase by $1 billion, or fixed rate liabilities decrease by $1 billion, then the benefit to rising rates would decrease by approximately 25 basis points. If the interest-bearing liquid deposit beta assumption increases or decreases by 5% (e.g., 40% to 45%), then the benefit to rising rates would decrease or increase by approximately 105 basis points.

The current interest rate risk position could fluctuate to higher or lower levels of risk depending on the competitive environment and client behavior that may affect the actual volume, mix, maturity, and repricing characteristics of loan and deposit flows. Corporate Treasury discretionary activities related to funding, investing, and hedging may also change as a result of changes in customer business flows or changes in management's desired interest rate risk positioning. As changes occur to both the configuration of the balance sheet and the outlook for the economy, management proactively evaluates hedging opportunities that may change the interest rate risk profile.

Simulations are also conducted that measure the effect of changes in market interest rates in the second and third years of a three-year horizon. These simulations are conducted in a similar manner to those based on a 12-month horizon. To capture longer-term exposures, changes in the EVE are calculated as discussed in the following section.

Economic value of equity modeling. EVE complements net interest income simulation analysis as it estimates risk exposure beyond 12-, 24-, and 36-month horizons. EVE modeling measures the extent to which the economic values of assets, liabilities, and off-balance sheet instruments may change in response to fluctuations in interest rates. EVE is calculated by subjecting the balance sheet to an immediate increase or decrease in interest rates, measuring the resulting change in the values of assets, liabilities, and off-balance sheet instruments, and comparing those amounts with the base case of the current interest rate environment. EVE policy limits are measured against a +200 basis point/policy decline scenario. The policy decline scenario is equal to the current Fed Target Rate capped at 200 basis points. As of September 30, 2022, the policy decline scenario is minus 175 basis points. This analysis is highly dependent upon assumptions applied to assets and liabilities with non-contractual maturities. Those assumptions are based on historical behaviors, as well as forward expectations. Remediation plans are similarly developed if the analysis indicates that the EVE will decrease by more than 15% in response to an immediate increase or decrease in interest rates. The position is within these guidelines as of September 30, 2022.

Management of interest rate exposure. The results of the various interest rate risk analyses are used to formulate A/LM strategies to achieve the desired risk profile while managing to objectives for capital adequacy and liquidity risk exposures. Specifically, risk positions are managed by purchasing securities, issuing term debt with floating or fixed interest rates, and using derivatives. Interest rate swaps and options are predominantly used, which modify the interest rate characteristics of certain assets and liabilities.

Figure 22 shows all swap positions held for A/LM purposes. These positions are used to convert the contractual interest rate index of agreed-upon amounts of assets and liabilities (i.e., notional amounts) to another interest rate index. For example, fixed-rate debt is converted to a floating rate through a "receive fixed/pay variable" interest rate swap. The volume, maturity, and mix of portfolio swaps change frequently to reflect broader A/LM objectives and the balance sheet positions to be hedged. For more information about how interest rate swaps are used to manage the risk profile, see Note 7 ("Derivatives and Hedging Activities").

Figure 22. Portfolio Swaps by Interest Rate Risk Management Strategy

	September 30, 2022					December 31, 2021	
			Weighted-Average				
Dollars in millions	Notional Amount	Fair Value	Maturity (Years)	Receive Rate	Pay Rate	Notional Amount	Fair Value
Receive fixed/pay variable — conventional A/LM (a)	$ 26,250	$ (1,490)	2.2	1.3 %	2.9 %	$ 23,950	$ 9
Receive fixed/pay variable — conventional debt	10,045	(607)	4.3	2.0	2.6	7,432	137
Receive fixed/pay variable — forward A/LM	3,850	(137)	4.2	2.9	4.0	850	(1)
Pay fixed/receive variable — conventional debt	50	1	5.8	2.3	3.6	50	(7)
Pay fixed/receive variable — forward securities	—	—	—	—	—	6,280	135
Pay fixed/receive variable — securities	405	51	4.7	3.3	0.7		
Total portfolio swaps	$ 40,600	$ (2,182) (b)	2.9	1.6 %	2.9 %	$ 38,562	$ 273 (b)

(a) Portfolio swaps designated as A/LM are used to manage interest rate risk tied to both assets and liabilities.
(b) Excludes accrued interest of $75 million and $108 million at September 30, 2022, and December 31, 2021, respectively.

Liquidity risk management

Liquidity risk, which is inherent in the banking industry, is measured by our ability to accommodate liability maturities and deposit withdrawals, meet contractual obligations, and fund new business opportunities at a reasonable cost, in a timely manner, and without adverse consequences. Liquidity management involves maintaining sufficient and diverse sources of funding to accommodate planned, as well as unanticipated, changes in assets and liabilities under both normal and adverse conditions.

Factors affecting liquidity

Our liquidity could be adversely affected by both direct and indirect events. An example of a direct event would be a downgrade in our public credit ratings by a rating agency. Examples of indirect events (events unrelated to us) that could impair our access to liquidity would be an act of terrorism or war, natural disasters, global pandemics (including COVID-19), political events, or the default or bankruptcy of a major corporation, mutual fund, or hedge fund. Similarly, market speculation, or rumors about us or the banking industry in general, may adversely affect the cost and availability of normal funding sources. See Part I, Item 1A. Risk Factors section “IV. Liquidity Risk” in our 2021 Form 10-K for a discussion of how the COVID-19 global pandemic has impacted our liquidity and may continue to impact it in the future.

Our credit ratings at September 30, 2022, are shown in Figure 23. We believe these credit ratings, under normal conditions in the capital markets, would enable KeyCorp or KeyBank to issue fixed income securities to investors.

Figure 23. Credit Ratings

September 30, 2022	Short-Term Borrowings	Long-Term Deposits [a]	Senior Long-Term Debt	Subordinated Long-Term Debt	Capital Securities	Preferred Stock
KEYCORP						
Standard & Poor’s	A-2	N/A	BBB+	BBB	BB+	BB+
Moody’s	P-2	N/A	Baa1	Baa1	Baa2	Baa3
Fitch Ratings, Inc.	F1	N/A	A-	N/A	BB+	BB+
DBRS, Inc.	R-1 (low)	N/A	A	A (low)	A (low)	BBB
KEYBANK						
Standard & Poor’s	A-2	N/A	A-	BBB+	N/A	N/A
Moody’s	P-2	P-1/A1	A3	Baa1	N/A	N/A
Fitch Ratings, Inc.	F1	F1/A	A-	BBB+	N/A	N/A
DBRS, Inc.	R-1 (middle)	A (high)	A (high)	A	N/A	N/A

(a) P-1 rating assigned by Moody’s is specific to KeyBank’s short-term bank deposit ratings. F1 assigned by Fitch Ratings, Inc. is specific to KeyBank’s short-term deposit ratings.

Sources of liquidity

Our primary sources of funding for KeyBank include customer deposits, wholesale funding, and liquid assets. As of September 30, 2022, our consolidated loan-to-deposit ratio was 81%. In addition, we also have access to various sources of wholesale funding, maintain a portfolio of liquid assets, and have borrowing capacity at the FHLB and Federal Reserve Bank of Cleveland. Our liquid asset portfolio at September 30, 2022, totaled $37.7 billion, consisting of $33.6 billion of unpledged securities, $12.1 million of securities available for secured funding at the FHLB, and $4.1 billion of net balances of federal funds sold and balances in our Federal Reserve account. Additionally, as of September 30, 2022, our unused borrowing capacity secured by loan collateral was $32.1 billion at the Federal Reserve Bank of Cleveland and $7.0 billion at the FHLB. During the third quarter of 2022, our

secured term borrowings increased $2.4 billion as additional advances were taken. If the cash flows needed to support operating and investing activities are not satisfied by deposit balances, we rely on wholesale funding or on-balance sheet liquid reserves. Conversely, excess cash generated by operating, investing, and deposit-gathering activities may be used to repay outstanding debt or invest in liquid assets. On August 8, 2022, KeyBank issued two notes under the bank note program: $1.25 billion of Fixed Rate Senior Bank Notes due August 8, 2025, and $750 million of Fixed Rate Subordinated Bank Notes due August 8, 2032.

Liquidity for KeyCorp

The primary source of liquidity for KeyCorp is from subsidiary dividends, primarily from KeyBank. KeyCorp has sufficient liquidity when it can service its debt; support customary corporate operations and activities (including acquisitions); support occasional guarantees of subsidiaries' obligations in transactions with third parties at a reasonable cost, in a timely manner, and without adverse consequences; and fund capital distributions in the form of dividends and share buybacks.

At September 30, 2022, KeyCorp held $3.3 billion in cash, which we projected to be sufficient to meet our projected obligations, including the repayment of our maturing debt obligations for the periods prescribed by our risk tolerance.

Typically, KeyCorp meets its liquidity requirements through regular dividends from KeyBank, supplemented with term debt. On May 23, 2022, KeyCorp issued $600 million of 3.878% Fixed-to-Floating Senior Notes due May 23, 2025 and $750 million of 4.789% Fixed-to-Floating Senior Notes due June 1, 2033. The fixed rate periods for each issuance are effective through May 23, 2024, and June 1, 2032, respectively. Additionally, on August 24, 2022, KeyCorp issued $600 million of 6.2% fixed rate reset perpetual non-cumulative preferred stock. During the third quarter of 2022, KeyBank paid no cash dividends to KeyCorp. As of September 30, 2022, KeyBank had regulatory capacity to pay $2.1 billion in dividends to KeyCorp without prior regulatory approval.

Our liquidity position and recent activity

Over the past quarter, our liquid asset portfolio, which includes overnight and short-term investments, as well as unencumbered, high quality liquid securities held as protection against a range of potential liquidity stress scenarios, has increased primarily from an increase in cash balances. The liquid asset portfolio continues to exceed the amount that we estimate would be necessary to manage through an adverse liquidity event by providing sufficient time to develop and execute a longer-term solution.

From time to time, KeyCorp or KeyBank may seek to retire, repurchase, or exchange outstanding debt, capital securities, preferred shares, or Common Shares through cash purchase, privately negotiated transactions or other means. Additional information on repurchases of Common Shares by KeyCorp is included in Part II, Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities beginning on page 41 of our 2021 Form 10-K and Part II, Item 2 of this Form 10-Q. Such transactions depend on prevailing market conditions, our liquidity and capital requirements, contractual restrictions, regulatory requirements, and other factors. The amounts involved may be material, individually or collectively.

The Consolidated Statements of Cash Flows summarize our sources and uses of cash by type of activity for the nine-month periods ended September 30, 2022, and September 30, 2021.

For more information regarding liquidity governance structure, factors affecting liquidity, management of liquidity risk at KeyBank and KeyCorp, long-term liquidity strategies, and other liquidity programs, see "Liquidity Risk Management" beginning on page 81 of our 2021 Form 10-K.

Credit risk management

Credit risk is the risk of loss arising from an obligor's inability or failure to meet contractual payment or performance terms. Like other financial services institutions, we make loans, extend credit, distribute credit risk, purchase securities, provide financial and payments products, and enter into financial derivative contracts, all of which have related credit risk.

Credit policy, approval, and evaluation

We manage credit risk exposure through a multifaceted program. The Credit Risk Committee approves management credit policies and recommends significant credit policies to the Enterprise Risk Management Committee, the KeyBank Board, and the Risk Committee of the KeyCorp Board for approval. These policies are communicated throughout the organization to foster a consistent approach to granting credit.

Our credit risk management team and certain individuals within our lines of business, to whom credit risk management has delegated limited credit authority, are responsible for credit approval. Individuals with assigned credit authority are authorized to grant exceptions to credit policies. It is not unusual to make exceptions to established policies when mitigating circumstances dictate, however, a corporate level tolerance has been established to keep exceptions at an acceptable level based upon portfolio and economic considerations.

Our credit risk management team uses risk models to evaluate consumer loans. These models, known as scorecards, forecast the probability of serious delinquency and default for an applicant. The scorecards are embedded in the application processing system, which allows for real-time scoring and automated decisions for many of our products. We periodically validate the loan scoring processes.

We maintain an active concentration management program to mitigate concentration risk in our credit portfolios. For individual obligors, we employ a sliding scale of exposure, known as hold limits, which is dictated by the type of loan and strength of the borrower.

Allowance for loan and lease losses

We estimate the appropriate level of the ALLL on at least a quarterly basis. The methodology used is described in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Allowance for Loan and Lease Losses” beginning on page 109 of our 2021 Form 10-K. Briefly, the ALLL estimate uses various models and estimation techniques based on our historical loss experience, current borrower characteristics, current economic conditions, reasonable and supportable forecasts and other relevant factors. The ALLL at September 30, 2022, represents our best estimate of the lifetime expected credit losses inherent in the loan portfolio at that date.

As shown in Figure 24, our ALLL from continuing operations increased by $83 million, or 7.8%, from December 31, 2021. The commercial ALLL increased by $51 million, or 7.4%, from December 31, 2021, through September 30, 2022. Our consumer ALLL increased by $32 million, or 8.6%, from December 31, 2021, through September 30, 2022. Refer to Note 4 (“Asset Quality”) within this report for further discussion of changes in the ALLL.

Figure 24. Allocation of the Allowance for Loan and Lease Losses

	September 30, 2022			December 31, 2021		
Dollars in millions	Amount	Percent of Allowance to Total Allowance	Percent of Loan Type to Total Loans	Amount	Percent of Allowance to Total Allowance	Percent of Loan Type to Total Loans
Commercial and industrial	$ 519	45.4 %	49.0 %	$ 445	41.9 %	49.6 %
Commercial real estate:						
Commercial mortgage	168	14.7	14.1	182	17.2	13.9
Construction	22	1.9	2.0	29	2.7	2.0
Total commercial real estate loans	190	16.6	16.1	211	19.9	15.9
Commercial lease financing	30	2.6	3.3	32	3.0	4.0
Total commercial loans	739	64.6	68.4	688	64.8	69.5
Real estate — residential mortgage	137	12.0	17.9	95	9.0	15.5
Home equity loans	93	8.1	6.8	110	10.4	8.3
Consumer direct loans	112	9.8	5.9	105	9.9	5.6
Credit cards	61	5.3	0.9	61	5.7	1.0
Consumer indirect loans	2	0.2	0.1	2	0.2	0.1
Total consumer loans	405	35.4	31.6	373	35.2	30.5
Total ALLL — continuing operations [a]	$ 1,144	100.0 %	100.0 %	$ 1,061	100.0 %	100.0 %

(a) Excludes allocations of the ALLL related to the discontinued operations of the education lending business in the amount of $22 million at September 30, 2022, and $28 million at December 31, 2021.

Net loan charge-offs

Figure 25 shows the trend in our net loan charge-offs by loan type, while the composition of loan charge-offs and recoveries by type of loan is presented in Figure 27. Figure 26 shows the ratios of net charge-offs by loan category as a percentage of the respective average loan balance.

Net loan charge-offs for the three months ended September 30, 2022, increased $14 million compared to the year-ago quarter. For the remainder of 2022, we expect net loan charge-offs to average loans to range between 15 - 25 basis points.

Figure 25. Net Loan Charge-offs from Continuing Operations [a]

	2022			2021	
Dollars in millions	**Third**	**Second**	**First**	**Fourth**	**Third**
Commercial and industrial	**$ 36**	$ 31	$ 19	$ 10	$ 7
Real estate — Commercial mortgage	**1**	2	3	—	(1)
Real estate — Construction	**—**	(1)	—	—	—
Commercial lease financing	**(1)**	(1)	2	1	(5)
Total commercial loans	**36**	31	24	11	1
Real estate — Residential mortgage	**—**	(3)	(1)	(2)	(3)
Home equity loans	**(1)**	(1)	—	1	(1)
Consumer direct loans	**4**	9	5	5	5
Credit cards	**5**	7	5	4	5
Consumer indirect loans	**(1)**	1	—	—	22
Total consumer loans	**7**	13	9	8	28
Total net loan charge-offs	**$ 43**	$ 44	$ 33	$ 19	$ 29
Net loan charge-offs to average loans	**.15 %**	.16 %	.13 %	.08 %	.11 %
Net loan charge-offs from discontinued operations — education lending business	**$ —**	$ —	$ 2	$ 1	$ —

(a) Credit amounts indicate that recoveries exceeded charge-offs.

Figure 26. Net Loan Charge-offs to Average Loans from Continuing Operations [a]

	2022			2021	
Dollars in millions	**Third**	**Second**	**First**	**Fourth**	**Third**
Commercial and industrial	**0.25 %**	0.23 %	0.15 %	0.08 %	0.06 %
Real estate — commercial mortgage	**0.02**	0.05	0.08	—	(0.03)
Real estate — construction	**—**	(0.19)	—	—	—
Commercial lease financing	**(0.10)**	(0.11)	0.21	0.10	(0.51)
Total commercial loans	**0.18**	0.17	0.13	0.06	0.01
Real estate — residential mortgage	**—**	(0.07)	(0.02)	(0.05)	(0.09)
Home equity loans	**(0.05)**	(0.05)	—	0.05	(0.04)
Consumer direct loans	**0.23**	0.55	0.34	0.36	0.38
Credit cards	**2.05**	2.98	2.18	1.69	2.16
Consumer indirect loans	**(7.63)**	6.80	—	—	3.17
Total consumer loans	**0.08**	0.15	0.12	0.11	0.36
Total net loan charge-offs	**0.15 %**	0.16 %	0.13 %	0.08 %	0.11 %

(a) Credit amounts indicate that recoveries exceeded charge-offs.

Figure 27. Summary of Loan and Lease Loss Experience from Continuing Operations

Dollars in millions	Three months ended September 30, 2022	Three months ended September 30, 2021	Nine months ended September 30, 2022	Nine months ended September 30, 2021
Average loans outstanding	**$ 114,418**	$ 100,138	**$ 109,144**	$ 100,562
Allowance for loan and lease losses at beginning of period	**1,099**	1,220	**1,061**	1,626
Loans charged off:				
Commercial and industrial	**49**	27	**118**	141
Real estate — commercial mortgage	**3**	—	**10**	39
Real estate — construction	**—**	—	**—**	—
Commercial lease financing	**—**	1	**2**	5
Total commercial loans	**52**	28	**130**	185
Real estate — residential mortgage	**1**	(2)	**(2)**	(1)
Home equity loans	**—**	1	**1**	7
Consumer direct loans	**8**	7	**25**	22
Credit cards	**7**	6	**22**	21
Consumer indirect loans	**—**	26	**2**	38
Total consumer loans	**16**	38	**48**	87
Total loans charged off	**68**	66	**178**	272
Recoveries:				
Commercial and industrial	**13**	20	**32**	60
Real estate — commercial mortgage	**2**	1	**4**	8
Real estate — construction	**—**	—	**1**	—
Commercial lease financing	**1**	6	**2**	7
Total commercial loans	**16**	27	**39**	75
Real estate — residential mortgage	**1**	1	**2**	2
Home equity loans	**1**	2	**3**	4
Consumer direct loans	**4**	2	**7**	6
Credit cards	**2**	1	**5**	6
Consumer indirect loans	**1**	4	**2**	14
Total consumer loans	**9**	10	**19**	32
Total recoveries	**25**	37	**58**	107
Net loan charge-offs	**(43)**	(29)	**(120)**	(165)
Provision (credit) for loan and lease losses	**88**	(107)	**203**	(377)
Allowance for loan and lease losses at end of period	**$ 1,144**	$ 1,084	**$ 1,144**	$ 1,084
Liability for credit losses on off-balance sheet exposures at beginning of period	**173**	152	**160**	197
Provision (credit) for losses on off-balance sheet exposures	**21**	—	**34**	(45)
Liability for credit losses on off-balance sheet exposures at end of period[(a)]	**$ 194**	$ 152	**$ 194**	$ 152
Total allowance for credit losses at end of period	**$ 1,338**	$ 1,236	**$ 1,338**	$ 1,236
Net loan charge-offs to average total loans	**.15 %**	.11 %	**.15 %**	.22 %
Allowance for loan and lease losses to period-end loans	**.98**	1.10	**.98**	1.10
Allowance for credit losses to period-end loans	**1.15**	1.25	**1.15**	1.25
Allowance for loan and lease losses to nonperforming loans	**293.3**	195.7	**293.3**	195.7
Allowance for credit losses to nonperforming loans	**343.1**	223.1	**343.1**	223.1
Discontinued operations — education lending business:				
Loans charged off	**$ 1**	$ 1	**$ 4**	$ 3
Recoveries	**1**	1	**2**	2
Net loan charge-offs	**$ —**	$ —	**$ (2)**	$ (1)

(a) Included in "Accrued expense and other liabilities" on the balance sheet.

Nonperforming assets

Figure 28 shows the composition of our nonperforming assets. As shown in Figure 28, nonperforming assets at September 30, 2022, decreased $70 million from December 31, 2021. This decrease was primarily driven by continual declines in our nonperforming loan balance.

See Note 1 (“Summary of Significant Accounting Policies”) of our 2021 Form 10-K under the headings “Nonperforming Loans,” “Impaired Loans,” and “Allowance for Loan and Lease Losses” for a summary of our nonaccrual and charge-off policies.

Figure 28. Summary of Nonperforming Assets and Past Due Loans from Continuing Operations

Dollars in millions	September 30, 2022	June 30, 2022	March 31, 2022	December 31, 2021	September 30, 2021
Commercial and industrial	$ 169	$ 197	$ 186	$ 191	$ 253
Real estate — commercial mortgage	34	35	40	44	49
Real estate — construction	—	—	—	—	—
Total commercial real estate loans [a]	34	35	40	44	49
Commercial lease financing	2	2	3	4	5
Total commercial loans [b]	205	234	229	239	307
Real estate — residential mortgage	66	67	73	72	93
Home equity loans	112	120	129	135	146
Consumer direct loans	3	3	4	4	4
Credit cards	3	3	3	3	3
Consumer indirect loans	1	2	1	1	1
Total consumer loans	185	195	210	215	247
Total nonperforming loans	390	429	439	454	554
OREO	12	9	8	8	8
Nonperforming loans held for sale	17	25	20	24	35
Other nonperforming assets	—	—	—	3	2
Total nonperforming assets	$ 419	$ 463	$ 467	$ 489	$ 599
Accruing loans past due 90 days or more	$ 47	$ 41	$ 55	$ 68	$ 82
Accruing loans past due 30 through 89 days	187	137	122	165	164
Restructured loans — accruing and nonaccruing [c]	254	216	219	220	270
Restructured loans included in nonperforming loans [c]	134	94	98	99	146
Nonperforming assets from discontinued operations — education lending business	3	3	4	4	4
Nonperforming loans to period-end portfolio loans	.34 %	.38 %	.41 %	.45 %	.56 %
Nonperforming assets to period-end portfolio loans plus OREO and other nonperforming assets	.36	.41	.44	.48	.61

(a) See Figure 9 and the accompanying discussion in the “Loans and loans held for sale” section for more information related to our commercial real estate loan portfolio.
(b) See Figure 8 and the accompanying discussion in the “Loans and loans held for sale” section for more information related to our commercial loan portfolio.
(c) Restructured loans (i.e., TDRs) are those for which Key, for reasons related to a borrower’s financial difficulties, grants a concession to the borrower that it would not otherwise consider. These concessions are made to improve the collectability of the loan and generally take the form of a reduction of the interest rate, extension of the maturity date or reduction in the principal balance.

Figure 29 shows the types of activity that caused the change in our nonperforming loan balance during each of the last five quarters.

Figure 29. Summary of Changes in Nonperforming Loans from Continuing Operations

	2022			2021	
Dollars in millions	Third	Second	First	Fourth	Third
Balance at beginning of period	$ 429	$ 439	$ 454	$ 554	$ 694
Loans placed on nonaccrual status	80	118	87	116	116
Charge-offs	(68)	(59)	(50)	(51)	(66)
Loans sold	(3)	(8)	—	(38)	(17)
Payments	(29)	(35)	(27)	(68)	(136)
Transfers to OREO	(1)	(2)	(1)	(1)	(1)
Loans returned to accrual status	(18)	(24)	(24)	(58)	(36)
Balance at end of period	$ 390	$ 429	$ 439	$ 454	$ 554

Operational and compliance risk management

Like all businesses, we are subject to operational risk, which is the risk of loss resulting from human error or malfeasance, inadequate or failed internal processes and systems, and external events. These events include, among other things, threats to our cybersecurity, as we are reliant upon information systems and the internet to conduct our business activities. Operational risk intersects with compliance risk, which is the risk of loss from violations of, or noncompliance with, laws, rules and regulations, prescribed practices, and ethical standards. This includes our compliance with lending programs established by the CARES Act, including the PPP and Main Street Lending Program. Under the Dodd-Frank Act, large financial companies like Key are subject to heightened prudential standards and regulation. This heightened level of regulation has increased our operational risk. While operational and compliance risk are separate risk disciplines in KeyCorp's ERM framework, losses and/or additional regulatory compliance costs are included in operational loss reporting and could take the form of explicit charges, increased operational costs, harm to our reputation, or foregone opportunities.

We seek to mitigate operational risk through identification and measurement of risk, alignment of business strategies with risk appetite and tolerance, and a system of internal controls and reporting. We continuously strive to strengthen our system of internal controls to improve the oversight of our operational risk and to ensure compliance with laws, rules, and regulations. For example, an operational event database tracks the amounts and sources of operational risk and losses. This tracking mechanism helps to identify weaknesses and to highlight the need to take corrective action. We also rely upon software programs designed to assist in assessing operational risk and monitoring our control processes. This technology has enhanced the reporting of the effectiveness of our controls to senior management and the Board.

The Operational Risk Management Program provides the framework for the structure, governance, roles, and responsibilities, as well as the content, to manage operational risk for Key. The Compliance Risk Management Program serves the same function in managing compliance risk for Key. The Operational Risk Committee and the Compliance Risk Committee support the ERM Committee by identifying early warning events and trends, escalating emerging risks, and discussing forward-looking assessments. Both the Operational Risk Committee and the Compliance Risk Committee include attendees from each of the Three Lines of Defense. Primary responsibility for managing and monitoring internal control mechanisms lies with the managers of our various lines of business. The Operational Risk Committee and Compliance Risk Committee are senior management committees that oversee our level of operational and compliance risk and direct and support our operational and compliance infrastructure and related activities. These committees and the Operational Risk Management and Compliance Risk Management functions are an integral part of our ERM Program. Our Risk Review function regularly assesses the overall effectiveness of our Operational Risk Management and Compliance Risk Management Programs and our system of internal controls. Risk Review reports the results of reviews on internal controls and systems to senior
management and the Risk and Audit Committees and independently supports the Risk Committee's oversight of these controls.

Cybersecurity

We maintain comprehensive Cyber Incident Response Plans, and we devote significant time and resources to maintaining and regularly updating our technology systems and processes to protect the security of our computer systems, software, networks, and other technology assets against attempts to obtain unauthorized access to confidential information, destroy data, disrupt or degrade service, sabotage systems, shut down access to systems for ransom, or cause other damage. As the threat landscape continues to evolve, critical infrastructure, including financial institutions, remains a top target for cyberattacks. The significant increase in remote working by our employees and third-party service providers inherently introduces additional risk. Additionally, we face heightened risk of cyberattacks in the near term because of recent geopolitical events, which may result in increased attacks against U.S. critical infrastructure, including financial institutions. Cyberattacks may include, but are not limited to, attacks that are intended to disrupt or disable banking services and prevent banking transactions, attempts to breach the security of systems and data, and social engineering attempts aimed at tricking employees and clients into providing sensitive information or executing financial transactions.

We also face cyberattack risks related to our third-party service providers. Cyberattacks successfully compromising or circumventing the security of the systems of our third-party service providers have resulted in, and could again in the future result in, negative consequences to us, including interfering with our third-party providers' ability to fulfill their contractual obligations to us, an interruption in our business processes, or the disclosure or misappropriation of confidential information of us or that of our clients These cyberattacks may result in regulatory consequences,

reputational harm or financial loss or liability that could adversely affect our financial condition or results of operations. Recent high-profile cyberattacks have targeted retailers, credit bureaus, and other businesses for the purpose of acquiring the confidential information (including personal, financial, and credit card information) of their customers. Recently, there have also been numerous highly publicized cases where hackers requested ransom payments in exchange for not disclosing customer information or to restore company access to locked systems. We have incurred, and may again incur, expenses related to the investigation of cyberattacks involving third-party providers or related to the protection of our clients from identity theft as a result of such attacks. We have also incurred, and may continue to incur, expenses to enhance our systems or processes to protect against cyber or other security incidents.

Risks and exposures related to cyberattacks are expected to remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats, as well as due to the expanding use of Internet banking, mobile banking, and other technology-based products and services by us and our clients. To date, Key has not experienced material disruption of our operations, or material harm to our client base, as a result of the heightened threat landscape of cyberattacks.

As described in more detail starting on page 73 of our 2021 Form 10-K under the heading “Risk Management — Overview,” the Board serves in an oversight capacity ensuring that Key’s risks are managed in a manner that is effective and balanced and adds value for the shareholders. The Board’s Risk Committee has primary oversight for enterprise-wide risk at KeyCorp, including operational risk (which includes cybersecurity). The Risk Committee reviews and provides oversight of management’s activities related to the enterprise-wide risk management framework, including cyber-related risk. Board members are updated on cybersecurity matters at each regularly-scheduled Board meeting. The ERM Committee, chaired by the Chief Executive Officer and comprising other senior level executives, is responsible for managing risk (including cyber-related risk) and ensuring that the corporate risk profile is managed in a manner consistent with our risk appetite. The ERM Committee reports to the Board’s Risk Committee.

GAAP to Non-GAAP Reconciliations

Non-GAAP financial measures have inherent limitations, are not required to be uniformly applied, and are not audited. Although these non-GAAP financial measures are frequently used by investors to evaluate a company, they have limitations as analytical tools, and should not be considered in isolation, nor as a substitute for analyses of results as reported under GAAP.

The tangible common equity ratio and the return on tangible common equity ratio have been a focus for some investors, and management believes that these ratios may assist investors in analyzing Key’s capital position without regard to the effects of intangible assets and preferred stock. Since analysts and banking regulators may assess our capital adequacy using tangible common equity, we believe it is useful to enable investors to assess our capital adequacy on these same bases.

Dollars in millions	Three months ended 9/30/2022	6/30/2022	3/31/2022	12/31/2021	9/30/2021	Nine months ended 9/30/2022	9/30/2021
Tangible common equity to tangible assets at period-end							
Key shareholders' equity (GAAP)	**$ 13,290**	$ 14,427	$ 15,308	$ 17,423	$ 17,510		
Less: Intangible assets [a]	**2,856**	2,868	2,810	2,820	2,814		
Preferred Stock [b]	**2,446**	1,856	1,856	1,856	1,856		
Tangible common equity (non-GAAP)	**$ 7,988**	$ 9,703	$ 10,642	$ 12,747	$ 12,840		
Total assets (GAAP)	**$ 190,051**	$ 187,008	$ 181,221	$ 186,346	$ 187,035		
Less: Intangible assets [a]	**2,856**	2,868	2,810	2,820	2,814		
Tangible assets (non-GAAP)	**$ 187,195**	$ 184,140	$ 178,411	$ 183,526	$ 184,221		
Tangible common equity to tangible assets ratio (non-GAAP)	**4.3 %**	5.3 %	6.0 %	6.9 %	7.0 %		
Average tangible common equity							
Average Key shareholders' equity (GAAP)	**$ 14,614**	$ 14,398	$ 16,780	$ 17,471	$ 17,899	**$ 15,256**	$ 17,843
Less: Intangible assets (average) [c]	**2,863**	2,827	2,814	2,814	2,823	**2,835**	2,834
Preferred Stock (average)	**2,148**	1,900	1,900	1,900	1,900	**1,984**	1,900
Average tangible common equity (non-GAAP)	**$ 9,603**	$ 9,671	$ 12,066	$ 12,757	$ 13,176	**$ 10,437**	$ 13,109
Return on average tangible common equity from continuing operations							
Net income (loss) from continuing operations attributable to Key common shareholders (GAAP)	**$ 513**	$ 504	$ 420	$ 601	$ 616	**$ 1,437**	$ 1,905
Average tangible common equity (non-GAAP)	**9,603**	9,671	12,066	12,757	13,176	**10,437**	13,109
Return on average tangible common equity from continuing operations (non-GAAP)	**21.2 %**	20.9 %	14.1 %	18.7 %	18.5 %	**18.41 %**	19.43 %
Return on average tangible common equity consolidated							
Net income (loss) attributable to Key common shareholders (GAAP)	**$ 515**	$ 507	$ 421	$ 603	$ 618	**$ 1,443**	$ 1,916
Average tangible common equity (non-GAAP)	**9,603**	9,671	12,066	12,757	13,176	**10,437**	13,109
Return on average tangible common equity consolidated (non-GAAP)	**21.3 %**	21.0 %	14.2 %	18.8 %	18.6 %	**18.49 %**	19.54 %

(a) For the three months ended September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021, and September 30, 2021, intangible assets exclude $2 million, $2 million, $2 million, $3 million, and $3 million, respectively, of period-end purchased credit card receivables.
(b) Net of capital surplus.
(c) For the three months ended September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021, and September 30, 2021, average intangible assets exclude $2 million, $2 million, $3 million, $3 million, and $3 million, respectively, of average purchased credit card receivables. For the nine months ended September 30, 2022, and September 30, 2021, average intangible assets exclude $2 million, and $4 million, respectively, of average purchased credit card receivables.

The cash efficiency ratio is a ratio of two non-GAAP performance measures, adjusted noninterest expense and total taxable-equivalent revenue. Accordingly, there is no directly comparable GAAP performance measure. The cash efficiency ratio excludes the impact of our intangible asset amortization from the calculation. We believe this ratio provides greater consistency and comparability between our results and those of our peer banks. Additionally, this ratio is used by analysts and investors to evaluate how effectively management is controlling noninterest expenses in generating revenue, as they develop earnings forecasts and peer bank analysis.

Dollars in millions	Three months ended 9/30/2022	6/30/2022	3/31/2022	12/31/2021	9/30/2021	Nine months ended 9/30/2022	9/30/2021
Cash efficiency ratio							
Noninterest expense (GAAP)	**$ 1,106**	$ 1,078	$ 1,070	$ 1,170	$ 1,112	**$ 3,254**	$ 3,259
Less: Intangible asset amortization	**12**	12	11	14	15	**35**	44
Adjusted noninterest expense (non-GAAP)	**$ 1,094**	$ 1,066	$ 1,059	$ 1,156	$ 1,097	**$ 3,219**	$ 3,215
Net interest income (GAAP)	**$ 1,196**	$ 1,097	$ 1,014	$ 1,033	$ 1,016	**$ 3,307**	$ 3,038
Plus: Taxable-equivalent adjustment	**7**	7	6	5	9	**20**	22
Noninterest income (GAAP)	**683**	688	676	909	797	**2,047**	2,285
Total taxable-equivalent revenue (non-GAAP)	**$ 1,886**	$ 1,792	$ 1,696	$ 1,947	$ 1,822	**$ 5,374**	$ 5,345
Cash efficiency ratio (non-GAAP)	**58.0 %**	59.5 %	62.4 %	59.4 %	60.2 %	**59.9 %**	60.1 %

Critical Accounting Policies and Estimates

Our business is dynamic and complex. Consequently, we must exercise judgment in choosing and applying accounting policies and methodologies. These choices are critical – not only are they necessary to comply with GAAP, they also reflect our view of the appropriate way to record and report our overall financial performance. All accounting policies are important, and all policies described in Note 1 ("Summary of Significant Accounting Policies") beginning on page 107 of our 2021 Form 10-K should be reviewed for a greater understanding of how we record and report our financial performance. Note 1 ("Basis of Presentation and Accounting Policies") of this report should also be reviewed for more information on accounting standards that have been adopted during the period.

In our opinion, some accounting policies are more likely than others to have a critical effect on our financial results and to expose those results to potentially greater volatility. These policies apply to areas of relatively greater business importance or require us to exercise judgment and to make assumptions and estimates that affect amounts reported in the financial statements. Because these assumptions and estimates are based on current circumstances, they may prove to be inaccurate, or we may find it necessary to change them.

We rely heavily on the use of judgment, assumptions, and estimates to make a number of core decisions, including accounting for the ALLL; contingent liabilities, guarantees and income taxes; derivatives and related hedging activities; and assets and liabilities that involve valuation methodologies. In addition, we may employ outside valuation experts to assist us in determining fair values of certain assets and liabilities. A brief discussion of each of these areas appears on pages 91 through 95 of our 2021 Form 10-K. During the three months ended September 30, 2022, we did not significantly alter the manner in which we applied our critical accounting policies or developed related assumptions and estimates.

Accounting and Reporting Developments

Accounting Guidance Pending Adoption at September 30, 2022

Standard	Required Adoption	Description	Effect on Financial Statements or Other Significant Matters
ASU 2021-08, Business Combinations (Topic 805)	January 1, 2023 Early adoption is permitted.	At the acquisition date, an acquirer must account for any acquired revenue contracts in accordance with Topic 606 as if it had originated the contracts (i.e. measure contract assets and liabilities, generally consistent with acquiree's financial statements). The guidance should be applied on a prospective basis.	The guidance is not expected to have a material impact on Key's financial condition or results of operations.
ASU 2022-01, Derivatives and Hedging (Topic 815)	January 1, 2023 Early adoption is permitted.	This guidance allows entities to apply the same portfolio hedging method to both prepayable and nonprepayable financial assets. It also allows multiple hedged layers to be designated for a single closed portfolio of financial assets or one or more beneficial interests secured by a portfolio of financial instruments. If a breach is anticipated, an entity is required to partially or fully dedesignate a hedged layer or layers until a breach is no longer anticipated. There are additional requirements and enhanced disclosures related to basis adjustments. The guidance should be applied on a prospective, retrospective or modified retrospective basis depending on the amendment.	The guidance is not expected to have a material impact on Key's financial condition or results of operations.
ASU 2022-02, Financial Instruments—Credit Losses (Topic 326)	January 1, 2023 Early adoption is permitted.	The amendments eliminate current Troubled Debt Restructuring (TDR) guidance and instead require entities to apply the loan refinancing and restructuring guidance to determine whether a modification results in a new loan or is a continuation of an existing loan. Entities must disclose current-period gross write-offs on an amortized cost basis by credit quality indicator and class of financing receivable by year of origination. The guidance should be applied on a prospective basis except for amendments related to recognition and measurement of TDRs, where a modified retrospective transition method is optional.	The guidance is not expected to have a material impact on Key's financial condition or results of operations. Key is still evaluating the impact on its financial statement disclosures.
ASU 2022-03, Fair Value Measurement - Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions (Topic 820)	December 15, 2023 Early adoption is permitted.	The amendments clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and is not considered in measuring fair value. Entities cannot, as a separate unit of account, recognize and measure a contractual sale restriction. The amendments require disclosures for equity securities subject to contractual restrictions including; the fair value of equity securities subject to contractual sale restrictions reflected in the balance sheet, the nature and remaining duration of the restriction(s) and the circumstances that could cause a lapse in the restriction(s). The guidance should be applied prospectively with any adjustments from the adoption of the amendments recognized in earnings and disclosed on the date of adoption.	The guidance is not expected to have a material impact on Key's financial condition or results of operations.

Table of contents

Item 1. Financial Statements

Consolidated Balance Sheets

Dollars in millions, except per share data		September 30, 2022		December 31, 2021
		(Unaudited)		
ASSETS				
Cash and due from banks	$	**717**	$	913
Short-term investments		**4,896**		11,010
Trading account assets		**1,068**		701
Securities available for sale		**40,000**		45,364
Held-to-maturity securities (fair value: $7,596 and $7,665)		**8,163**		7,539
Other investments		**1,272**		639
Loans, net of unearned income of $326 and $373		**116,191**		101,854
Less: Allowance for loan and lease losses		**(1,144)**		(1,061)
Net loans		**115,047**		100,793
Loans held for sale [(a)]		**1,048**		2,729
Premises and equipment		**629**		681
Goodwill		**2,752**		2,693
Other intangible assets		**106**		130
Corporate-owned life insurance		**4,351**		4,327
Accrued income and other assets		**9,535**		8,265
Discontinued assets		**467**		562
Total assets	$	**190,051**	$	186,346
LIABILITIES				
Deposits in domestic offices:				
NOW and money market deposit accounts	$	**84,168**	$	89,207
Savings deposits		**7,860**		7,503
Certificates of deposit ($100,000 or more)		**1,269**		1,705
Other time deposits		**4,578**		2,153
Total interest-bearing deposits		**97,875**		100,568
Noninterest-bearing deposits		**46,980**		52,004
Total deposits		**144,855**		152,572
Federal funds purchased and securities sold under repurchase agreements		**4,224**		173
Bank notes and other short-term borrowings		**4,576**		588
Accrued expense and other liabilities		**4,849**		3,548
Long-term debt		**18,257**		12,042
Total liabilities		**176,761**		168,923
EQUITY				
Preferred stock		**2,500**		1,900
Common Shares, $1 par value; authorized 2,100,000,000 shares; issued 1,256,702,081 shares		**1,257**		1,257
Capital surplus		**6,257**		6,278
Retained earnings		**15,450**		14,553
Treasury stock, at cost (323,763,632 and 327,852,311 shares)		**(5,917)**		(5,979)
Accumulated other comprehensive income (loss)		**(6,257)**		(586)
Total equity		**13,290**		17,423
Total liabilities and equity	$	**190,051**	$	186,346

(a) Total loans held for sale include real estate — residential mortgage loans held for sale at fair value of $61 million at September 30, 2022, and $281 million at December 31, 2021.
See Notes to Consolidated Financial Statements (Unaudited).

Consolidated Statements of Income

Dollars in millions, except per share amounts (Unaudited)	Three months ended September 30, 2022	Three months ended September 30, 2021	Nine months ended September 30, 2022	Nine months ended September 30, 2021
INTEREST INCOME				
Loans	**$ 1,134**	$ 882	**$ 2,894**	$ 2,659
Loans held for sale	**14**	13	**36**	35
Securities available for sale	**196**	135	**557**	398
Held-to-maturity securities	**55**	43	**149**	133
Trading account assets	**8**	4	**21**	14
Short-term investments	**32**	9	**49**	20
Other investments	**5**	1	**11**	5
Total interest income	**1,444**	1,087	**3,717**	3,264
INTEREST EXPENSE				
Deposits	**59**	15	**93**	52
Federal funds purchased and securities sold under repurchase agreements	**19**	—	**25**	—
Bank notes and other short-term borrowings	**24**	2	**36**	6
Long-term debt	**146**	54	**256**	168
Total interest expense	**248**	71	**410**	226
NET INTEREST INCOME	**1,196**	1,016	**3,307**	3,038
Provision for credit losses	**109**	(107)	**237**	(422)
Net interest income after provision for credit losses	**1,087**	1,123	**3,070**	3,460
NONINTEREST INCOME				
Trust and investment services income	**127**	129	**400**	395
Investment banking and debt placement fees	**154**	235	**466**	614
Service charges on deposit accounts	**92**	91	**279**	247
Operating lease income and other leasing gains	**19**	37	**79**	111
Corporate services income	**96**	74	**283**	212
Cards and payments income	**91**	111	**256**	329
Corporate-owned life insurance income	**33**	33	**99**	94
Consumer mortgage income	**14**	33	**49**	106
Commercial mortgage servicing fees	**44**	34	**125**	112
Other income [(a)]	**13**	20	**11**	65
Total noninterest income	**683**	797	**2,047**	2,285
NONINTEREST EXPENSE				
Personnel	**655**	640	**1,892**	1,887
Net occupancy	**72**	74	**223**	225
Computer processing	**77**	67	**232**	211
Business services and professional fees	**47**	56	**152**	157
Equipment	**23**	25	**72**	75
Operating lease expense	**24**	30	**79**	95
Marketing	**30**	32	**92**	89
Other expense	**178**	188	**512**	520
Total noninterest expense	**1,106**	1,112	**3,254**	3,259
INCOME (LOSS) FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	**664**	808	**1,863**	2,486
Income taxes	**124**	165	**346**	501
INCOME (LOSS) FROM CONTINUING OPERATIONS	**540**	643	**1,517**	1,985
Income (loss) from discontinued operations	**2**	2	**6**	11
NET INCOME (LOSS)	**542**	645	**1,523**	1,996
Less: Net income (loss) attributable to noncontrolling interests	**—**	—	**—**	—
NET INCOME (LOSS) ATTRIBUTABLE TO KEY	**$ 542**	$ 645	**$ 1,523**	$ 1,996
Income (loss) from continuing operations attributable to Key common shareholders	**$ 513**	$ 616	**$ 1,437**	$ 1,905
Net income (loss) attributable to Key common shareholders	**515**	618	**1,443**	1,916
Per Common Share:				
Income (loss) from continuing operations attributable to Key common shareholders	**$ .55**	$ .65	**$ 1.55**	$ 1.99
Income (loss) from discontinued operations, net of taxes	**—**	—	**.01**	.01
Net income (loss) attributable to Key common shareholders [(b)]	**.55**	.66	**1.56**	2.00
Per Common Share — assuming dilution:				
Income (loss) from continuing operations attributable to Key common shareholders	**$ .55**	$ .65	**$ 1.54**	$ 1.98
Income (loss) from discontinued operations, net of taxes	**—**	—	**.01**	.01
Net income (loss) attributable to Key common shareholders [(b)]	**.55**	.65	**1.55**	1.99
Weighted-average Common Shares outstanding (000)	**924,594**	942,446	**924,085**	955,069
Effect of Common Share options and other stock awards	**7,861**	10,077	**8,679**	9,712
Weighted-average Common Shares and potential Common Shares outstanding (000) [(c)]	**932,455**	952,523	**932,764**	964,781

(a) For the three and nine months ended September 30, 2022, we had a $9 million gain in net securities. For the three months ended September 30, 2021, we had a $9 million gain in net securities. For the three and nine months ended September 30, 2022, and September 30, 2021, we did not have any impairment losses related to securities.
(b) EPS may not foot due to rounding.
(c) Assumes conversion of Common Share options and other stock awards and/or convertible preferred stock, as applicable.
See Notes to Consolidated Financial Statements (Unaudited).

Consolidated Statements of Comprehensive Income

Dollars in millions (Unaudited)	Three months ended September 30,		Nine months ended September 30,	
	2022	**2021**	**2022**	**2021**
Net income (loss)	**$ 542**	$ 645	**$ 1,523**	$ 1,996
Other comprehensive income (loss), net of tax:				
Net unrealized gains (losses) on securities available for sale, net of income taxes of $510, $56, $1,381, and $195	**(1,616)**	(174)	**(4,380)**	(617)
Net unrealized gains (losses) on derivative financial instruments, net of income taxes of $150, $9, $409, and $57	**(477)**	(29)	**(1,298)**	(180)
Net pension and postretirement benefit costs, net of income taxes of $0, $(3), $(2), and $(5)	**2**	8	**7**	14
Total other comprehensive income (loss), net of tax	**(2,091)**	(195)	**(5,671)**	(783)
Comprehensive income (loss)	**(1,549)**	450	**(4,148)**	1,213
Less: Comprehensive income attributable to noncontrolling interests	**—**	—	**—**	—
Comprehensive income (loss) attributable to Key	**$ (1,549)**	$ 450	**$ (4,148)**	$ 1,213

See Notes to Consolidated Financial Statements (Unaudited).

Table of contents

Consolidated Statements of Changes in Equity

Dollars in millions, except per share amounts (Unaudited)	Key Shareholders' Equity								
	Preferred Shares Outstanding (000)	Common Shares Outstanding (000)	Preferred Stock	Common Shares	Capital Surplus	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
BALANCE AT DECEMBER 31, 2021	1,396	928,850	$ 1,900	$ 1,257	$ 6,278	$ 14,553	$ (5,979)	$ (586)	$ 17,423
Net income (loss)						**1,523**			**1,523**
Other comprehensive income (loss)								**(5,671)**	**(5,671)**
Deferred compensation					**(6)**				**(6)**
Cash dividends declared									
Common Shares ($.585 per share)						**(546)**			**(546)**
Series D Preferred Stock ($37.50 per depositary share)						**(19)**			**(19)**
Series E Preferred Stock ($1.148400 per depositary share)						**(24)**			**(24)**
Series F Preferred Stock ($1.059400 per depositary share)						**(18)**			**(18)**
Series G Preferred Stock ($1.054700 per depositary share)						**(19)**			**(19)**
Employee equity compensation program Common Share repurchases		**(1,734)**					**(44)**		**(44)**
Common shares reissued (returned) for stock options and other employee benefit plans		**5,822**			**(5)**		**106**		**101**
Issuance of Series H preferred stock	**600**		**600**		**(10)**				**590**
BALANCE AT SEPTEMBER 30, 2022	**1,996**	**932,938**	**$ 2,500**	**$ 1,257**	**$ 6,257**	**$ 15,450**	**$ (5,917)**	**$ (6,257)**	**$ 13,290**
BALANCE AT JUNE 30, 2022	1,396	932,643	$ 1,900	$ 1,257	$ 6,241	$ 15,118	$ (5,923)	$ (4,166)	$ 14,427
Net income (loss)						**542**			**542**
Other comprehensive income (loss)								**(2,091)**	**(2,091)**
Deferred compensation					**—**				**—**
Cash dividends declared									
Common Shares ($.195 per share)						**(182)**			**(182)**
Series D Preferred Stock ($12.50 per depositary share)						**(7)**			**(7)**
Series E Preferred Stock ($.382813 per depositary share)						**(8)**			**(8)**
Series F Preferred Stock ($.353125 per depositary share)						**(6)**			**(6)**
Series G Preferred Stock ($.351563 per depositary share)						**(7)**			**(7)**
Employee equity compensation program Common Share repurchases		**(3)**			**—**		**—**		**—**
Common shares reissued (returned) for stock options and other employee benefit plans		**298**			**26**		**6**		**32**
Issuance of Series H preferred stock	**600**		**600**		**(10)**				**590**
BALANCE AT SEPTEMBER 30, 2022	**1,996**	**932,938**	**$ 2,500**	**$ 1,257**	**$ 6,257**	**$ 15,450**	**$ (5,917)**	**$ (6,257)**	**$ 13,290**

Dollars in millions, except per share amounts (Unaudited)	Key Shareholders' Equity								
	Preferred Shares Outstanding (000)	Common Shares Outstanding (000)	Preferred Stock	Common Shares	Capital Surplus	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
BALANCE AT DECEMBER 31, 2020	1,396	975,773	$ 1,900	$ 1,257	$ 6,281	$ 12,751	$ (4,946)	$ 738	$ 17,981
Net income (loss)						1,996			1,996
Other comprehensive income (loss)								(783)	(783)
Deferred compensation					5				5
Cash dividends declared									
Common Shares ($.555 per share)						(534)			(534)
Series D Preferred Stock ($37.50 per depositary share)						(20)			(20)
Series E Preferred Stock ($1.148439 per depositary share)						(23)			(23)
Series F Preferred Stock ($1.059375 per depositary share)						(18)			(18)
Series G Preferred Stock ($1.054689 per depositary share)						(19)			(19)
Open market Common Share repurchases		(27,346)					(559)		(559)
Employee equity compensation program Common Share repurchases		(1,604)			—		(32)		(32)
Common shares reissued (returned) for stock options and other employee benefit plans		7,274			(28)		129		101
Common share repurchases under ASR program		(23,553)			(117)		(468)		(585)
BALANCE AT SEPTEMBER 30, 2021	1,396	930,544	$ 1,900	$ 1,257	$ 6,141	$ 14,133	$ (5,876)	$ (45)	$ 17,510
BALANCE AT JUNE 30, 2021	1,396	960,276	$ 1,900	$ 1,257	$ 6,232	$ 13,689	$ (5,287)	$ 150	$ 17,941
Net income (loss)						645			645
Other comprehensive income (loss)								(195)	(195)
Deferred compensation					5				5
Cash dividends declared									
Common Shares ($.185 per share)						(176)			(176)
Series D Preferred Stock ($12.50 per depositary share)						(6)			(6)
Series E Preferred Stock ($.382813 per depositary share)						(7)			(7)
Series F Preferred Stock ($.353125 per depositary share)						(7)			(7)
Series G Preferred Stock ($.35156 per depositary share)						(5)			(5)
Open market Common Share repurchases		(6,367)					(125)		(125)

Employee equity compensation program Common Share repurchases		(3)			—		—		—
Common shares reissued (returned) for stock options and other employee benefit plans		191			21		4		25
Common share repurchases under ASR program		(23,553)			(117)		(468)		(585)
BALANCE AT SEPTEMBER 30, 2021	1,396	930,544	$ 1,900	$ 1,257	$ 6,141	$ 14,133	$ (5,876)	$ (45)	$ 17,510

See Notes to Consolidated Financial Statements (Unaudited).

Consolidated Statements of Cash Flows

Dollars in millions (Unaudited)	Nine months ended September 30, 2022	2021
OPERATING ACTIVITIES		
Net income (loss)	**$ 1,523**	$ 1,996
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Provision for credit losses	**237**	(422)
Depreciation and amortization expense, net	**100**	80
Accretion of acquired loans	**22**	19
Increase in cash surrender value of corporate-owned life insurance	**(83)**	(82)
Stock-based compensation expense	**89**	78
Deferred income taxes (benefit)	**38**	126
Proceeds from sales of loans held for sale	**9,337**	11,282
Originations of loans held for sale, net of repayments	**(7,597)**	(10,818)
Net losses (gains) on sales of loans held for sale	**(116)**	(192)
Net losses (gains) on leased equipment	**6**	(9)
Net securities losses (gains)	**9**	—
Net losses (gains) on sales of fixed assets	**(5)**	13
Net decrease (increase) in trading account assets	**(367)**	(167)
Net transfers of loans held for sale	**—**	26
Other operating activities, net	**(309)**	(767)
NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES	**2,884**	1,163
INVESTING ACTIVITIES		
Purchases of intangibles assets via acquisitions	**(12)**	—
Cash received (used) in acquisitions, net of cash acquired	**(58)**	(9)
Net decrease (increase) in short-term investments, excluding acquisitions	**6,114**	(3,414)
Purchases of securities available for sale	**(4,429)**	(19,726)
Proceeds from sales of securities available for sale	**—**	—
Proceeds from prepayments and maturities of securities available for sale	**3,774**	5,824
Proceeds from prepayments and maturities of held-to-maturity securities	**1,891**	2,004
Purchases of held-to-maturity securities	**(2,727)**	(3)
Purchases of other investments	**(620)**	(26)
Proceeds from sales of other investments	**13**	36
Proceeds from prepayments and maturities of other investments	**9**	8
Net decrease (increase) in loans, excluding acquisitions, sales and transfers	**(14,443)**	(1,031)
Proceeds from sales of portfolio loans	**125**	243
Proceeds from corporate-owned life insurance	**60**	56
Purchases of premises, equipment, and software	**(61)**	(31)
Proceeds from sales of premises and equipment	**13**	—
NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES	**(10,351)**	(16,069)
FINANCING ACTIVITIES		
Net increase (decrease) in deposits	**(7,717)**	16,649
Net increase (decrease) in short-term borrowings	**8,039**	16
Net proceeds from issuance of long-term debt	**15,601**	1,203
Payments on long-term debt	**(8,577)**	(1,521)
Issuance of preferred shares	**590**	—
Open market common share repurchases	**—**	(559)
Employee equity compensation program Common Share repurchases	**(44)**	(32)
Common share purchases under ASR program	**—**	(585)
Net proceeds from reissuance of Common Shares	**5**	21
Cash dividends paid	**(626)**	(614)
NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES	**7,271**	14,578
NET INCREASE (DECREASE) IN CASH AND DUE FROM BANKS	**(196)**	(328)
CASH AND DUE FROM BANKS AT BEGINNING OF PERIOD	**913**	1,091
CASH AND DUE FROM BANKS AT END OF PERIOD	**$ 717**	$ 763
Additional disclosures relative to cash flows:		
Interest paid	**$ 277**	$ 254
Income taxes paid (refunded)	**160**	212
Noncash items:		
Reduction of secured borrowing and related collateral	**$ 7**	$ 7
Loans transferred to portfolio from held for sale	**57**	86
Loans transferred to held for sale from portfolio	**—**	3,403
Loans transferred to OREO	**5**	3
CMBS risk retentions	**12**	—
ABS risk retentions	**9**	13
Securities received as consideration	**—**	2,825

See Notes to Consolidated Financial Statements (Unaudited).

Notes to Consolidated Financial Statements (Unaudited)
1. Basis of Presentation and Accounting Policies

The consolidated financial statements include the accounts of KeyCorp and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. Some previously reported amounts related to derivative valuations and reserves have been reclassified from Other Income to Corporate Services Income to conform to current reporting practices.

The consolidated financial statements include any voting rights entities in which we have a controlling financial interest. In accordance with the applicable accounting guidance for consolidations, we consolidate a VIE if we have: (i) a variable interest in the entity; (ii) the power to direct activities of the VIE that most significantly affect the entity's economic performance; and (iii) the obligation to absorb losses of the entity or the right to receive benefits from the entity that could potentially be significant to the VIE (i.e., we are considered to be the primary beneficiary). Variable interests can include equity interests, subordinated debt, derivative contracts, leases, service agreements, guarantees, standby letters of credit, loan commitments, and other contracts, agreements, and financial instruments. See Note 11 ("Variable Interest Entities") for information on our involvement with VIEs.

We use the equity method to account for unconsolidated investments in voting rights entities or VIEs if we have significant influence over the entity's operating and financing decisions (usually defined as a voting or economic interest of 20% to 50%, but not controlling). Unconsolidated investments in voting rights entities or VIEs in which we have a voting or economic interest of less than 20% are carried at the cost measurement alternative or at fair value. Investments held by our registered broker-dealer and investment company subsidiaries (principal investing entities and Real Estate Capital line of business) are carried at fair value.

The unaudited consolidated interim financial statements reflect all adjustments of a normal recurring nature and disclosures that are necessary for a fair presentation of the results for the interim periods presented. The results of operations for the interim period are not necessarily indicative of the results of operations to be expected for the full year. The interim financial statements should be read in conjunction with the audited consolidated financial statements and related notes included in our 2021 Form 10-K.

In preparing these financial statements, subsequent events were evaluated through the time the financial statements were issued. Financial statements are considered issued when they are widely distributed to all shareholders and other financial statement users or filed with the SEC.

Accounting Guidance Adopted in 2022

Standard	Date of Adoption	Description	Effect on Financial Statements or Other Significant Matters
Reference Rate Reform (Topic 848)	March 12, 2020 through December 31, 2022	London Interbank Offered Rate (LIBOR), a reference rate presumed to capture bank funding costs, is being phased out and will no longer be published. This transition to alternate rates will impact, among other things, contracts that reference LIBOR. This ASU provides relief from cumbersome accounting consequences for certain qualifying contract modifications undertaken as a result of reference rate reform.	Key has established an enterprise-wide program to identify and address all LIBOR related matters. We have 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. We plan to elect any optional expedients for contract modifications and hedging relationships to any other financial instruments falling under the scope of reference rate reform.
ASU 2020-06, Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40)	January 1, 2022	The ASU simplifies the accounting for convertible debt instruments by eliminating the legacy accounting models for convertible instruments with beneficial conversion features or cash conversion features. The guidance also amends the guidance used to determine if a freestanding financial instrument or an embedded feature qualifies for a scope exception from derivative accounting. For freestanding financial instruments and embedded features that have all the characteristics of a derivative instrument and are potentially settled in an entity's own stock, the guidance simplifies the settlement assessment that entities are required to perform. Also, the Update now requires the use of the if-converted method for all convertible instruments and includes the effect of potential share settlement in diluted EPS if the effect is more dilutive. The new guidance also makes clarifications to the EPS calculation. Further, the ASU expands disclosure requirements. The guidance should be applied on a modified retrospective or retrospective basis.	The adoption of this accounting guidance did not have a material effect on our financial condition or results of operations.

2. Earnings Per Common Share

Basic earnings per share is the amount of earnings (adjusted for dividends declared on our preferred stock) available to each Common Share outstanding during the reporting periods. Diluted earnings per share is the amount of earnings available to each Common Share outstanding during the reporting periods adjusted to include the effects of potentially dilutive Common Shares. Potentially dilutive Common Shares include stock options and other stock-based awards. Potentially dilutive Common Shares are excluded from the computation of diluted earnings per share in the periods where the effect would be antidilutive.

Our basic and diluted earnings per Common Share are calculated as follows:

	Three months ended September 30,		Nine months ended September 30,	
Dollars in millions, except per share amounts	**2022**	**2021**	**2022**	**2021**
EARNINGS				
Income (loss) from continuing operations	**$ 540**	$ 643	**$ 1,517**	$ 1,985
Less: Net income (loss) attributable to noncontrolling interests	**—**	—	**—**	—
Income (loss) from continuing operations attributable to Key	**540**	643	**1,517**	1,985
Less: Dividends on Preferred Stock	**27**	27	**80**	80
Income (loss) from continuing operations attributable to Key common shareholders	**513**	616	**1,437**	1,905
Income (loss) from discontinued operations, net of taxes	**2**	2	**6**	11
Net income (loss) attributable to Key common shareholders	**$ 515**	$ 618	**$ 1,443**	$ 1,916
WEIGHTED-AVERAGE COMMON SHARES				
Weighted-average Common Shares outstanding (000)	**924,594**	942,446	**924,085**	955,069
Effect of Common Share options and other stock awards	**7,861**	10,077	**8,679**	9,712
Weighted-average Common Shares and potential Common Shares outstanding (000) [a]	**932,455**	952,523	**932,764**	964,781
EARNINGS PER COMMON SHARE				
Income (loss) from continuing operations attributable to Key common shareholders	**$ .55**	$ .65	**$ 1.55**	$ 1.99
Income (loss) from discontinued operations, net of taxes	**—**	—	**.01**	.01
Net income (loss) attributable to Key common shareholders [b]	**.55**	.66	**1.56**	2.00
Income (loss) from continuing operations attributable to Key common shareholders — assuming dilution	**$ .55**	$ .65	**$ 1.54**	$ 1.98
Income (loss) from discontinued operations, net of taxes — assuming dilution	**—**	—	**.01**	.01
Net income (loss) attributable to Key common shareholders — assuming dilution [b]	**.55**	.65	**1.55**	1.99

(a) Assumes conversion of Common Share options and other stock awards and/or convertible preferred stock, as applicable.
(b) EPS may not foot due to rounding.

3. Loan Portfolio

Loan Portfolio by Portfolio Segment and Financing Receivable [a]

Dollars in millions	September 30, 2022	December 31, 2021
Commercial and industrial [b]	**$ 56,971**	$ 50,525
Commercial real estate:		
Commercial mortgage	**16,400**	14,244
Construction	**2,349**	1,996
Total commercial real estate loans	**18,749**	16,240
Commercial lease financing [c]	**3,877**	4,071
Total commercial loans	**79,597**	70,836
Residential — prime loans:		
Real estate — residential mortgage	**20,838**	15,756
Home equity loans	**7,926**	8,467
Total residential — prime loans	**28,764**	24,223
Consumer direct loans	**6,803**	5,753
Credit cards	**977**	972
Consumer indirect loans	**50**	70
Total consumer loans	**36,594**	31,018
Total loans [d]	**$ 116,191**	$ 101,854

(a) Accrued interest of $274 million and $198 million at September 30, 2022, and December 31, 2021, respectively, presented in "other assets" on the Consolidated Balance Sheets is excluded from the amortized cost basis disclosed in this table.
(b) Loan balances include $166 million and $139 million of commercial credit card balances at September 30, 2022, and December 31, 2021, respectively.
(c) Commercial lease financing includes receivables held as collateral for a secured borrowing of $10 million and $16 million at September 30, 2022, and December 31, 2021, respectively. Principal reductions are based on the cash payments received from these related receivables. Additional information pertaining to this secured borrowing is included in Note 20 (“Long-Term Debt”) beginning on page 169 of our 2021 Form 10-K.
(d) Total loans exclude loans of $467 million at September 30, 2022, and $567 million at December 31, 2021, related to the discontinued operations of the education lending business.

4. Asset Quality

ALLL

We estimate the appropriate level of the ALLL on at least a quarterly basis. The methodology is described in Note 1 ("Summary of Significant Accounting Policies") under the heading "Allowance for Loan and Lease Losses" beginning on page 109 of our 2021 Form 10-K.

The ALLL at September 30, 2022, represents our current estimate of lifetime credit losses inherent in the loan portfolio at that date. The changes in the ALLL by loan category for the periods indicated are as follows:

Three months ended September 30, 2022:

Dollars in millions	June 30, 2022	Provision	Charge-offs	Recoveries	September 30, 2022
Commercial and Industrial	$ 503	$ 52	$ (49)	$ 13	$ 519
Commercial real estate:					
Real estate — commercial mortgage	156	13	(3)	2	168
Real estate — construction	21	1	—	—	22
Total commercial real estate loans	177	14	(3)	2	190
Commercial lease financing	29	—	—	1	30
Total commercial loans	709	66	(52)	16	739
Real estate — residential mortgage	122	15	(1)	1	137
Home equity loans	95	(3)	—	1	93
Consumer direct loans	112	4	(8)	4	112
Credit cards	59	7	(7)	2	61
Consumer indirect loans	2	(1)	—	1	2
Total consumer loans	390	22	(16)	9	405
Total ALLL — continuing operations	1,099	88 [(a)]	(68)	25	1,144
Discontinued operations	24	(2)	(1)	1	22
Total ALLL — including discontinued operations	$ 1,123	$ 86	$ (69)	$ 26	$ 1,166

(a) Excludes a provision for losses on lending-related commitments of $21 million.

Three months ended September 30, 2021:

Dollars in millions	June 30, 2021	Provision	Charge-offs	Recoveries	September 30, 2021
Commercial and Industrial	$ 499	$ (30)	$ (27)	$ 20	$ 462
Commercial real estate:					
Real estate — commercial mortgage	227	(44)	—	1	184
Real estate — construction	35	(8)	—	—	27
Total commercial real estate loans	262	(52)	—	1	211
Commercial lease financing	34	(7)	(1)	6	32
Total commercial loans	795	(89)	(28)	27	705
Real estate — residential mortgage	86	(1)	2	1	88
Home equity loans	136	(13)	(1)	2	124
Consumer direct loans	115	(5)	(7)	2	105
Credit cards	68	(4)	(6)	1	59
Consumer indirect loans	20	5	(26)	4	3
Total consumer loans	425	(18)	(38)	10	379
Total ALLL — continuing operations	1,220	(107) [(a)]	(66)	37	1,084
Discontinued operations	30	(1)	(1)	1	29
Total ALLL — including discontinued operations	$ 1,250	$ (108)	$ (67)	$ 38	$ 1,113

(a) We had no losses on lending-related commitments.

Nine months ended September 30, 2022:

Dollars in millions	December 31, 2021	Provision	Charge-offs	Recoveries	September 30, 2022
Commercial and Industrial	$ 445	$ 160	$ (118)	$ 32	$ 519
Commercial real estate:					
Real estate — commercial mortgage	182	(8)	(10)	4	168
Real estate — construction	29	(8)	—	1	22
Total commercial real estate loans	211	(16)	(10)	5	190
Commercial lease financing	32	(2)	(2)	2	30
Total commercial loans	688	142	(130)	39	739
Real estate — residential mortgage	95	38	2	2	137
Home equity loans	110	(19)	(1)	3	93
Consumer direct loans	105	25	(25)	7	112
Credit cards	61	17	(22)	5	61
Consumer indirect loans	2	—	(2)	2	2
Total consumer loans	373	61	(48)	19	405
Total ALLL — continuing operations	1,061	203 [(a)]	(178)	58	1,144
Discontinued operations	28	(4)	(4)	2	22
Total ALLL — including discontinued operations	$ 1,089	$ 199	$ (182)	$ 60	$ 1,166

(a) Excludes a provision for losses on lending-related commitments of $34 million.

Nine months ended September 30, 2021:

Dollars in millions	December 31, 2020	Provision	Charge-offs	Recoveries	September 30, 2021
Commercial and Industrial	$ 678	$ (135)	$ (141)	$ 60	$ 462
Commercial real estate:					
Real estate — commercial mortgage	327	(112)	(39)	8	184
Real estate — construction	47	(20)	—	—	27
Total commercial real estate loans	374	(132)	(39)	8	211
Commercial lease financing	47	(17)	(5)	7	32
Total commercial loans	1,099	(284)	(185)	75	705
Real estate — residential mortgage	102	(17)	1	2	88
Home equity loans	171	(44)	(7)	4	124
Consumer direct loans	128	(7)	(22)	6	105
Credit cards	87	(13)	(21)	6	59
Consumer indirect loans	39	(12)	(38)	14	3
Total consumer loans	527	(93)	(87)	32	379
Total ALLL — continuing operations	1,626	(377) [(a)]	(272)	107	1,084
Discontinued operations	36	(6)	(3)	2	29
Total ALLL — including discontinued operations	$ 1,662	$ (383)	$ (275)	$ 109	$ 1,113

(a) Excludes a provision for losses on lending-related commitments of $45 million.

As described in Note 1 ("Summary of Significant Accounting Policies"), under the heading “Allowance for Loan and Lease Losses” beginning on page 109 of our 2021 Form 10-K, we estimate the ALLL using relevant available information, from internal and external sources, relating to past events, current economic and portfolio conditions, and reasonable and supportable forecasts. In our estimation of expected credit losses, we use a two year reasonable and supportable period across all products. Following this two year period in which supportable forecasts can be generated, for all modeled loan portfolios, we revert expected credit losses to a level that is consistent with our historical information by reverting the macroeconomic variables (model inputs) to their long run average. We revert to historical loss rates for less complex estimation methods for smaller portfolios. A 20 year fixed length look back period is used to calculate the long run average of the macroeconomic variables. A four quarter reversion period is used where the macroeconomic variables linearly revert to their long run average following the two year reasonable and supportable period.

We develop our reasonable and supportable forecasts using relevant data including, but not limited to, changes in economic output, unemployment rates, property values, and other factors associated with the credit losses on financial assets. Some macroeconomic variables apply to all portfolio segments, while others are more portfolio specific. The following table discloses key macroeconomic variables for each loan portfolio.

Segment	Portfolio	Key Macroeconomic Variables [a]
Commercial	Commercial and industrial	BBB corporate bond rate (spread), fixed investment, business bankruptcies, GDP, industrial production, and unemployment rate
	Commercial real estate	Property & real estate price indices, unemployment rate, business bankruptcies, GDP
	Commercial lease financing	BBB corporate bond rate (spread), GDP, and unemployment rate
Consumer	Real estate — residential mortgage	GDP, home price index, unemployment rate, and 30 year mortgage rate
	Home equity	Home price index, unemployment rate, and 30 year mortgage rate
	Consumer direct	Unemployment rate and U.S. household income
	Consumer indirect	New vehicle sales, used vehicle prices, and Unemployment rate
	Credit cards	Unemployment rate and U.S. household income
	Discontinued operations	Unemployment rate

(a) Variables include all transformations and interactions with other risk drivers. Additionally, variables may have varying impacts at different points in the economic cycle.

In addition to macroeconomic drivers, portfolio attributes such as remaining term, outstanding balance, risk ratings, utilization, FICO, LTV, and delinquency also drive ALLL changes. Our ALLL models were designed to capture the correlation between economic and portfolio changes. As such, evaluating shifts in individual portfolio attributes and macroeconomic variables in isolation may not be indicative of past or future performance.

Economic Outlook

As of September 30, 2022, risk of slowing economic growth is elevated due to the heightened inflationary pressures and continued stress on global supply chains. While inflation in the United States has persisted at elevated levels, monetary policy has become more restrictive which is expected to reduce inflation into 2023. While unemployment rates are still expected to remain at relatively low levels, job growth is moderating. We utilized the Moody's August 2022 Consensus forecast as our baseline forecast to estimate our expected credit losses as of September 30, 2022. We determined such forecast to be a reasonable view of the outlook for the economy given all available information at quarter end.

The baseline scenario reflects slow economic growth over the next two years in markets in which we operate. U.S. GDP continues to grow, albeit at a slow pace, at a 1.7% annualized rate in the third quarter of 2022 and at an annual rate of approximately 2% and 1% for 2022 and 2023, respectively. The national unemployment rate forecast is 3.5% in the third quarter of 2022, and is expected to increase slightly through the fourth quarter of 2023 due to labor supply constraints. The U.S. Consumer Price Index (CPI) annualized rate is expected to return to below 3% by the first quarter of 2023.

As a result of the current economic uncertainty, our future loss estimates may vary considerably from our September 30, 2022, assumptions.

Commercial Loan Portfolio

The ALLL from continuing operations for the commercial segment increased by $30 million, or 4.2%, from June 30, 2022. The overall increase in the commercial allowance is driven by loan growth and changes in economic outlook.

Changes to the economic forecast include increases in unemployment, lower final sales of domestic product and decreased consumer confidence measures, largely related to observed high inflation and increased interest rates. Loan growth particularly within the commercial and industrial portfolio remains strong and contributes to reserve build. These increases are partly offset by reductions in the qualitative reserves due to easing of pandemic-related risks as well as lower reserves attributable to a model recalibration and to individually assessed reserves.

Consumer Loan Portfolio

The ALLL from continuing operations for the consumer segment increased by $15 million, or 3.8%, from June 30, 2022. The overall increase in the allowance is primarily driven by loan growth and economic forecast changes, partly offset by reductions in qualitative reserves as pandemic-related pressures ease.

Current reserve levels reflect the overall declining economic outlook quarter-over-quarter, with the most meaningful economic changes being the slowing home price growth and shifts in the unemployment outlook. As it relates to the changes in the ALLL due to portfolio factors, increases are largely driven by targeted growth in the residential mortgage portfolio.

Credit Risk Profile

The prevalent risk characteristic for both commercial and consumer loans is the risk of loss arising from an obligor's inability or failure to meet contractual payment or performance terms. Evaluation of this risk is stratified and monitored by the loan risk rating grades assigned for the commercial loan portfolios and the refreshed FICO score assigned for the consumer loan portfolios. The internal risk grades assigned to loans follow our definitions of Pass and Criticized, which are consistent with published definitions of regulatory risk classifications. Loans with a pass rating represent those loans not classified on our rating scale for credits, as minimal credit risk has been identified. Criticized loans are those loans that either have a potential weakness deserving management's close attention or have a well-defined weakness that may put full collection of contractual cash flows at risk. Borrower FICO scores provide information about the credit quality of our consumer loan portfolio as they provide an indication as to the likelihood that a debtor will repay its debts. The scores are obtained from a nationally recognized consumer rating agency and are presented in the tables below at the dates indicated.

All extensions of credit are subject to loan grading or scoring. Loan grades are assigned at the time of origination, verified by credit risk management, and periodically re-evaluated thereafter. This risk rating methodology blends our judgment with quantitative modeling. Commercial loans generally are assigned two internal risk ratings. The first rating reflects the probability that the borrower will default on an obligation; the second rating reflects expected recovery rates on the credit facility. Default probability is determined based on, among other factors, the financial strength of the borrower, an assessment of the borrower's management, the borrower's competitive position within its industry sector, and our view of industry risk in the context of the general economic outlook. Types of exposure, transaction structure, and collateral, including credit risk mitigants, affect the expected recovery assessment.

Commercial Credit Exposure
Credit Risk Profile by Creditworthiness Category and Vintage [(a)]

As of September 30, 2022	Term Loans Amortized Cost Basis by Origination Year and Internal Risk Rating						Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term Loans Amortized Cost Basis	
Dollars in millions	2022	2021	2020	2019	2018	Prior			Total
Commercial and Industrial									
Risk Rating:									
Pass	$ 7,572	$ 9,757	$ 3,729	$ 3,267	$ 1,862	$ 3,831	$ 24,796	$ 132	$ 54,946
Criticized (Accruing)	11	179	130	114	278	251	865	28	1,856
Criticized (Nonaccruing)	39	2	7	6	8	25	80	2	169
Total commercial and industrial	7,622	9,938	3,866	3,387	2,148	4,107	25,741	162	56,971
Real estate — commercial mortgage									
Risk Rating:									
Pass	4,162	4,264	1,014	1,912	827	2,695	927	50	15,851
Criticized (Accruing)	—	24	26	85	91	242	46	1	515
Criticized (Nonaccruing)	—	—	1	2	2	25	4	—	34
Total real estate — commercial mortgage	4,162	4,288	1,041	1,999	920	2,962	977	51	16,400
Real estate — construction									
Risk Rating:									
Pass	475	747	516	365	168	49	1	—	2,321
Criticized (Accruing)	—	—	5	5	14	4	—	—	28
Criticized (Nonaccruing)	—	—	—	—	—	—	—	—	—
Total real estate — construction	475	747	521	370	182	53	1	—	2,349
Commercial lease financing									
Risk Rating:									
Pass	697	869	558	506	199	991	—	—	3,820
Criticized (Accruing)	1	1	10	19	13	11	—	—	55
Criticized (Nonaccruing)	—	—	—	1	1	—	—	—	2
Total commercial lease financing	698	870	568	526	213	1,002		—	3,877
Total commercial loans	$ 12,957	$ 15,843	$ 5,996	$ 6,282	$ 3,463	$ 8,124	$ 26,719	$ 213	$ 79,597

As of December 31, 2021	Term Loans Amortized Cost Basis by Origination Year and Internal Risk Rating						Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term Loans Amortized Cost Basis	
Dollars in millions	2021	2020	2019	2018	2017	Prior			Total
Commercial and Industrial									
Risk Rating:									
Pass	$ 11,675	$ 4,941	$ 4,040	$ 2,771	$ 1,777	$ 3,108	$ 20,406	$ 72	$ 48,790
Criticized (Accruing)	64	71	115	175	200	121	784	14	1,544
Criticized (Nonaccruing)	1	1	21	10	19	15	122	2	191
Total commercial and industrial	11,740	5,013	4,176	2,956	1,996	3,244	21,312	88	50,525
Real estate — commercial mortgage									
Risk Rating:									
Pass	4,923	1,197	2,137	1,168	612	2,787	803	53	13,680
Criticized (Accruing)	15	22	70	62	109	206	35	1	520
Criticized (Nonaccruing)	—	1	1	5	—	31	6	—	44
Total real estate — commercial mortgage	4,938	1,220	2,208	1,235	721	3,024	844	54	14,244
Real estate — construction									
Risk Rating:									
Pass	495	565	530	223	92	32	2	—	1,939
Criticized (Accruing)	—	4	5	43	4	—	1	—	57
Criticized (Nonaccruing)	—	—	—	—	—	—	—	—	—
Total real estate — construction	495	569	535	266	96	32	3	—	1,996
Commercial lease financing									
Risk Rating:									
Pass	1,039	748	675	301	309	927	—	—	3,999
Criticized (Accruing)	—	6	29	13	13	7	—	—	68
Criticized (Nonaccruing)	—	—	1	1	1	1	—	—	4
Total commercial lease financing	1,039	754	705	315	323	935	—	—	4,071
Total commercial loans	$ 18,212	$ 7,556	$ 7,624	$ 4,772	$ 3,136	$ 7,235	$ 22,159	$ 142	$ 70,836

(a) Accrued interest of $197 million and $113 million as of September 30, 2022, and December 31, 2021, respectively, presented in Other Assets on the Consolidated Balance Sheets, was excluded from the amortized cost basis disclosed in these tables.

Consumer Credit Exposure
Credit Risk Profile by FICO Score and Vintage [(a)]

As of September 30, 2022	Term Loans Amortized Cost Basis by Origination Year and FICO Score						Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term Loans Amortized Cost Basis	
Dollars in millions	2022	2021	2020	2019	2018	Prior			Total
Real estate — residential mortgage									
FICO Score:									
750 and above	$ 4,959	$ 8,248	$ 2,624	$ 643	$ 63	$ 1,015	$ —	$ —	$ 17,552
660 to 749	1,256	979	299	115	32	261	—	—	2,942
Less than 660	35	38	18	15	15	139	—	—	260
No Score	51	1	1	1	1	28	1	—	84
Total real estate — residential mortgage	6,301	9,266	2,942	774	111	1,443	1	—	20,838
Home equity loans									
FICO Score:									
750 and above	138	879	760	214	76	647	2,303	403	5,420
660 to 749	85	302	204	83	33	196	961	129	1,993
Less than 660	9	31	22	17	10	84	294	38	505
No Score	4	—	—	—	—	2	2	—	8
Total home equity loans	236	1,212	986	314	119	929	3,560	570	7,926
Consumer direct loans									
FICO Score:									
750 and above	1,229	1,876	860	378	50	106	104	—	4,603
660 to 749	474	461	242	129	29	44	204	—	1,583
Less than 660	44	62	31	23	7	10	55	—	232
No Score	59	39	23	18	12	24	210	—	385
Total consumer direct loans	1,806	2,438	1,156	548	98	184	573	—	6,803
Credit cards									
FICO Score:									
750 and above	—	—	—	—	—	—	493	—	493
660 to 749	—	—	—	—	—	—	391	—	391
Less than 660	—	—	—	—	—	—	92	—	92
No Score	—	—	—	—	—	—	1	—	1
Total credit cards	—	—	—	—	—	—	977	—	977
Consumer indirect loans									
FICO Score:									
750 and above	—	2	—	—	—	24	—	—	26
660 to 749	—	—	—	—	—	17	—	—	17
Less than 660	—	—	—	—	—	7	—	—	7
No Score	—	—	—	—	—	—	—	—	—
Total consumer indirect loans	—	2	—	—	—	48	—	—	50
Total consumer loans	$ 8,343	$ 12,918	$ 5,084	$ 1,636	$ 328	$ 2,604	$ 5,111	$ 570	$ 36,594

As of December 31, 2021	Term Loans Amortized Cost Basis by Origination Year and FICO Score								
Dollars in millions	2021	2020	2019	2018	2017	Prior	Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term Loans Amortized Cost Basis	Total
Real estate — residential mortgage									
FICO Score:									
750 and above	$ 7,906	$ 2,909	$ 777	$ 84	$ 126	$ 1,096	$ —	$ —	$ 12,898
660 to 749	1,686	351	169	39	25	308	—	—	2,578
Less than 660	26	14	19	16	9	142	—	—	226
No Score	18	—	1	1	3	30	1	—	54
Total real estate — residential mortgage	9,636	3,274	966	140	163	1,576	1	—	15,756
Home equity loans									
FICO Score:									
750 and above	1,051	830	251	96	128	666	2,244	423	5,689
660 to 749	394	263	111	44	40	204	1,004	143	2,203
Less than 660	27	24	20	13	13	92	333	46	568
No Score	—	2	—	—	—	2	3	—	7
Total home equity loans	1,472	1,119	382	153	181	964	3,584	612	8,467
Consumer direct loans									
FICO Score:									
750 and above	1,799	1,129	517	65	17	129	109	—	3,765
660 to 749	612	295	174	46	10	45	212	—	1,394
Less than 660	45	33	27	11	3	12	60	—	191
No Score	68	40	29	17	10	21	218	—	403
Total consumer direct loans	2,524	1,497	747	139	40	207	599	—	5,753
Credit cards									
FICO Score:									
750 and above	—	—	—	—	—	—	500	—	500
660 to 749	—	—	—	—	—	—	387	—	387
Less than 660	—	—	—	—	—	—	84	—	84
No Score	—	—	—	—	—	—	1	—	1
Total credit cards	—	—	—	—	—	—	972	—	972
Consumer indirect loans									
FICO Score:									
750 and above	5	—	—	—	—	30	—	—	35
660 to 749	—	—	—	—	—	26	—	—	26
Less than 660	—	—	—	—	—	9	—	—	9
No Score	—	—	—	—	—	—	—	—	—
Total consumer indirect loans	5	—	—	—	—	65	—	—	70
Total consumer loans	$ 13,637	$ 5,890	$ 2,095	$ 432	$ 384	$ 2,812	$ 5,156	$ 612	$ 31,018

(a) Accrued interest of $77 million and $85 million as of September 30, 2022 and December 31, 2021, respectively, presented in Other Assets on the Consolidated Balance Sheets, was excluded from the amortized cost basis disclosed in this table.

Nonperforming and Past Due Loans

Our policies for determining past due loans, placing loans on nonaccrual, applying payments on nonaccrual loans, and resuming accrual of interest for our commercial and consumer loan portfolios are disclosed in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Nonperforming Loans” beginning on page 108 of our 2021 Form 10-K.

The following aging analysis of past due and current loans as of September 30, 2022, and December 31, 2021, provides further information regarding Key's credit exposure.

Aging Analysis of Loan Portfolio[a]

September 30, 2022 *Dollars in millions*	Current	30-59 Days Past Due [b]	60-89 Days Past Due [b]	90 and Greater Days Past Due [b]	Non-performing Loans	Total Past Due and Non-performing Loans	Total Loans [c]
LOAN TYPE							
Commercial and industrial	$ 56,674	$ 75	$ 31	$ 22	$ 169	$ 297	$ 56,971
Commercial real estate:							
Commercial mortgage	16,353	4	1	8	34	47	16,400
Construction	2,348	—	—	1	—	1	2,349
Total commercial real estate loans	18,701	4	1	9	34	48	18,749
Commercial lease financing	3,857	16	1	1	2	20	3,877
Total commercial loans	$ 79,232	$ 95	$ 33	$ 32	$ 205	$ 365	$ 79,597
Real estate — residential mortgage	$ 20,759	$ 9	$ 3	$ 1	$ 66	$ 79	$ 20,838
Home equity loans	7,787	19	4	4	112	139	7,926
Consumer direct loans	6,779	11	6	4	3	24	6,803
Credit cards	961	4	3	6	3	16	977
Consumer indirect loans	49	—	—	—	1	1	50
Total consumer loans	$ 36,335	$ 43	$ 16	$ 15	$ 185	$ 259	$ 36,594
Total loans	$ 115,567	$ 138	$ 49	$ 47	$ 390	$ 624	$ 116,191

(a) Amounts in table represent amortized cost and exclude loans held for sale.
(b) Accrued interest of $274 million presented in Other Assets on the Consolidated Balance Sheets is excluded from the amortized cost basis disclosed in this table.
(c) Net of unearned income, net of deferred fees and costs, and unamortized discounts and premiums.

December 31, 2021 *Dollars in millions*	Current	30-59 Days Past Due [b]	60-89 Days Past Due [b]	90 and Greater Days Past Due [b]	Non-performing Loans	Total Past Due and Non-performing Loans	Total Loans [c]
LOAN TYPE							
Commercial and industrial	$ 50,226	$ 19	$ 49	$ 40	$ 191	$ 299	$ 50,525
Commercial real estate:							
Commercial mortgage	14,174	10	9	7	44	70	14,244
Construction	1,978	—	17	1	—	18	1,996
Total commercial real estate loans	16,152	10	26	8	44	88	16,240
Commercial lease financing	4,061	6	—	—	4	10	4,071
Total commercial loans	$ 70,439	$ 35	$ 75	$ 48	$ 239	$ 397	$ 70,836
Real estate — residential mortgage	$ 15,669	$ 7	$ 3	$ 5	$ 72	$ 87	$ 15,756
Home equity loans	8,299	21	6	6	135	168	8,467
Consumer direct loans	5,736	8	2	3	4	17	5,753
Credit cards	956	4	3	6	3	16	972
Consumer indirect loans	68	1	—	—	1	2	70
Total consumer loans	$ 30,728	$ 41	$ 14	$ 20	$ 215	$ 290	$ 31,018
Total loans	$ 101,167	$ 76	$ 89	$ 68	$ 454	$ 687	$ 101,854

(a) Amounts in table represent amortized cost and exclude loans held for sale.
(b) Accrued interest of $198 million presented in Other Assets on the Consolidated Balance Sheets is excluded from the amortized cost basis disclosed in this table.
(c) Net of unearned income, net of deferred fees and costs, and unamortized discounts and premiums.

At September 30, 2022, the approximate carrying amount of our commercial nonperforming loans outstanding represented 60% of their original contractual amount owed, total nonperforming loans outstanding represented 72% of their original contractual amount owed, and nonperforming assets in total were carried at 80% of their original contractual amount owed.

Nonperforming loans reduced expected interest income by $4 million and $13 million for the three and nine months ended September 30, 2022, respectively, and $6 million and $20 million for the three and nine months ended September 30, 2021, respectively.

The amortized cost basis of nonperforming loans on nonaccrual status for which there is no related allowance for credit losses was $220 million at September 30, 2022.

Collateral-dependent Financial Assets

We classify financial assets as collateral-dependent when our borrower is experiencing financial difficulty, and we expect repayment to be provided substantially through the operation or sale of the collateral. Our commercial loans have collateral that includes cash, accounts receivable, inventory, commercial machinery, commercial properties, commercial real estate construction projects, enterprise value, and stock or ownership interests in the borrowing entity. When appropriate we also consider the enterprise value of the borrower as a repayment source for collateral-dependent loans. Our consumer loans have collateral that includes residential real estate, automobiles, boats, and RVs.

There were no significant changes in the extent to which collateral secures our collateral-dependent financial assets during the three months ended September 30, 2022.

TDRs

We classify loan modifications as TDRs when a borrower is experiencing financial difficulties and we have granted a concession without commensurate financial, structural, or legal consideration. Our loan modifications are handled on a case-by-case basis and are negotiated to achieve mutually agreeable terms that maximize loan collectability and meet the borrower's financial needs.

Commitments outstanding to lend additional funds to borrowers whose loan terms have been modified in TDRs were $10 million and $15 million at September 30, 2022, and December 31, 2021, respectively.

The consumer TDR other concession category in the table below primarily includes those borrowers' debts that are discharged through Chapter 7 bankruptcy and have not been formally re-affirmed. At September 30, 2022, and December 31, 2021, the recorded investment of consumer residential mortgage loans in the process of foreclosure was approximately $108 million and $104 million, respectively.

The following table shows the post-modification outstanding recorded investment by concession type for our commercial and consumer accruing and nonaccruing TDRs that occurred during the periods indicated:

	Three Months Ended September 30,		Nine Months Ended September 30,	
Dollars in millions	**2022**	**2021**	**2022**	**2021**
Commercial loans:				
Extension of Maturity Date	$ 40	$ —	$ 40	$ 5
Payment or Covenant Modification/Deferment	—	—	1	7
Bankruptcy Plan Modification	—	—	—	—
Increase in new commitment or new money	—	—	—	—
Total	$ 40	$ —	$ 41	$ 12
Consumer loans:				
Interest rate reduction	$ 5	$ 3	$ 10	$ 6
Other	4	12	17	18
Total	$ 9	$ 15	$ 27	$ 24
Total TDRs	$ 49	$ 15	$ 68	$ 36

The following table summarizes the change in the post-modification outstanding recorded investment of our accruing and nonaccruing TDRs during the periods indicated:

	Three Months Ended September 30,		Nine Months Ended September 30,	
Dollars in millions	**2022**	**2021**	**2022**	**2021**
Balance at beginning of the period	**$ 216**	$ 334	**$ 220**	$ 363
Additions	**48**	17	**70**	98
Payments	**(10)**	(81)	**(34)**	(162)
Charge-offs	**—**	—	**(2)**	(29)
Balance at end of period	**$ 254**	$ 270	**$ 254**	$ 270

A further breakdown of TDRs included in nonperforming loans by loan category for the periods indicated are as follows:

Dollars in millions	September 30, 2022 Number of Loans	Pre-modification Outstanding Recorded Investment	Post-modification Outstanding Recorded Investment	December 31, 2021 Number of Loans	Pre-modification Outstanding Recorded Investment	Post-modification Outstanding Recorded Investment
LOAN TYPE						
Nonperforming:						
Commercial and industrial	37	$ 64	$ 52	36	$ 30	$ 14
Commercial real estate:						
Commercial mortgage	4	50	23	3	50	25
Total commercial real estate loans	4	50	23	3	50	25
Total commercial loans	41	114	75	39	80	39
Real estate — residential mortgage	234	29	26	220	26	24
Home equity loans	478	32	28	531	36	31
Consumer direct loans	180	2	2	207	3	2
Credit cards	343	2	2	360	2	2
Consumer indirect loans	17	2	1	23	1	1
Total consumer loans	1,252	67	59	1,341	68	60
Total nonperforming TDRs	1,293	181	134	1,380	148	99
Prior-year accruing:[(a)]						
Commercial and industrial	17	1	—	11	—	—
Commercial real estate						
Commercial mortgage	—	—	—	1	—	—
Total commercial real estate loans	—	—	—	1	—	—
Total commercial loans	17	1	—	12	—	—
Real estate — residential mortgage	443	41	35	455	39	33
Home equity loans	1,563	97	74	1,628	97	75
Consumer direct loans	257	4	3	236	5	3
Credit cards	595	4	2	579	4	2
Consumer indirect loans	107	12	6	139	15	8
Total consumer loans	2,965	158	120	3,037	160	121
Total prior-year accruing TDRs	2,982	159	120	3,049	160	121
Total TDRs	4,275	$ 340	$ 254	4,429	$ 308	$ 220

(a) All TDRs that were restructured prior to January 1, 2022, and January 1, 2021, are fully accruing.

Commercial loan TDRs are considered defaulted when principal and interest payments are 90 days past due. Consumer loan TDRs are considered defaulted when principal and interest payments are more than 60 days past due. During the three months ended September 30, 2022, there were two commercial loan TDRs and 56 consumer loan TDRs with a combined recorded investment of $1 million that experienced payment defaults after modifications resulting in TDR status during 2021. During the three months ended September 30, 2021, there were two commercial loan TDRs and 33 consumer loan TDRs with a combined recorded investment of $2 million that experienced payment defaults after modifications resulting in TDR status during 2020.

During the nine months ended September 30, 2022, there were seven commercial loan TDRs and 146 consumer loan TDRs with a combined recorded investment of $11 million that experienced payment defaults after modifications resulting in TDR status during 2021. During the nine months ended September 30, 2021, there were five commercial loan TDRs and 98 consumer loan TDRs with a combined recorded investment of $4 million that experienced payment defaults after modifications resulting in TDR status during 2020.

Liability for Credit Losses on Off Balance Sheet Exposures

The liability for credit losses inherent in unfunded lending-related commitments, such as letters of credit and unfunded loan commitments, and certain financial guarantees is included in “accrued expense and other liabilities” on the balance sheet.

Changes in the liability for credit losses on off balance sheet exposures are summarized as follows:

Dollars in millions	Three months ended September 30, 2022	2021	Nine months ended September 30, 2022	2021
Balance at beginning of period	**$ 173**	$ 152	**160**	197
Provision (credit) for losses on off balance sheet exposures	**21**	—	**34**	(45)
Balance at end of period	**$ 194**	$ 152	**$ 194**	$ 152

5. Fair Value Measurements

In accordance with GAAP, Key measures certain assets and liabilities at fair value. Fair value is defined as the price to sell an asset or transfer a liability in an orderly transaction between market participants in our principal market. Additional information regarding our accounting policies for determining fair value is provided in Note 6 (“Fair Value Measurements”) and Note 1 (“Summary of Significant Accounting Policies”) under the heading “Fair Value Measurements” of our 2021 Form 10-K.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Certain assets and liabilities are measured at fair value on a recurring basis in accordance with GAAP. For more information on the valuation techniques used to measure classes of assets and liabilities reported at fair value on a recurring basis as well as the classification of each in the valuation hierarchy, refer to Note 6 ("Fair Value Measurements" in our 2021 Form 10-K. The following tables present these assets and liabilities at September 30, 2022, and December 31, 2021.

	September 30, 2022				December 31, 2021			
Dollars in millions	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
ASSETS MEASURED ON A RECURRING BASIS								
Trading account assets:								
U.S. Treasury, agencies and corporations	$ —	$ 847	$ —	$ 847	$ —	$ 530	$ —	$ 530
States and political subdivisions	—	68	—	68	—	96	—	96
Other mortgage-backed securities	—	133	—	133	—	44	—	44
Other securities	2	12	—	14	—	13	—	13
Total trading account securities	2	1,060	—	1,062	—	683	—	683
Commercial loans	—	6	—	6	—	18	—	18
Total trading account assets	2	1,066	—	1,068	—	701	—	701
Securities available for sale:								
U.S. Treasury, agencies and corporations	—	9,386	—	9,386	—	9,472	—	9,472
States and political subdivisions	—	—	—	—	—	—	—	—
Agency residential collateralized mortgage obligations	—	17,237	—	17,237	—	21,119	—	21,119
Agency residential mortgage-backed securities	—	3,985	—	3,985	—	5,122	—	5,122
Agency commercial mortgage-backed securities	—	9,391	—	9,391	—	9,651	—	9,651
Other securities	—	1	—	1	—	—	—	—
Total securities available for sale	$ —	$ 40,000	$ —	$ 40,000	$ —	$ 45,364	$ —	$ 45,364
Other investments:								
Principal investments:								
Direct	$ —	$ —	$ 1	$ 1	$ —	$ —	$ 1	$ 1
Indirect (measured at NAV) [a]	—	—	—	36	—	—	—	45
Total principal investments	—	—	1	37	—	—	1	46
Equity investments:								
Direct	3	—	2	5	24	—	9	33
Direct (measured at NAV) [a]	—	—	—	29	—	—	—	21
Indirect (measured at NAV) [a]	—	—	—	4	—	—	—	5
Total equity investments	3	—	2	38	24	—	9	59
Total other investments	3	—	3	75	24	—	10	105
Loans, net of unearned income (residential)	—	—	9	9	—	—	11	11
Loans held for sale (residential)	—	61	—	61	—	281	—	281
Derivative assets:								
Interest rate	—	227	(8)	219	—	774	33	807
Foreign exchange	180	45	—	225	$ 71	10	—	81
Commodity	—	1,857	—	1,857	—	1,330	—	1,330
Credit	—	—	—	—	—	—	1	1
Other	—	20	—	20	—	22	5	27
Derivative assets	180	2,148	(8)	2,321	71	2,136	39	2,246
Netting adjustments [b]	—	—	—	(720)	—	—	—	(284)
Total derivative assets	180	2,148	(8)	1,601	71	2,136	39	1,962
Total assets on a recurring basis at fair value	$ 185	$ 43,275	$ 4	$ 42,814	$ 95	$ 48,482	$ 60	$ 48,424
LIABILITIES MEASURED ON A RECURRING BASIS								
Bank notes and other short-term borrowings:								
Short positions	$ 143	$ 683	$ —	$ 826	$ 75	$ 513	$ —	$ 588
Derivative liabilities:								
Interest rate	—	1,429	—	1,429	—	253	—	253
Foreign exchange	172	45	—	217	66	10	—	76
Commodity	—	1,838	—	1,838	—	1,335	—	1,335
Credit	—	—	4	4	—	5	7	12
Other	—	34	3	37	—	11	—	11
Derivative liabilities	172	3,346	7	3,525	66	1,614	7	1,687
Netting adjustments [b]	—	—	—	(1,925)	—	—	—	(1,526)
Total derivative liabilities	172	3,346	7	1,600	66	1,614	7	161
Total liabilities on a recurring basis at fair value	$ 315	$ 4,029	$ 7	$ 2,426	$ 141	$ 2,127	$ 7	$ 749

(a) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

(b) Netting adjustments represent the amounts recorded to convert our derivative assets and liabilities from a gross basis to a net basis in accordance with the applicable accounting guidance. The net basis takes into account the impact of bilateral collateral and master netting agreements that allow us to settle all derivative contracts with a single counterparty on a net basis and to offset the net derivative position with the related cash collateral. Total derivative assets and liabilities include these netting adjustments.

The following table presents the fair value of our direct and indirect principal investments and related unfunded commitments at September 30, 2022, as well as financial support provided for the three and nine months ended September 30, 2022, and September 30, 2021.

			Financial support provided							
			Three months ended September 30,				Nine months ended September 30,			
	September 30, 2022		2022		2021		2022		2021	
Dollars in millions	Fair Value	Unfunded Commit-ments	Funded Commit-ments	Funded Other	Funded Commit-ments	Funded Other	Funded Commit-ments	Funded Other	Funded Commit-ments	Funded Other
INVESTMENT TYPE										
Direct investments	$ 1	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Indirect investments (measured at NAV) [a]	36	10	—	—	—	—	—	—	4	—
Total	$ 37	$ 10	$ —	$ —	$ —	$ —	$ —	$ —	$ 4	$ —

(a) Our indirect investments consist of buyout funds, venture capital funds, and fund of funds. These investments are generally not redeemable. Instead, distributions are received through the liquidation of the underlying investments of the fund. An investment in any one of these funds typically can be sold only with the approval of the fund's general partners. At September 30, 2022, no significant liquidation of the underlying investments has been communicated to Key. The purpose of funding our capital commitments to these investments is to allow the funds to make additional follow-on investments and pay fund expenses until the fund dissolves. We, and all other investors in the fund, are obligated to fund the full amount of our respective capital commitments to the fund based on our and their respective ownership percentages, as noted in the applicable Limited Partnership Agreement.

Changes in Level 3 Fair Value Measurements

The following table shows the components of the change in the fair values of our Level 3 financial instruments measured at fair value on a recurring basis for the three and nine months ended September 30, 2022, and September 30, 2021.

Dollars in millions	Beginning of Period Balance	Gains (Losses) Included in Other Comprehensive Income	Gains (Losses) Included in Earnings	Purchases	Sales	Settlements	Transfers Other	Transfers into Level 3	Transfers out of Level 3	End of Period Balance	Unrealized Gains (Losses) Included in Earnings
Nine months ended September 30, 2022											
Other investments											
Principal investments											
Direct [a]	$ 1	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 1	$ —
Equity investments											
Direct [a]	9	—	(3)	—	(4)	—	—	—	—	2	(3)
Loans, net of unearned income (residential)	11	—	(2)	—	(1)	—	1	—	—	9	—
Derivative instruments [b]											
Interest rate	33	—	(71) [c]	1	(2)	—	—	35 [d]	(4) [d]	(8)	—
Credit	(6)	—	2 [c]	—	—	—	—	—	—	(4)	—
Other [e]	5	—	— [c]	—	—	—	(8)	—	—	(3)	—
Three months ended September 30, 2022											
Other investments											
Principal investments											
Direct [a]	$ 1	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 1	$ —
Other indirect	—	—	—	—	—	—	—	—	—	—	—
Equity investments											
Direct [a]	6	—	—	—	(4)	—	—	—	—	2	—
Loans held for sale (residential)	—	—	—	—	—	—	—	—	—	—	—
Loans, net of unearned income (residential)	11	—	(1)	—	(1)	—	—	—	—	9	—
Derivative instruments [b]											
Interest rate	(3)	—	(16) [c]	(3)	—	—	—	5 [d]	9 [d]	(8)	—
Credit	(3)	—	— [c]	—	—	—	(1)	—	—	(4)	—
Other [e]	1	—	1 [c]	—	—	—	(5)	—	—	(3)	—

Dollars in millions	Beginning of Period Balance	Gains (Losses) Included in Other Comprehensive Income	Gains (Losses) Included in Earnings	Purchases	Sales	Settlements	Transfers Other	Transfers into Level 3	Transfers out of Level 3	End of Period Balance	Unrealized Gains (Losses) Included in Earnings
Nine months ended September 30, 2021											
Securities available for sale											
Other securities	$ 13	$ 9	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 22	$ —
Other investments											
Principal investments											
Direct [a]	1	—	—	—	—	—	—	—	—	1	—
Equity investments											
Direct [a]	13	—	(1)	—	—	—	—	—	(3)	9	(1)
Loans held for sale (residential)	—	—	—	—	(1)	—	1	—	—	—	—
Loans, net of unearned income (residential)	11	—	—	—	(2)	—	1	—	—	10	—
Derivative instruments [b]											
Interest rate	56	—	(20) [c]	1	(7)	—	—	21 [d]	(17) [d]	34	—
Credit	(10)	—	4 [c]	—		—	—	—		(6)	—
Other [e]	32	—	(3) [c]	—	—	—	(23)	—	—	6	—
Three months ended September 30, 2021											
Securities available for sale											
Other securities	$ 22	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 22	$ —
Other investments											
Principal investments											
Direct [a]	1	—	—	—	—	—	—	—	—	1	—
Equity investments											
Direct [a]	9		—							9	—
Loans held for sale (residential)	—	—	—	—	$ —	—	$ —	—	—	—	—
Loans, net of unearned income (residential)	11	—	—	—	—	—	—	—	—	10	—
Derivative instruments [b]											
Interest rate	35	—	(5) [c]	$ 1	(1)			9 [d]	(5) [d]	34	
Credit	(5)	—	— [c]	(1)	—	—	—	—	—	(6)	—
Other [e]	13	—	— [c]	—		—	(7)	—	—	6	—

(a) Realized and unrealized gains and losses on principal investments and other equity investments are reported in “other income” on the income statement.
(b) Amounts represent Level 3 derivative assets less Level 3 derivative liabilities.
(c) Realized and unrealized gains and losses on derivative instruments are reported in “corporate services income” and “other income” on the income statement.
(d) Certain instruments previously classified as Level 2 were transferred to Level 3 because Level 3 unobservable inputs became significant. Certain derivatives previously classified as Level 3 were transferred to Level 2 because Level 3 unobservable inputs became less significant.
(e) Amounts represent Level 3 interest rate lock commitments.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Certain assets and liabilities are measured at fair value on a nonrecurring basis in accordance with GAAP. The adjustments to fair value generally result from the application of accounting guidance that requires assets and liabilities to be recorded at the lower of cost or fair value, or assessed for impairment. For more information on the valuation techniques used to measure classes of assets and liabilities measured at fair value on a nonrecurring basis, refer to Note 6 (“Fair Value Measurements”) in our 2021 Form 10-K. There were no liabilities measured at fair value on a nonrecurring basis at September 30, 2022, and December 31, 2021.

The following table presents our assets measured at fair value on a nonrecurring basis at September 30, 2022, and December 31, 2021:

	September 30, 2022				December 31, 2021			
Dollars in millions	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
ASSETS MEASURED ON A NONRECURRING BASIS								
Collateral-dependent loans	**$ —**	**$ —**	**$ 69**	**$ 69**	$ —	$ —	$ 28	$ 28
Loans held for sale	**—**	**—**	**—**	**—**	—	—	—	—
Accrued income and other assets	**—**	**—**	**17**	**17**	—	—	80	80
Total assets on a nonrecurring basis at fair value	**$ —**	**$ —**	**$ 86**	**$ 86**	$ —	$ —	$ 108	$ 108

We have other investments in equity securities that do not have readily determinable fair values and do not qualify for the practical expedient to measure the investment using a net asset value per share. We have elected to measure these securities at cost less impairment plus or minus adjustments due to observable orderly transactions. Impairment is recorded when there is evidence that the expected fair value of the investment has declined to below the recorded cost. At each reporting period, we assess if these investments continue to qualify for this measurement alternative. At September 30, 2022, and December 31, 2021, the carrying amount of equity investments under this method was $214 million and $173 million, respectively. One million in impairment was recorded for the three months ended September 30, 2022.

Quantitative Information about Level 3 Fair Value Measurements

The range and weighted-average of the significant unobservable inputs used to fair value our material Level 3 recurring and nonrecurring assets at September 30, 2022, and December 31, 2021, along with the valuation techniques used, are shown in the following table:

Dollars in millions	Level 3 Asset (Liability)				Range (Weighted-Average) [a], [b]	
	September 30, 2022	**December 31, 2021**	**Valuation Technique**	**Significant Unobservable Input**	**September 30, 2022**	**December 31, 2021**
Recurring						
Loans, net of unearned income (residential)	**$ 9**	$ 11	Market comparable pricing	Comparability factor	**53.47 - 85.89% (80.88%)**	64.50-97.30% (94.24%)
Derivative instruments:						
Interest rate	**(8)**	33	Discounted cash flows	Probability of default	**.02 - 100% (14.90%)**	.02 - 100% (8.88%)
				Loss given default	**0 - 1 (.499)**	0 - 1 (.500)
Insignificant level 3 assets, net of liabilities[c]	**(4)**	9				
Nonrecurring						
Collateral-dependent loans	**69**	28	Fair value of collateral	Discount rate	**0 - 85.00% (26.00%)**	0 - 10.00% (8.00%)
Accrued income and other assets:						
OREO and other Level 3 assets[d]	**17**	13	Appraised value	Appraised value	**N/M**	N/M

(a) The weighted average of significant unobservable inputs is calculated using a weighting relative to fair value.
(b) For significant unobservable inputs with no range, a single figure is reported to denote the single quantitative factor used.
(c) Represents the aggregate amount of Level 3 assets and liabilities measured at fair value on a recurring basis that are individually and in the aggregate insignificant. The amount includes certain equity investments and certain financial derivative assets and liabilities.
(d) Excludes $67 million pertaining to servicing assets at December 31, 2021. No servicing assets required nonrecurring valuation adjustments at September 30, 2022. Refer to Note 8 (“Mortgage Servicing Assets”) for significant unobservable inputs pertaining to these assets.

Fair Value Disclosures of Financial Instruments

The Levels in the fair value hierarchy ascribed to our financial instruments and the related carrying amounts at September 30, 2022, and December 31, 2021, are shown in the following tables. Assets and liabilities are further arranged by measurement category.

	September 30, 2022						
		Fair Value					
Dollars in millions	Carrying Amount	Level 1	Level 2	Level 3	Measured at NAV	Netting Adjustment	Total
ASSETS (by measurement category)							
Fair value - net income							
Trading account assets [b]	$ 1,068	$ 2	$ 1,066	$ —	$ —	$ —	$ 1,068
Other investments [b]	1,272	3	—	1,199	70	—	1,272
Loans, net of unearned income (residential) [d]	9	—	—	9	—	—	9
Loans held for sale (residential) [b]	61	—	61	—	—	—	61
Derivative assets - trading [b]	1,535	181	2,171	(8)	—	(809) [f]	1,535
Fair value - OCI							
Securities available for sale [b]	40,000	—	40,000	—	—	—	40,000
Derivative assets - hedging [b][g]	66	—	(23)	—	—	89 [f]	66
Amortized cost							
Held-to-maturity securities [c]	8,163	—	7,596	—	—	—	7,596
Loans, net of unearned income [d]	115,038	—	—	109,738	—	—	109,738
Loans held for sale [b]	987	—	—	987	—	—	987
Other							
Cash and other short-term investments [a]	5,613	5,613	—	—	—	—	5,613
LIABILITIES (by measurement category)							
Fair value - net income							
Derivative liabilities - trading [b]	$ 1,590	$ 172	$ 3,321	$ 7	$ —	$ (1,910) [f]	$ 1,590
Fair value - OCI							
Derivative liabilities - hedging [b][g]	10	—	25	—	—	(15) [f]	10
Amortized cost							
Time deposits [e]	5,847	—	5,837	—	—	—	5,837
Short-term borrowings [a]	8,800	143	8,657	—	—	—	8,800
Long-term debt [e]	18,257	10,960	6,638	—	—	—	17,598
Other							
Deposits with no stated maturity [a]	139,008	—	139,008	—	—	—	139,008

	December 31, 2021						
		Fair Value					
Dollars in millions	Carrying Amount	Level 1	Level 2	Level 3	Measured at NAV	Netting Adjustment	Total
ASSETS (by measurement category)							
Fair value - net income							
Trading account assets [b]	$ 701	$ —	$ 701	$ —	$ —	$ —	$ 701
Other investments [b]	639	24	—	543	72	—	639
Loans, net of unearned income (residential) [d]	11	—	—	11	—	—	11
Loans held for sale (residential) [b]	281	—	281	—	—	—	281
Derivative assets - trading [b]	1,887	$ 71	2,096	40	—	(320) [f]	1,887
Fair value - OCI							
Securities available for sale [b]	45,364	—	45,364	—	—	—	45,364
Derivative assets - hedging [b][g]	75	—	39	—	—	36 [f]	75
Amortized cost							
Held-to-maturity securities [c]	7,539	—	7,665	—	—	—	7,665
Loans, net of unearned income [d]	100,782	—	—	100,428	—	—	100,428
Loans held for sale [b]	2,448	—	—	2,448	—	—	2,448
Other							
Short-term investments - U.S. Treasury Bills [b]	—	—	—	—	—	—	—
Cash and other short-term investments [a]	11,923	11,923	—	—	—	—	11,923
LIABILITIES (by measurement category)							
Fair value - net income							
Derivative liabilities - trading [b]	$ 157	$ 66	$ 1,610	$ 7	$ —	$ (1,526) [f]	$ 157
Fair value - OCI							
Derivative liabilities - hedging [b][g]	4	—	4	—	—	— [f]	4
Amortized cost							
Time deposits [e]	3,858	—	3,866	—	—	—	3,866
Short-term borrowings [a]	761	75	686	—	—	—	761
Long-term debt [e]	12,042	11,813	705	—	—	—	12,518
Other							
Deposits with no stated maturity [a]	148,714	—	148,714	—	—	—	148,714

Valuation Methods and Assumptions

(a) Fair value equals or approximates carrying amount. The fair value of deposits with no stated maturity does not take into consideration the value ascribed to core deposit intangibles.

(b) Information pertaining to our methodology for measuring the fair values of these assets and liabilities is included in the sections entitled "Qualitative Disclosures of Valuation Techniques" and "Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis" within our 2021 Form 10-K Note 6 ("Fair Value Measurements"). Investments accounted for under the cost method (or cost less impairment adjusted for observable price changes for certain equity investments) are classified as Level 3 assets. These investments are not actively traded in an open market as sales for these types of investments are rare. The carrying amount of the investments carried at cost are adjusted for declines in value if they are considered to be other-than-temporary (or due to observable orderly transactions of the same issuer for equity investments eligible for the cost less impairment measurement alternative). These adjustments are included in "other income" on the income statement.

(c) Fair values of held-to-maturity securities are determined by using models that are based on security-specific details, as well as relevant industry and economic factors. The most significant of these inputs are quoted market prices, interest rate spreads on relevant benchmark securities, and certain prepayment assumptions. We review the valuations derived from the models to ensure that they are reasonable and consistent with the values placed on similar securities traded in the secondary markets.

(d) The fair value of loans is based on the present value of the expected cash flows. The projected cash flows are based on the contractual terms of the loans, adjusted for prepayments and use of a discount rate based on the relative risk of the cash flows, taking into account the loan type, maturity of the loan, liquidity risk, servicing costs, and a required return on debt and capital. In addition, an incremental liquidity discount is applied to certain loans, using historical sales of loans during periods of similar economic conditions as a benchmark. The fair value of loans includes lease financing receivables at their aggregate carrying amount, which is equivalent to their fair value.

(e) Fair values of time deposits and long-term debt classified as Level 2 are based on discounted cash flows utilizing relevant market inputs.

(f) Netting adjustments represent the amounts recorded to convert our derivative assets and liabilities from a gross basis to a net basis in accordance with the applicable accounting guidance. The net basis takes into account the impact of bilateral collateral and master netting agreements that allow us to settle all derivative contracts with a single counterparty on a net basis and to offset the net derivative position with the related cash collateral. Total derivative assets and liabilities include these netting adjustments.

(g) Derivative assets-hedging and derivative liabilities-hedging includes both cash flow and fair value hedges. Additional information regarding our accounting policies for cash flow and fair value hedges is provided in Note 1 ("Summary of Significant Accounting Policies") under the heading "Derivatives and Hedging" beginning on page 113 of our 2021 Form 10-K.

Discontinued assets — education lending business. Our discontinued assets include government-guaranteed and private education loans originated through our education lending business that was discontinued in September 2009. This portfolio consists of loans recorded at carrying value with appropriate valuation reserves, and loans in portfolio recorded at fair value. All of these loans were excluded from the table above as follows:

- Loans at carrying value, net of allowance, of $467 million ($383 million at fair value) at September 30, 2022, and $567 million ($486 million at fair value) at December 31, 2021;
- Portfolio loans at fair value of $1 million at September 30, 2022, and $2 million at December 31, 2021.

These loans and securities are classified as Level 3 because we rely on unobservable inputs when determining fair value since observable market data is not available.

6. Securities

The amortized cost, unrealized gains and losses, and approximate fair value of our securities available for sale and held-to-maturity securities are presented in the following tables. Gross unrealized gains and losses represent the difference between the amortized cost and the fair value of securities on the balance sheet as of the dates indicated. Accordingly, the amount of these gains and losses may change in the future as market conditions change.

	September 30, 2022				December 31, 2021			
Dollars in millions	Amortized Cost [a]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Amortized Cost [b]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
SECURITIES AVAILABLE FOR SALE								
U.S. Treasury, agencies, and corporations	**$ 10,062**	**$ —**	**$ 676**	**$ 9,386**	$ 9,573	$ —	$ 101	$ 9,472
Agency residential collateralized mortgage obligations	**20,706**	**—**	**3,469**	**17,237**	21,430	99	410	21,119
Agency residential mortgage-backed securities	**4,742**	**—**	**757**	**3,985**	5,137	37	52	5,122
Agency commercial mortgage-backed securities	**10,780**	**2**	**1,391**	**9,391**	9,753	188	290	9,651
Other securities	**1**	**—**	**—**	**1**	—	—	—	—
Total securities available for sale	**$ 46,291**	**$ 2**	**$ 6,293**	**$ 40,000**	$ 45,893	$ 324	$ 853	$ 45,364
HELD-TO-MATURITY SECURITIES								
Agency residential collateralized mortgage obligations	**$ 3,818**	**$ —**	**$ 251**	**$ 3,567**	$ 2,196	$ 33	$ —	$ 2,229
Agency residential mortgage-backed securities	**185**	**—**	**18**	**167**	164	6	—	170
Agency commercial mortgage-backed securities	**2,524**	**1**	**190**	**2,335**	2,678	118	—	2,796
Asset-backed securities [c]	**1,621**	**—**	**108**	**1,513**	2,485	—	31	2,454
Other securities	**15**	**—**	**1**	**14**	16	—	—	16
Total held-to-maturity securities	**$ 8,163**	**$ 1**	**$ 568**	**$ 7,596**	$ 7,539	$ 157	$ 31	$ 7,665

(a) Amortized cost amounts exclude accrued interest receivable which is recorded within Other Assets on the balance sheet. At September 30, 2022, accrued interest receivable on available for sale securities and held-to-maturity securities totaled $66 million and $18 million, respectively.

(b) Amortized cost amounts exclude accrued interest receivable which is recorded within Other Assets on the balance sheet. At December 31, 2021, accrued interest receivable on available for sale securities and held-to-maturity securities totaled $59 million and $15 million, respectively.

(c) Includes $1.6 billion of securities as of September 30, 2022, and $2.5 billion of securities as of December 31, 2021, related to the purchase of senior notes from a securitization collateralized by sold indirect auto loans.

The following table summarizes securities in an unrealized loss position for which an allowance for credit losses has not been recorded as of September 30, 2022, and December 31, 2021.

	Duration of Unrealized Loss Position					
	Less than 12 Months		12 Months or Longer		Total	
Dollars in millions	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
September 30, 2022						
Securities available for sale:						
U.S Treasury, agencies, and corporations	**$ 1,197**	**$ 94**	**$ 8,189**	**$ 582**	**$ 9,386**	**$ 676**
Agency residential collateralized mortgage obligations	**9,673**	**1,489**	**7,562**	**1,980**	**17,235**	**3,469**
Agency residential mortgage-backed securities	**1,584**	**219**	**2,398**	**538**	**3,982**	**757**
Agency commercial mortgage-backed securities	**5,221**	**383**	**4,104**	**1,008**	**9,325**	**1,391**
Held-to-maturity securities:						
Agency residential collateralized mortgage obligations	**3,407**	**250**	**9**	**1**	**3,416**	**251**
Agency residential mortgage-backed securities	**167**	**18**	**—**	**—**	**167**	**18**
Agency commercial mortgage-backed securities	**2,324**	**190**	**—**	**—**	**2,324**	**190**
Asset-backed securities	**1,511**	**108**	**1**	**—** [a]	**1,512**	**108**
Other securities	**7**	**—** [a]	**3**	**1**	**10**	**1**
Total securities in an unrealized loss position	**$ 25,091**	**$ 2,751**	**$ 22,266**	**$ 4,110**	**$ 47,357**	**$ 6,861**
December 31, 2021						
Securities available for sale:						
U.S. Treasury, agencies, and corporations	$ 9,078	$ 98	$ 243	$ 3	$ 9,321	$ 101
Agency residential collateralized mortgage obligations	12,603	315	1,255	95	13,858	410
Agency residential mortgage-backed securities	3,793	49	178	3	3,971	52
Agency commercial mortgage-backed securities	1,645	75	3,834	215	5,479	290
Held-to-maturity securities:						
Agency residential collateralized mortgage obligations	96	— [b]	—	—	96	—
Asset-backed securities	2,450	31	1	— [b]	2,451	31
Other securities	15	— [b]	—	—	15	—
Total securities in an unrealized loss position	$ 29,680	$ 568	$ 5,511	$ 316	$ 35,191	$ 884

(a) At September 30, 2022, gross unrealized losses totaled less than $1 million for other securities held-to-maturity with a loss duration of less than 12 months and asset-backed securities held-to-maturity with a loss duration of 12 months or longer.

(b) At December 31, 2021, gross unrealized losses totaled less than $1 million for other securities held-to-maturity and agency residential collateralized mortgage obligations held-to-maturity with a loss duration of less than 12 months. At December 31, 2021, gross unrealized losses totaled less than $1 million for asset backed securities held-to-maturity with a loss duration greater than 12 months or longer.

Based on our evaluation at September 30, 2022, an allowance for credit losses has not been recorded nor have unrealized losses been recognized into income. The issuers of the securities are of high credit quality and have a history of no credit losses, management does not intend to sell and it is likely that management will not be required to sell the securities prior to their anticipated recovery, and the decline in fair value is largely attributed to changes in interest rates and other market conditions. The issuers continue to make timely principal and interest payments.

At September 30, 2022, securities available for sale and held-to-maturity securities totaling $12.6 billion were pledged to secure securities sold under repurchase agreements, to secure public and trust deposits, to facilitate access to secured funding, and for other purposes required or permitted by law.

The following table shows our securities by remaining maturity. CMOs, other mortgage-backed securities, and asset-backed securities in the available for sale portfolio and held-to-maturity portfolio are presented based on their expected average lives. The remaining securities, in both the available-for-sale and held-to-maturity portfolios, are presented based on their remaining contractual maturity. Actual maturities may differ from expected or contractual maturities since borrowers have the right to prepay obligations with or without prepayment penalties.

September 30, 2022	Securities Available for Sale		Held to Maturity Securities	
Dollars in millions	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	$ 620	$ 599	$ 24	$ 23
Due after one through five years	16,918	15,566	4,526	4,203
Due after five through ten years	21,439	17,962	2,500	2,303
Due after ten years	7,314	5,873	1,113	1,067
Total	$ 46,291	$ 40,000	$ 8,163	$ 7,596

7. Derivatives and Hedging Activities

We are a party to various derivative instruments, mainly through our subsidiary, KeyBank. The primary derivatives that we use are interest rate swaps, caps, floors, forwards, and futures; foreign exchange contracts; commodity derivatives; and credit derivatives. Generally, these instruments help us manage exposure to interest rate risk, mitigate the credit risk inherent in our loan portfolio, hedge against changes in foreign currency exchange rates, and meet client financing and hedging needs.

At September 30, 2022, after taking into account the effects of bilateral collateral and master netting agreements, we had $66 million of derivative assets and $10 million of derivative liabilities that relate to contracts entered into for hedging purposes. As of the same date, after taking into account the effects of bilateral collateral and master netting agreements and a reserve for potential future losses, we had derivative assets of $1.5 billion and derivative liabilities of $1.6 billion that were not designated as hedging instruments. These positions are primarily comprised of derivative contracts entered into for client accommodation purposes.

Additional information regarding our accounting policies for derivatives is provided in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Derivatives and Hedging” beginning on page 113 of our 2021 Form 10-K. Our derivative strategies and related risk management objectives are described in Note 8 (“Derivatives and Hedging Activities”) beginning on page 141 of our 2021 Form 10-K.

Fair Values, Volume of Activity, and Gain/Loss Information Related to Derivative Instruments

The following table summarizes the fair values of our derivative instruments on a gross and net basis as of September 30, 2022, and December 31, 2021. The derivative asset and liability balances are presented on a gross basis, prior to the application of bilateral collateral and master netting agreements, but after the variation margin payments with central clearing organizations have been applied as settlement, as applicable. Total derivative assets and liabilities are adjusted to take into account the impact of legally enforceable master netting agreements that allow us to settle all derivative contracts with a single counterparty on a net basis and to offset the net derivative position with the related cash collateral. Securities collateral related to legally enforceable master netting agreements is not offset on the balance sheet. Our derivative instruments are included in “accrued income and other assets” or “accrued expenses and other liabilities” on the balance sheet, as follows:

	September 30, 2022			December 31, 2021		
		Fair Value[a]			Fair Value[a]	
Dollars in millions	Notional Amount	Derivative Assets	Derivative Liabilities	Notional Amount	Derivative Assets	Derivative Liabilities
Derivatives designated as hedging instruments:						
Interest rate	**$ 40,624**	**$ (22)**	**$ 25**	$ 38,654	$ 39	$ 4
Derivatives not designated as hedging instruments:						
Interest rate	**78,319**	**241**	**1,404**	72,088	768	249
Foreign exchange	**8,405**	**225**	**217**	9,073	81	76
Commodity	**17,016**	**1,857**	**1,838**	14,151	1,330	1,335
Credit	**116**	**—**	**4**	465	1	12
Other [b]	**1,484**	**20**	**37**	3,330	27	11
Total	**105,340**	**2,343**	**3,500**	99,107	2,207	1,683
Netting adjustments [c]	**—**	**(720)**	**(1,925)**	—	(284)	(1,526)
Net derivatives in the balance sheet	**145,964**	**1,601**	**1,600**	137,761	1,962	161
Other collateral [d]	**—**	**—**	**(12)**	—	(1)	—
Net derivative amounts	**$ 145,964**	**$ 1,601**	**$ 1,588**	$ 137,761	$ 1,961	$ 161

(a) We take into account bilateral collateral and master netting agreements that allow us to settle all derivative contracts held with a single counterparty on a net basis, and to offset the net derivative position with the related cash collateral when recognizing derivative assets and liabilities. As a result, we could have derivative contracts with negative fair values included in derivative assets and contracts with positive fair values included in derivative liabilities.
(b) Other derivatives include interest rate lock commitments related to our residential and commercial banking activities, forward sale commitments related to our residential mortgage banking activities, forward purchase and sales contracts consisting of contractual commitments associated with “to be announced” securities and when-issued securities, and other customized derivative contracts.
(c) Netting adjustments represent the amounts recorded to convert our derivative assets and liabilities from a gross basis to a net basis in accordance with the applicable accounting guidance.
(d) Other collateral represents the amount that cannot be used to offset our derivative assets and liabilities from a gross basis to a net basis in accordance with the applicable accounting guidance. The other collateral consists of securities and is exchanged under bilateral collateral and master netting agreements that allow us to offset the net derivative position with the related collateral. The application of the other collateral cannot reduce the net derivative position below zero. Therefore, excess other collateral, if any, is not reflected above.

Fair value hedges. During the nine months ended September 30, 2022, we did not exclude any portion of fair value hedging instruments from the assessment of hedge effectiveness.

The following tables summarize the amounts that were recorded on the balance sheet as of September 30, 2022, and December 31, 2021, related to cumulative basis adjustments for fair value hedges.

		September 30, 2022	
Dollars in millions	**Balance sheet line item in which the hedge item is included**	**Carrying amount of hedged item [a]**	**Hedge accounting basis adjustment [b]**
Interest rate contracts	Long-term debt	**$ 9,409**	**$ (606)**
Interest rate contracts	Securities Available for Sale[c]	**405**	**51**

		December 31, 2021	
	Balance sheet line item in which the hedge item is included	**Carrying amount of hedged item [a]**	**Hedge accounting basis adjustment [b]**
Interest rate contracts	Long-term debt	$ 7,553	$ 138
Interest rate contracts	Securities Available for Sale[c]	6,280	134

(a) The carrying amount represents the portion of the asset or liability designated as the hedged item.
(b) Basis adjustments related to de-designated hedged items that no longer qualify as fair value hedges reduced the hedge accounting basis adjustment by $7 million and $7 million at September 30, 2022, and December 31, 2021, respectively,
(c) These amounts are designed as fair value hedges under the last-of-layer method. The carrying amount represents the amortized costs basis of the prepayable financial assets used to designate hedging relationships in which the hedged item is the last layer expected to be remaining at the end of the relationship. At September 30, 2022, and December 31, 2021, the amortized costs of the closed portfolios in these hedging relationships was $720 million and $7.7 billion, respectively.

Cash flow hedges. During the nine-month period ended September 30, 2022, we did not exclude any portion of cash flow hedging instruments from the assessment of hedge effectiveness.

Considering the interest rates, yield curves, and notional amounts as of September 30, 2022, we expect to reclassify an estimated $566 million of after-tax net losses on derivative instruments designated as cash flow hedges from AOCI to income during the next 12 months. In addition, we expect to reclassify approximately $3 million of net losses related to terminated cash flow hedges from AOCI to income during the next 12 months. These reclassified amounts could differ from actual amounts recognized due to changes in interest rates hedge de-designations and the addition of other hedges subsequent to September 30, 2022. As of September 30, 2022, the maximum length of time over which we hedge forecasted transactions is 4.92 years.

The following tables summarize the effect of fair value and cash flow hedge accounting on the income statement for the three- and nine-month periods ended September 30, 2022, and September 30, 2021.

	Location and amount of net gains (losses) recognized in income on fair value and cash flow hedging relationships			
Dollars in millions	**Interest expense – long-term debt**	**Interest income – loans**	**Interest Income - securities**	**Investment banking and debt placement fees**
Three months ended September 30, 2022				
Total amounts presented in the consolidated statement of income	**$ (146)**	**$ 1,134**	**$ 196**	**$ 154**
Net gains (losses) on fair value hedging relationships				
Interest contracts				
Recognized on hedged items	**$ 359**	**$ —**	**$ (14)**	**$ —**
Recognized on derivatives designated as hedging instruments	**(367)**	**—**	**16**	**—**
Net income (expense) recognized on fair value hedges	**$ (8)**	**$ —**	**$ 2**	**$ —**
Net gain (loss) on cash flow hedging relationships				
Interest contracts				
Realized gains (losses) (pre-tax) reclassified from AOCI into net income	**$ (1)**	**$ (66)**	**$ —**	**$ 2**
Net income (expense) recognized on cash flow hedges	**$ (1)**	**$ (66)**	**$ —**	**$ 2**
Three months ended September 30, 2021				
Total amounts presented in the consolidated statement of income	$ (54)	$ 882	$ 135	$ 235
Net gains (losses) on fair value hedging relationships				
Interest contracts				
Recognized on hedged items	$ 37	$ —	$ (38)	$ —
Recognized on derivatives designated as hedging instruments	(8)	—	39	—
Net income (expense) recognized on fair value hedges	$ 29	$ —	$ 1	$ —
Net gain (loss) on cash flow hedging relationships				
Interest contracts				
Realized gains (losses) (pre-tax) reclassified from AOCI into net income	$ (1)	$ 79	$ —	$ (1)
Net income (expense) recognized on cash flow hedges	$ (1)	$ 79	$ —	$ (1)

Dollars in millions	Location and amount of net gains (losses) recognized in income on fair value and cash flow hedging relationships			
	Interest expense – long-term debt	Interest income – loans	Interest Income - Securities	Investment banking and debt placement fees
Nine months ended September 30, 2022				
Total amounts presented in the consolidated statement of income	**$ (256)**	**$ 2,894**	**$ 557**	**$ 466**
Net gains (losses) on fair value hedging relationships				
Interest contracts				
Recognized on hedged items	**$ 744**	**$ —**	**$ (341)**	**$ —**
Recognized on derivatives designated as hedging instruments	**(710)**	**—**	**350**	**—**
Net income (expense) recognized on fair value hedges	**$ 34**	**$ —**	**$ 9**	**$ —**
Net gain (loss) on cash flow hedging relationships				
Interest contracts				
Realized gains (losses) (pre-tax) reclassified from AOCI into net income	**$ (3)**	**$ 16**	**$ —**	**$ 9**
Net income (expense) recognized on cash flow hedges	**$ (3)**	**$ 16**	**$ —**	**$ 9**
Nine months ended September 30, 2021				
Total amounts presented in the consolidated statement of income	$ (168)	$ 2,659	$ 398	$ 614
Net gains (losses) on fair value hedging relationships				
Interest contracts				
Recognized on hedged items	$ 210	$ —	$ (147)	$ —
Recognized on derivatives designated as hedging instruments	(113)	—	147	—
Net income (expense) recognized on fair value hedges	$ 97	$ —	$ —	$ —
Net gain (loss) on cash flow hedging relationships				
Interest contracts				
Realized gains (losses) (pre-tax) reclassified from AOCI into net income	$ (3)	$ 253	$ —	$ —
Net income (expense) recognized on cash flow hedges	$ (3)	$ 253	$ —	$ —

The following tables summarize the pre-tax net gains (losses) on our cash flow hedges for the three- and nine-month periods ended September 30, 2022, and September 30, 2021, and where they are recorded on the income statement. The table includes net gains (losses) recognized in OCI during the period and net gains (losses) reclassified from OCI into income during the current period.

Dollars in millions	Net Gains (Losses) Recognized in OCI	Income Statement Location of Net Gains (Losses) Reclassified From OCI Into Income	Net Gains (Losses) Reclassified From OCI Into Income
Three months ended September 30, 2022			
Cash Flow Hedges			
Interest rate	**$ (709)**	Interest income — Loans	**$ (66)**
Interest rate	**3**	Interest expense — Long-term debt	**(1)**
Interest rate	**—**	Investment banking and debt placement fees	**2**
Total	**$ (706)**		**$ (65)**
Three months ended September 30, 2021			
Cash Flow Hedges			
Interest rate	$ (2)	Interest income — Loans	$ 79
Interest rate	—	Interest expense — Long-term debt	(1)
Interest rate	4	Investment banking and debt placement fees	(1)
Total	$ 2		$ 77

Dollars in millions	Net Gains (Losses) Recognized in OCI	Income Statement Location of Net Gains (Losses) Reclassified From OCI Into Income	Net Gains (Losses) Reclassified From OCI Into Income[a]
Nine months ended September 30, 2022			
Cash Flow Hedges			
Interest rate	**$ (1,620)**	Interest income — Loans	**$ 16**
Interest rate	**7**	Interest expense — Long-term debt	**(3)**
Interest rate	**12**	Investment banking and debt placement fees	**9**
Total	**$ (1,601)**		**$ 22**
Nine months ended September 30, 2021			
Cash Flow Hedges			
Interest rate	$ (144)	Interest income — Loans	$ 253
Interest rate	2	Interest expense — Long-term debt	(3)
Interest rate	9	Investment banking and debt placement fees	—
Total	$ (133)		$ 250

Nonhedging instruments

The following table summarizes the pre-tax net gains (losses) on our derivatives that are not designated as hedging instruments for the three- and nine-month periods ended September 30, 2022, and September 30, 2021, and where they are recorded on the income statement.

	Three months ended September 30, 2022				Three months ended September 30, 2021			
Dollars in millions	Corporate services income	Consumer mortgage income	Other income	Total	Corporate services income	Consumer mortgage income	Other income	Total
NET GAINS (LOSSES)								
Interest rate	$ 11	$ —	$ (2)	$ 9	$ 8	$ —	$ —	$ 8
Foreign exchange	12	—	—	12	12	—	—	12
Commodity	5	—	—	5	4	—	—	4
Credit	—	—	(17)	(17)	1	—	(9)	(8)
Other	—	4	30	34	—	—	—	—
Total net gains (losses)	$ 28	$ 4	$ 11	$ 43	$ 25	$ —	$ (9)	$ 16

	Nine months ended September 30, 2022				Nine months ended September 30, 2021			
Dollars in millions	Corporate services income	Consumer mortgage income	Other income	Total	Corporate services income	Consumer mortgage income	Other income	Total
NET GAINS (LOSSES)								
Interest rate	$ 37	$ —	$ 6	$ 43	$ 19	$ —	$ 1	$ 20
Foreign exchange	37	—	—	37	34	—	—	34
Commodity	13	—	—	13	12	—	—	12
Credit	1	—	(32)	(31)	5	—	(27)	(22)
Other	—	2	14	16	—	13	(22)	(9)
Total net gains (losses)	$ 88	$ 2	$ (12)	$ 78	$ 70	$ 13	$ (48)	$ 35

Counterparty Credit Risk

We hold collateral in the form of cash and highly rated securities issued by the U.S. Treasury, government-sponsored enterprises, or GNMA. Cash collateral of $31 million was netted against derivative assets on the balance sheet at September 30, 2022, compared to $100 million of cash collateral netted against derivative assets at December 31, 2021. The cash collateral netted against derivative liabilities totaled $1.2 billion at September 30, 2022, and $1.1 billion at December 31, 2021. Our means of mitigating and managing exposure to credit risk on derivative contracts is described in Note 8 (“Derivatives and Hedging Activities”) beginning on page 141 of our 2021 Form 10-K under the heading “Counterparty Credit Risk.”

The following table summarizes the fair value of our derivative assets by type at the dates indicated. These assets represent our gross exposure to potential loss after taking into account the effects of bilateral collateral and master netting agreements and other means used to mitigate risk.

Dollars in millions	September 30, 2022	December 31, 2021
Interest rate	$ 163	$ 696
Foreign exchange	127	31
Commodity	1,324	1,108
Credit	—	—
Other	18	27
Derivative assets before collateral	1,632	1,862
Plus(Less): Related collateral	(31)	100
Total derivative assets	$ 1,601	$ 1,962

We enter into derivative transactions with two primary groups: broker-dealers and banks, and clients. Given that these groups have different economic characteristics, we have different methods for managing counterparty credit exposure and credit risk.

We enter into transactions with broker-dealers and banks for various risk management purposes. These types of transactions are primarily high dollar volume. We enter into bilateral collateral and master netting agreements with these counterparties. We clear certain types of derivative transactions with these counterparties, whereby central clearing organizations become the counterparties to our derivative contracts. In addition, we enter into derivative contracts through swap execution facilities. Swap clearing and swap execution facilities reduce our exposure to

counterparty credit risk. At September 30, 2022, we had gross exposure of $443 million to broker-dealers and banks. We had net exposure of $244 million after the application of master netting agreements and cash collateral, where such qualifying agreements exist. We had net exposure of $243 million after considering $1 million of additional collateral held in the form of securities.

We enter into transactions using master netting agreements with clients to accommodate their business needs. In most cases, we mitigate our credit exposure by cross-collateralizing these transactions to the underlying loan collateral. For transactions that are not clearable, we mitigate our market risk by buying and selling U.S. Treasuries and Eurodollar futures or entering into offsetting positions. Due to the cross-collateralization to the underlying loan, we typically do not exchange cash or marketable securities collateral in connection with these transactions. To address the risk of default associated with these contracts, we have established a CVA reserve (included in "accrued income and other assets") in the amount of $25 million at September 30, 2022. The CVA is calculated from potential future exposures, expected recovery rates, and market-implied probabilities of default. At September 30, 2022, we had gross exposure of $1.5 billion to client counterparties and other entities that are not broker-dealers or banks for derivatives that have associated master netting agreements. We had net exposure of $1.4 billion on our derivatives with these counterparties after the application of master netting agreements, collateral, and the related reserve.

Credit Derivatives

We are a buyer and, under limited circumstances, may be a seller of credit protection through the credit derivative market. We purchase credit derivatives to manage the credit risk associated with specific commercial lending and swap obligations as well as exposures to debt securities. Our credit derivative portfolio was in a net liability position of $3 million as of September 30, 2022, and $11 million as of December 31, 2021. Our credit derivative portfolio consists of traded credit default swap indices and risk participation agreements. Additional descriptions of our credit derivatives are provided in Note 8 ("Derivatives and Hedging Activities") beginning on page 141 of our 2021 Form 10-K under the heading "Credit Derivatives."

The following table provides information on the types of credit derivatives sold by us and held on the balance sheet at September 30, 2022, and December 31, 2021. The notional amount represents the amount that the seller could be required to pay. The payment/performance risk shown in the table represents a weighted average of the default probabilities for all reference entities in the respective portfolios. These default probabilities are implied from observed credit indices in the credit default swap market, which are mapped to reference entities based on Key's internal risk rating.

	September 30, 2022			December 31, 2021		
Dollars in millions	Notional Amount	Average Term (Years)	Payment / Performance Risk	Notional Amount	Average Term (Years)	Payment / Performance Risk
Other [(a)]	$ —	4.1	5.54 %	$ 149	13.86	3.15 %
Total credit derivatives sold	$ —	—	—	$ 149	—	—

(a) Other Notional Amount is less than $1 million as of 9/30/2022.

Credit Risk Contingent Features

We have entered into certain derivative contracts that require us to post collateral to the counterparties when these contracts are in a net liability position. The amount of collateral to be posted is based on the amount of the net liability and thresholds generally related to our long-term senior unsecured credit ratings with Moody's and S&P. Collateral requirements also are based on minimum transfer amounts, which are specific to each Credit Support Annex (a component of the ISDA Master Agreement) that we have signed with the counterparties. In a limited number of instances, counterparties have the right to terminate their ISDA Master Agreements with us if our ratings fall below a certain level, usually investment-grade level (i.e., "Baa3" for Moody's and "BBB-" for S&P). At September 30, 2022, KeyBank's rating was "A3" with Moody's and "A-" with S&P, and KeyCorp's rating was "Baa1" with Moody's and "BBB+" with S&P. As of September 30, 2022, the aggregate fair value of all derivative contracts with credit risk contingent features (i.e., those containing collateral posting or termination provisions based on our ratings) held by KeyBank that were in a net liability position totaled $1.1 billion, which was comprised of $315 million in derivative assets and $1.4 billion in derivative liabilities. We had $1.1 billion in cash and securities collateral posted to cover those positions as of September 30, 2022. There were no derivative contracts with credit risk contingent features held by KeyCorp at September 30, 2022.

The following table summarizes the additional cash and securities collateral that KeyBank would have been required to deliver under the ISDA Master Agreements had the credit risk contingent features been triggered for the derivative contracts in a net liability position as of September 30, 2022, and December 31, 2021. The additional collateral amounts were calculated based on scenarios under which KeyBank's ratings are downgraded one, two, or three ratings as of September 30, 2022, and December 31, 2021, and take into account all collateral already posted. A similar calculation was performed for KeyCorp, and no additional collateral would have been required as of September 30, 2022, and December 31, 2021. For more information about the credit ratings for KeyBank and KeyCorp, see the discussion under the heading "Factors affecting liquidity" in the section entitled "Liquidity risk management" in Item 2 of this report.

Dollars in millions	September 30, 2022		December 31, 2021	
	Moody's	S&P	Moody's	S&P
KeyBank's long-term senior unsecured credit ratings	A3	A-	A3	A-
One rating downgrade	$ 1	$ 1	$ 3	$ 3
Two rating downgrades	1	1	3	3
Three rating downgrades	1	1	3	3

KeyBank's long-term senior unsecured credit rating was three ratings above noninvestment grade at Moody's and S&P as of September 30, 2022, and December 31, 2021. If KeyBank's ratings had been downgraded below investment grade as of September 30, 2022, or December 31, 2021, payments of $2 million and $4 million, respectively, would have been required to either terminate the contracts or post additional collateral for those contracts in a net liability position, taking into account all collateral already posted. If KeyCorp's ratings had been downgraded below investment grade as of September 30, 2022, or December 31, 2021, no payments would have been required to either terminate the contracts or post additional collateral for those contracts in a net liability position, taking into account all collateral already posted.

8. Mortgage Servicing Assets

We originate and periodically sell commercial and residential mortgage loans but continue to service those loans for the buyers. We also may purchase the right to service commercial mortgage loans from other lenders. We record a servicing asset if we purchase or retain the right to service loans in exchange for servicing fees that exceed the going market servicing rate and are considered more than adequate compensation for servicing. Additional information pertaining to the accounting for mortgage and other servicing assets is included in Note 1 ("Summary of Significant Accounting Policies") under the heading "Servicing Assets" beginning on page 114 of our 2021 Form 10-K.

Commercial

Changes in the carrying amount of commercial mortgage servicing assets are summarized as follows:

Dollars in millions	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Balance at beginning of period	$ 647	$ 600	$ 634	$ 578
Servicing retained from loan sales	26	31	78	88
Purchases	9	8	32	22
Amortization	(31)	(30)	(93)	(89)
Temporary (impairments) recoveries	—	—	—	10
Balance at end of period	$ 651	$ 609	$ 651	$ 609
Fair value at end of period	$ 942	$ 735	$ 942	$ 735

The fair value of commercial mortgage servicing assets is determined by calculating the present value of future cash flows associated with servicing the loans. This calculation uses a number of assumptions that are based on current market conditions. The range and weighted average of the significant unobservable inputs used to determine the fair value of our commercial mortgage servicing assets at September 30, 2022, and September 30, 2021, along with the valuation techniques, are shown in the following table:

Dollars in millions		September 30, 2022			September 30, 2021		
Valuation Technique	Significant Unobservable Input	Range		Weighted Average	Range		Weighted Average
Discounted cash flow	Expected defaults	0.98 %	2.00 %	1.08 %	1.00 %	2.00 %	1.15 %
	Residual cash flows discount rate	8.43 %	10.17 %	9.52 %	7.64 %	10.49 %	9.31 %
	Escrow earn rate	3.69 %	3.97 %	3.87 %	1.04 %	1.37 %	1.04 %
	Loan assumption rate	— %	1.50 %	1.19 %	— %	1.71 %	1.40 %

If these economic assumptions change or prove incorrect, the fair value of commercial mortgage servicing assets may also change. Expected credit losses, escrow earning rates, and discount rates are critical to the valuation of commercial mortgage servicing assets. Estimates of these assumptions are based on how a market participant would view the respective rates, and reflect historical data associated with the commercial mortgage loans, industry trends, and other considerations. Actual rates may differ from those estimated due to changes in a variety of economic factors. A decrease in the value assigned to the escrow earning rates would cause a decrease in the fair value of our commercial mortgage servicing assets. An increase in the assumed default rates of commercial mortgage loans or an increase in the assigned discount rates would cause a decrease in the fair value of our commercial mortgage servicing assets. Prepayment activity on commercial serviced loans does not significantly affect the valuation of our commercial mortgage servicing assets. Unlike residential mortgages, commercial mortgages experience significantly lower prepayments due to certain contractual restrictions affecting the borrower's ability to prepay the mortgage.

The amortization of commercial servicing assets is determined in proportion to, and over the period of, the estimated net servicing income. The amortization of commercial servicing assets for each period, as shown in the table at the beginning of this note, is recorded as a reduction to contractual fee income. The contractual fee income from servicing commercial mortgage loans totaled $219 million for the nine-month period ended September 30, 2022, and $193 million for the nine-month period ended September 30, 2021. This fee income was offset by $93 million of amortization for the nine-month period ended September 30, 2022, and $89 million for the nine-month period ended September 30, 2021. Both the contractual fee income and the amortization are recorded, net, in "commercial mortgage servicing fees" on the income statement.

Residential

Changes in the carrying amount of residential mortgage servicing assets are summarized as follows:

	Three months ended September 30,		Nine months ended September 30,	
Dollars in millions	**2022**	**2021**	**2022**	**2021**
Balance at beginning of period	**$ 104**	$ 77	**$ 93**	$ 58
Servicing retained from loan sales	**4**	9	**21**	32
Purchases	**—**	—	**—**	—
Amortization	**(3)**	(4)	**(10)**	(14)
Temporary (impairments) recoveries	**—**	**3**	**1**	9
Balance at end of period	**$ 105**	$ 85	**$ 105**	$ 85
Fair value at end of period	**$ 127**	$ 89	**$ 127**	$ 89

The fair value of mortgage servicing assets is determined by calculating the present value of future cash flows associated with servicing the loans. This calculation uses a number of assumptions that are based on current market conditions. The range and weighted-average of the significant unobservable inputs used to fair value our mortgage servicing assets at September 30, 2022, and September 30, 2021, along with the valuation techniques, are shown in the following table:

		September 30, 2022			September 30, 2021		
Valuation Technique	**Significant Unobservable Input**	**Range**		**Weighted Average**	**Range**		**Weighted Average**
Discounted cash flow	Prepayment speed	**7.05 %**	**44.74 %**	**8.09 %**	8.03 %	48.88 %	11.67 %
	Discount rate	**7.50 %**	**8.53 %**	**7.53 %**	7.50 %	8.57 %	7.54 %
	Servicing cost	**$ 62.00**	**$ 4,375**	**$ 66.59**	$ 62.00	$ 4,375	$ 68.15

If these economic assumptions change or prove incorrect, the fair value of residential mortgage servicing assets may also change. Prepayment speed, discount rates, and servicing cost are critical to the valuation of residential mortgage servicing assets. Estimates of these assumptions are based on how a market participant would view the respective rates and reflect historical data associated with the residential mortgage loans, industry trends, and other considerations. Actual rates may differ from those estimated due to changes in a variety of economic factors. An increase in the prepayment speed would cause a decrease in the fair value of our residential mortgage servicing assets. An increase in the assigned discount rates and servicing cost assumptions would cause a decrease in the fair value of our residential mortgage servicing assets.

The amortization of servicing assets for September 30, 2022, as shown in the table above, is recorded as a reduction to contractual fee income. The contractual fee income from servicing residential mortgage loans totaled $27 million for the nine-month period ended September 30, 2022, and $30 million for the nine-month period ended

September 30, 2021. This fee income was offset by $10 million of amortization for the nine-month period ended September 30, 2022, and $14 million for the nine-month period ended September 30, 2021. Both the contractual fee income and the amortization are recorded, net, in “consumer mortgage income” on the income statement.

9. Leases

As a lessee, we enter into leases of land, buildings, and equipment. Our real estate leases primarily relate to bank branches and office space. The leases of equipment principally relate to technology assets for data processing and data storage. As a lessor, we primarily provide financing through our equipment leasing business. For more information on our leasing activity, see Note 10 (“Leases”) beginning on page 149 of our 2021 Form 10-K.

Lessor Equipment Leasing

Leases may have fixed or floating rate terms. Variable payments are based on an index or other specified rate and are included in rental payments. Certain leases contain an option to extend the lease term or the option to terminate at the discretion of the lessee. Under certain conditions, lease agreements may also contain the option for a lessee to purchase the underlying asset.

Interest income from sales-type and direct financing leases is recognized in "interest income — loans" on the income statement. Income related to operating leases is recognized in “operating lease income and other leasing gains” on the income statement. The components of equipment leasing income are summarized in the table below:

	Three months ended September 30,		Nine months ended September 30,	
Dollars in millions	**2022**	**2021**	**2022**	**2021**
Sales-type and direct financing leases				
Interest income on lease receivable	**$ 16**	$ 13	**$ 47**	$ 59
Interest income related to accretion of unguaranteed residual asset	**3**	9	**11**	12
Total sales-type and direct financing lease income	**$ 19**	$ 22	**$ 58**	$ 71
Operating leases				
Operating lease income related to lease payments	**$ 25**	$ 31	**$ 81**	$ 95
Other operating leasing gains	**(6)**	6	**(2)**	16
Total operating lease income and other leasing gains	**19**	37	**79**	111
Total lease income	**$ 38**	$ 59	**$ 137**	$ 182

10. Goodwill

Our annual goodwill impairment testing is performed as of October 1 each year, or more frequently as events occur or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. A quantitative or qualitative testing approach may be used. Additional information pertaining to our accounting policy for goodwill and other intangible assets is summarized in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Goodwill and Other Intangible Assets” beginning on page 114 of our 2021 Form 10-K.

The fair values of each reporting unit are estimated using a combination of market and income approaches. In our latest quantitative test as of October 1, 2021, the income approach utilized discounted cash flow projections for each reporting unit. The market approach consisted primarily of public company metrics but also utilized recent transactions in the financial services industry. The carrying amounts of Key’s reporting units represent the combination of regulatory and economic equity for goodwill impairment testing and management reporting purposes.

Changes in the carrying amount of goodwill by reporting segment are presented in the following table:

Dollars in millions	Consumer Bank	Commercial Bank	Total
BALANCE AT SEPTEMBER 30, 2021	$ 1,761	$ 912	$ 2,673
XUP acquisition	—	20	20
BALANCE AT DECEMBER 31, 2021	$ 1,761	$ 932	$ 2,693
XUP acquisition measurement period adjustment	—	1	1
GradFin acquisition	58	—	58
BALANCE AT SEPTEMBER 30, 2022	**$ 1,819**	**$ 933**	**$ 2,752**

11. Variable Interest Entities

Our significant VIEs are summarized below. Additional information pertaining to the criteria used in determining if an entity is a VIE is included in Note 13 (“Variable Interest Entities “) beginning on page 153 of our 2021 Form 10-K.

LIHTC investments. We had $1.8 billion and $1.6 billion of investments in LIHTC operating partnerships at September 30, 2022, and December 31, 2021, respectively. These investments are recorded in “accrued income and other assets” on our balance sheet. We do not have any loss reserves recorded related to these investments because we believe the likelihood of any loss to be remote. For all legally binding, unfunded equity commitments, we increase our recognized investment and recognize a liability. As of September 30, 2022, and December 31, 2021, we had liabilities of $845 million and $675 million, respectively, related to investments in qualified affordable housing projects, which are recorded in “accrued expenses and other liabilities” on our balance sheet. We continue to invest in these LIHTC operating partnerships.

The assets and liabilities presented in the table below convey the size of KCDC’s direct and indirect investments at September 30, 2022, and December 31, 2021. As these investments represent unconsolidated VIEs, the assets and liabilities of the investments themselves are not recorded on our balance sheet. Additional information pertaining to our LIHTC investments is included in Note 13 (“Variable Interest Entities”) beginning on page 153 of our 2021 Form 10-K.

	Unconsolidated VIEs		
Dollars in millions	Total Assets	Total Liabilities	Maximum Exposure to Loss
September 30, 2022			
LIHTC investments	**$ 7,344**	**$ 2,469**	**$ 2,242**
December 31, 2021			
LIHTC investments	$ 7,839	$ 3,252	$ 1,985

We amortize our LIHTC investments over the period that we expect to receive the tax benefits. During the first nine months ended September 30, 2022, we recognized $142 million of amortization and $138 million of tax credits associated with these investments within “income taxes” on our income statement. During the first nine months ended September 30, 2021, we recognized $147 million of amortization and $139 million of tax credits associated with these investments within “income taxes” on our income statement.

Principal investments. Our maximum exposure to loss associated with indirect principal investments consists of the investments’ fair value plus any unfunded equity commitments. The fair value of our indirect principal investments totaled $36 million and $45 million at September 30, 2022, and December 31, 2021, respectively. These investments are recorded in “other investments” on our balance sheet. The table below reflects the size of the private equity funds in which we were invested as well as our maximum exposure to loss in connection with these investments at September 30, 2022, and December 31, 2021.

	Unconsolidated VIEs		
Dollars in millions	Total Assets	Total Liabilities	Maximum Exposure to Loss
September 30, 2022			
Indirect investments	**$ 6,968**	**$ 92**	**$ 46**
December 31, 2021			
Indirect investments	$ 8,437	$ 178	$ 57

Through our principal investing entities, we have formed and funded operating entities that provide management and other related services to our investment company funds, which directly invest in portfolio companies. These

entities had no assets at September 30, 2022, and December 31, 2021, that can be used to settle the entities' obligations. The entities had no liabilities at September 30, 2022, and December 31, 2021, and other equity investors have no recourse to our general credit.

Additional information on our indirect and direct principal investments is provided in Note 6 ("Fair Value Measurements") beginning on page 130 and in Note 13 ("Variable Interest Entities ") beginning on page 153 of our 2021 Form 10-K.

Other unconsolidated VIEs. We are involved with other various entities in the normal course of business which we have determined to be VIEs. We have determined that we are not the primary beneficiary of these VIEs because we do not have the power to direct the activities that most significantly impact their economic performance or hold a variable interest that could potentially be significant. The table below shows our assets and liabilities associated with these unconsolidated VIEs at September 30, 2022, and December 31, 2021. These assets are recorded in "accrued income and other assets," "other investments," "securities available for sale," "held-to-maturity securities," and "loans, net of unearned income" on our balance sheet. Of the total balance as of September 30, 2022, $1.6 billion related to the purchase of senior notes from a securitization collateralized by sold indirect auto loans. Additional information pertaining to our other unconsolidated VIEs is included in Note 13 ("Variable Interest Entities") under the heading "Other unconsolidated VIEs" on page 155 of our 2021 Form 10-K.

	Other unconsolidated VIEs	
Dollars in millions	**Total Assets**	**Total Liabilities**
September 30, 2022		
Other unconsolidated VIEs	**$ 2,002**	**$ 1**
December 31, 2021		
Other unconsolidated VIEs	$ 2,827	$ 1

12. Income Taxes

Income Tax Provision

In accordance with the applicable accounting guidance, the principal method established for computing the provision for income taxes in interim periods requires us to make our best estimate of the effective tax rate expected to be applicable for the full year. This estimated effective tax rate is then applied to interim consolidated pre-tax operating income to determine the interim provision for income taxes.

The effective tax rate, which is the provision for income taxes as a percentage of income before income taxes, was 18.7% for the third quarter of 2022 and 20.4% for the third quarter of 2021. The effective tax rates are less than our combined federal and state statutory tax rate of 23.7%, primarily due to income from investments in tax-advantaged assets such as corporate-owned life insurance and credits associated with renewable energy and low-income housing investments.

Deferred Taxes

At September 30, 2022, we had a net deferred tax asset of $1.9 billion, compared to a net deferred tax asset of $189 million at December 31, 2021, which are included in "accrued income and other assets" on the balance sheet. The increase in the deferred tax asset is primarily related to market fluctuations in the investment security portfolio accounted for in other comprehensive income.

To determine the amount of deferred tax assets that are more likely than not to be realized, and therefore recorded, we conduct a quarterly assessment of all available evidence. This evidence includes, but is not limited to, taxable income in prior periods, projected future taxable income, and projected future reversals of deferred tax items. These assessments involve a degree of subjectivity and may undergo change. Based on these criteria, we had a valuation allowance of $11 million at September 30, 2022, and $12 million at December 31, 2021. The valuation allowance is associated with federal and state capital loss carryforwards.

Unrecognized Tax Benefits

At September 30, 2022, Key's unrecognized tax benefits were $46 million. As permitted under the applicable accounting guidance for income taxes, it is our policy to recognize interest and penalties related to unrecognized tax benefits in "income tax expense."

Pre-1988 Bank Reserves Acquired in a Business Combination

Retained earnings of KeyBank included approximately $92 million of allocated bad debt deductions for which no income taxes have been recorded. Under current federal law, these reserves are subject to recapture into taxable income if KeyBank, or any successor, fails to maintain its bank status under the Internal Revenue Code or makes non-dividend distributions or distributions greater than its accumulated earnings and profits. No deferred tax liability has been established as these events are not expected to occur in the foreseeable future.

13. Acquisitions and Discontinued Operations

Acquisitions

XUP Payments. On November 19, 2021, KeyBank acquired XUP Payments, a B2B focused digital platform. The acquisition was accounted for as a business combination. As a result of the acquisition, we recognized goodwill of $20.6 million and no separately identified intangible assets were recorded. Other acquired assets and liabilities of XUP were immaterial. The valuation was final as of March 31, 2022.

GradFin. On May 2, 2022, KeyBank acquired GradFin, a public service loan forgiveness counseling provider. The acquisition was accounted for as a business combination. Consideration paid totaled $72 million consisting of $62 million in cash and $10 million in contingent consideration. As a result of the acquisition, we recognized goodwill of $58 million and other intangible assets of $12 million, with remaining assets acquired consisting primarily of cash. Other acquired assets and liabilities of GradFin were immaterial. The valuation was final as of September 30, 2022.

Discontinued operations

Discontinued operations primarily includes our government-guaranteed and private education lending business. At September 30, 2022, and December 31, 2021, approximately $467 million and $567 million, respectively, of education loans are included in discontinued assets on the Consolidated Balance Sheets. Net interest income after provision for credit losses for this business is not material and is included in income (loss) from discontinued operations, net of taxes on the Consolidated Statements of Income.

14. Securities Financing Activities

Additional information regarding our securities financing activities, including risk management activities, is provided in Note 1 ("Summary of Significant Accounting Policies") beginning on page 107 our 2021 Form 10-K and Note 16 ("Securities Financing Activities") beginning on page 158 of our 2021 Form 10-K .

The following table summarizes our securities financing agreements at September 30, 2022, and December 31, 2021:

	September 30, 2022				December 31, 2021			
Dollars in millions	Gross Amount Presented in Balance Sheet	Netting Adjustments [a]	Collateral [b]	Net Amounts	Gross Amount Presented in Balance Sheet	Netting Adjustments [a]	Collateral [b]	Net Amounts
Offsetting of financial assets:								
Reverse repurchase agreements	**$ 52**	**$ (52)**	**$ —**	**$ —**	$ 11	$ (6)	$ (5)	$ —
Securities borrowed	**500**	**—**	**(500)**	**—**	500	—	(500)	—
Total	**$ 552**	**$ (52)**	**$ (500)**	**$ —**	$ 511	$ (6)	$ (505)	$ —
Offsetting of financial liabilities:								
Repurchase agreements [c]	**$ 122**	**$ (52)**	**$ (70)**	**$ —**	$ 173	$ (6)	$ (167)	$ —
Total	**$ 122**	**$ (52)**	**$ (70)**	**$ —**	$ 173	$ (6)	$ (167)	$ —

(a) Netting adjustments take into account the impact of master netting agreements that allow us to settle with a single counterparty on a net basis.
(b) These adjustments take into account the impact of bilateral collateral agreements that allow us to offset the net positions with the related collateral. The application of collateral cannot reduce the net position below zero. Therefore, excess collateral, if any, is not reflected above.
(c) Repurchase agreements are collateralized by mortgaged-backed agency securities and are contracted on an overnight or continuous basis.

As of September 30, 2022, the carrying amount of assets pledged as collateral against repurchase agreements totaled $128 million. Assets pledged as collateral are reported in “securities available for sale” and “held-to-maturity securities” on the Consolidated Balance Sheets. At September 30, 2022, the liabilities associated with collateral pledged were solely comprised of customer sweep financing activity and had a carrying value of $70 million. The collateral pledged under customer sweep repurchase agreements is posted to a third-party custodian and cannot be sold or repledged by the secured party. The risk related to a decline in the market value of collateral pledged is minimal given the collateral's high credit quality and the overnight duration of the repurchase agreements.

15. Employee Benefits

Pension Plans

The components of net pension cost (benefit) for all funded and unfunded plans are recorded in Other expense and are summarized in the following table. For more information on our Pension Plans and Other Postretirement Benefit Plans, see Note 18 (“Employee Benefits”) beginning on page 161 of our 2021 Form 10-K.

	Three months ended September 30,		Nine months ended September 30,	
Dollars in millions	**2022**	**2021**	**2022**	**2021**
Interest cost on PBO	**$ 7**	$ 6	**$ 20**	$ 18
Expected return on plan assets	**(7)**	(7)	**(20)**	(21)
Amortization of losses	**4**	5	**11**	14
Settlement loss	**—**	7	**—**	7
Net pension cost	**$ 4**	$ 11	**$ 11**	$ 18

16. Trust Preferred Securities Issued by Unconsolidated Subsidiaries

We own the outstanding common stock of business trusts formed by us that issued corporation-obligated, mandatorily redeemable, trust preferred securities. The trusts used the proceeds from the issuance of their trust preferred securities and common stock to buy debentures issued by KeyCorp. These debentures are the trusts’ only assets; the interest payments from the debentures finance the distributions paid on the mandatorily redeemable trust preferred securities. The outstanding common stock of these business trusts is recorded in Other investments on the Consolidated Balance Sheets. We unconditionally guarantee the following payments or distributions on behalf of the trusts:

- required distributions on the trust preferred securities;
- the redemption price when a capital security is redeemed; and
- the amounts due if a trust is liquidated or terminated.

The Regulatory Capital Rules, discussed in “Supervision and regulation” in Item 2 of this report, require us to treat our mandatorily redeemable trust preferred securities as Tier 2 capital.

The trust preferred securities, common stock, and related debentures are summarized as follows:

Dollars in millions	Trust Preferred Securities, Net of Discount [a]	Common Stock	Principal Amount of Debentures, Net of Discount [b]	Interest Rate of Trust Preferred Securities and Debentures [c]	Maturity of Trust Preferred Securities and Debentures
September 30, 2022					
KeyCorp Capital I	**$ 156**	**$ 6**	**$ 162**	**3.017 %**	**2028**
KeyCorp Capital II	**95**	**4**	**99**	**6.875**	**2029**
KeyCorp Capital III	**107**	**4**	**111**	**7.750**	**2029**
HNC Statutory Trust III	**20**	**1**	**21**	**4.380**	**2035**
Willow Grove Statutory Trust I	**20**	**1**	**21**	**4.062**	**2036**
HNC Statutory Trust IV	**18**	**1**	**19**	**4.603**	**2037**
Westbank Capital Trust II	**8**	**—**	**8**	**5.717**	**2034**
Westbank Capital Trust III	**8**	**—**	**8**	**5.717**	**2034**
Total	**$ 432**	**$ 17**	**$ 449**	**5.316 %**	—
December 31, 2021	$ 466	$ 17	$ 483	4.271 %	—

(a) The trust preferred securities must be redeemed when the related debentures mature, or earlier if provided in the governing indenture. Each issue of trust preferred securities carries an interest rate identical to that of the related debenture. Certain trust preferred securities include basis adjustments related to fair value hedges totaling $17 million at September 30, 2022, and $52 million at December 31, 2021. See Note 7 (“Derivatives and Hedging Activities”) for an explanation of fair value hedges.

(b) We have the right to redeem these debentures. If the debentures purchased by KeyCorp Capital I, HNC Statutory Trust III, Willow Grove Statutory Trust I, HNC Statutory Trust IV, Westbank Capital Trust II, or Westbank Capital Trust III are redeemed before they mature, the redemption price will be the principal amount, plus any accrued but unpaid interest. If the debentures purchased by KeyCorp Capital II or KeyCorp Capital III are redeemed before they mature, the redemption price will be the greater of: (i) the principal amount, plus any accrued but unpaid interest, or (ii) the sum of the present values of principal and interest payments discounted at the Treasury Rate (as defined in the applicable indenture), plus 20 basis points for KeyCorp Capital II or 25 basis points for KeyCorp Capital III, or 50 basis points in the case of redemption upon either a tax or a capital treatment event for either KeyCorp Capital II or KeyCorp Capital III, plus any accrued but unpaid interest. The principal amount of certain debentures includes basis adjustments related to fair value hedges totaling $17 million at September 30, 2022, and $52 million at December 31, 2021. See Note 7 (“Derivatives and Hedging Activities”) for an explanation of fair value hedges. The principal amount of debentures, net of discounts, is included in “long-term debt” on the balance sheet.

(c) The interest rates for the trust preferred securities issued by KeyCorp Capital II and KeyCorp Capital III are fixed. The trust preferred securities issued by KeyCorp Capital I have a floating interest rate, equal to three-month LIBOR plus 74 basis points, that reprices quarterly. The trust preferred securities issued by HNC Statutory Trust III have a floating interest rate, equal to three-month LIBOR plus 140 basis points, that reprices quarterly. The trust preferred securities issued by Willow Grove Statutory Trust I have a floating interest rate, equal to three-month LIBOR plus 131 basis points, that reprices quarterly. The trust preferred securities issued by HNC Statutory Trust IV have a floating interest rate, equal to three-month LIBOR plus 128 basis points, that reprices quarterly. The trust preferred securities issued by Westbank Capital Trust II and Westbank Capital Trust III each have a floating interest rate, equal to three-month LIBOR plus 219 basis points, that reprices quarterly. The total interest rates are weighted-average rates.

17. Contingent Liabilities and Guarantees

Legal Proceedings

Litigation. From time to time, in the ordinary course of business, we and our subsidiaries are subject to various litigation, investigations, and administrative proceedings. Private, civil litigation may range from individual actions involving a single plaintiff to putative class action lawsuits with potentially thousands of class members. Investigations may involve both formal and informal proceedings, by both government agencies and self-regulatory bodies. These matters may involve claims for substantial monetary relief. At times, these matters may present novel claims or legal theories. Due to the complex nature of these various other matters, it may be years before some matters are resolved. While it is impossible to ascertain the ultimate resolution or range of financial liability, based on information presently known to us, we do not believe there is any matter to which we are a party, or involving any of our properties that, individually or in the aggregate, would reasonably be expected to have a material adverse effect on our financial condition. We continually monitor and reassess the potential materiality of these litigation matters. We note, however, that in light of the inherent uncertainty in legal proceedings there can be no assurance that the ultimate resolution will not exceed established reserves. As a result, the outcome of a particular matter, or a combination of matters, may be material to our results of operations for a particular period, depending upon the size of the loss or our income for that particular period.

Guarantees

We are a guarantor in various agreements with third parties. The following table shows the types of guarantees that we had outstanding at September 30, 2022. Information pertaining to the basis for determining the liabilities recorded in connection with these guarantees is included in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Contingencies and Guarantees” beginning on page 115 of our 2021 Form 10-K.

September 30, 2022 *Dollars in millions*	Maximum Potential Undiscounted Future Payments	Liability Recorded
Financial guarantees:		
Standby letters of credit	$ 4,473	$ 84
Recourse agreement with FNMA	6,650	26
Residential mortgage reserve	3,298	14
Written put options [a]	3,883	251
Total	$ 18,304	$ 375

(a) The maximum potential undiscounted future payments represent notional amounts of derivatives qualifying as guarantees.

We determine the payment/performance risk associated with each type of guarantee described below based on the probability that we could be required to make the maximum potential undiscounted future payments shown in the preceding table. We use a scale of low (0% to 30% probability of payment), moderate (greater than 30% to 70% probability of payment), or high (greater than 70% probability of payment) to assess the payment/performance risk, and have determined that the payment/performance risk associated with each type of guarantee outstanding at September 30, 2022, is low. Information pertaining to the nature of each of the guarantees listed below is included in Note 22 (“Commitments, Contingent Liabilities, and Guarantees”) under the heading “Guarantees” beginning on page 172 of our 2021 Form 10-K.

Standby letters of credit. At September 30, 2022, our standby letters of credit had a remaining weighted-average life of 1.7 years, with remaining actual lives ranging from less than 1 year to as many as 12.2 years.

Recourse agreement with FNMA. At September 30, 2022, the outstanding commercial mortgage loans in this program had a weighted-average remaining term of 7.5 years, and the unpaid principal balance outstanding of loans sold by us as a participant was $21.7 billion. The maximum potential amount of undiscounted future payments that we could be required to make under this program, as shown in the preceding table, is equal to approximately 30.7% of the principal balance of loans outstanding at September 30, 2022. FNMA delegates responsibility for originating, underwriting, and servicing mortgages, and we assume a limited portion of the risk of loss during the remaining term on each commercial mortgage loan that we sell to FNMA. We maintain a reserve for such potential losses in an amount that we believe approximates the fair value of our liability in addition to the expected credit loss for the guarantee as described in Note 4 (“Asset Quality“).

Residential Mortgage Banking. At September 30, 2022, the unpaid principal balance outstanding of loans sold by us in this program was $11.0 billion. The maximum potential amount of undiscounted future payments that we could be required to make under this program, as shown in the preceding table, is equal to approximately 30% of the principal balance of loans outstanding at September 30, 2022.

Our liability for estimated repurchase obligations on loans sold, which is included in “accrued expenses and other liabilities” on the balance sheet, was $14 million at September 30, 2022. For more information on our residential mortgages, see Note 8 (“Mortgage Servicing Assets“).

Written put options. At September 30, 2022, our written put options had an average life of 1.8 years. These written put options are accounted for as derivatives at fair value, as further discussed in Note 7 (“Derivatives and Hedging Activities”).

Written put options where the counterparty is a broker-dealer or bank are accounted for as derivatives at fair value but are not considered guarantees since these counterparties typically do not hold the underlying instruments. In addition, we are a purchaser and seller of credit derivatives, which are further discussed in Note 7 (“Derivatives and Hedging Activities”).

Other Off-Balance Sheet Risk

Other off-balance sheet risk stems from financial instruments that do not meet the definition of a guarantee as specified in the applicable accounting guidance, and from other relationships. Additional information pertaining to types of other off-balance sheet risk is included in Note 22 (“Commitments, Contingent Liabilities, and Guarantees”) under the heading “Other Off-Balance Sheet Risk” on page 173 of our 2021 Form 10-K.

18. Accumulated Other Comprehensive Income

Our changes in AOCI for the three and nine months ended September 30, 2022, and September 30, 2021, are as follows:

Dollars in millions	Unrealized gains (losses) on securities available for sale	Unrealized gains (losses) on derivative financial instruments	Net pension and postretirement benefit costs	Total
Balance at December 31, 2021	$ (403)	$ 88	$ (271)	$ (586)
Other comprehensive income before reclassification, net of income taxes	**(4,380)**	**(1,281)**	**(1)**	**(5,662)**
Amounts reclassified from AOCI, net of income taxes [(a)]	**—**	**(17)**	**8**	**(9)**
Net current-period other comprehensive income, net of income taxes	**(4,380)**	**(1,298)**	**7**	**(5,671)**
Balance at September 30, 2022	**$ (4,783)**	**$ (1,210)**	**$ (264)**	**$ (6,257)**
Balance at June 30, 2022	$ (3,167)	$ (733)	$ (266)	$ (4,166)
Other comprehensive income before reclassification, net of income taxes	**(1,616)**	**(527)**	**(1)**	**(2,144)**
Amounts reclassified from AOCI, net of income taxes [(a)]	**—**	**50**	**3**	**53**
Net current-period other comprehensive income, net of income taxes	**(1,616)**	**(477)**	**2**	**(2,091)**
Balance at September 30, 2022	**$ (4,783)**	**$ (1,210)**	**$ (264)**	**$ (6,257)**
Balance at December 31, 2020	$ 567	$ 476	$ (305)	$ 738
Other comprehensive income before reclassification, net of income taxes	(617)	11	(2)	(608)
Amounts reclassified from AOCI, net of income taxes [(a)]	—	(191)	16	(175)
Net current-period other comprehensive income, net of income taxes	(617)	(180)	14	(783)
Balance at September 30, 2021	$ (50)	$ 296	$ (291)	$ (45)
Balance at June 30, 2021	$ 124	$ 325	$ (299)	$ 150
Other comprehensive income before reclassification, net of income taxes	(174)	30	(1)	(145)
Amounts reclassified from AOCI, net of income taxes [(a)]	—	(59)	9	(50)
Net current-period other comprehensive income, net of income taxes	(174)	(29)	8	(195)
Balance at September 30, 2021	$ (50)	$ 296	$ (291)	$ (45)

(a) See table below for details about these reclassifications.

Our reclassifications out of AOCI for the three and nine months ended September 30, 2022, and September 30, 2021, are as follows:

Dollars in millions	Three months ended September 30, 2022	2021	Affected Line Item in the Consolidated Statement of Income
Unrealized gains (losses) on derivative financial instruments			
Interest rate	**$ (66)**	$ 79	Interest income — Loans
Interest rate	**(1)**	(1)	Interest expense — Long-term debt
Interest rate	**2**	(1)	Investment banking and debt placement fees
	(65)	77	Income (loss) from continuing operations before income taxes
	(15)	18	Income taxes
	$ (50)	$ 59	Income (loss) from continuing operations
Net pension and postretirement benefit costs			
Amortization of losses	**$ (4)**	$ (5)	Other expense
Settlement loss	**—**	(7)	Other expense
	(4)	(12)	Income (loss) from continuing operations before income taxes
	(1)	(3)	Income taxes
	$ (3)	$ (9)	Income (loss) from continuing operations

Dollars in millions	Nine months ended September 30, 2022	2021	Affected Line Item in the Statement Where Net Income is Presented
Unrealized gains (losses) on derivative financial instruments			
Interest rate	**$ 16**	$ 253	Interest income — Loans
Interest rate	**(3)**	(3)	Interest expense — Long-term debt
Interest rate	**9**	—	Investment banking and debt placement fees
	22	250	Income (loss) from continuing operations before income taxes
	5	59	Income taxes
	$ 17	$ 191	Income (loss) from continuing operations
Net pension and postretirement benefit costs			
Amortization of losses	**$ (11)**	$ (14)	Other expense
Settlement loss	**—**	(7)	Other expense
Amortization of unrecognized prior service credit	**1**	—	Other expense
	(10)	(21)	Income (loss) from continuing operations before income taxes
	(2)	(5)	Income taxes
	$ (8)	$ (16)	Income (loss) from continuing operations

19. Shareholders' Equity

Comprehensive Capital Plan

In July 2021, the Board of Directors authorized the repurchase of up to $1.5 billion of our Common Shares, effective for the third quarter of 2021 through the third quarter of 2022. In September 2022, the Board of Directors approved the extension of the previous authorization through the third quarter of 2023. During the third quarter of 2022, activity under this authorization was limited to repurchases related to employee equity compensation programs.

Consistent with our capital plan, the Board declared a quarterly dividend of $.195 per Common Share for the third quarter of 2022.

Preferred Stock

The following table summarizes our preferred stock at September 30, 2022.

Preferred stock series	Amount outstanding (in millions)	Shares authorized and outstanding	Par value	Liquidation preference	Ownership interest per depositary share	Liquidation preference per depositary share	Third quarter 2022 dividends paid per depositary share
5.000% Fixed-to-Floating Rate Perpetual Noncumulative Series D	$ 525	21,000	$ 1	$ 25,000	1/25th	$ 1,000	$ 12.50
6.125% Fixed-to-Floating Rate Perpetual Noncumulative Series E	500	500,000	1	1,000	1/40th	25	.382813
5.650% Fixed Rate Perpetual Noncumulative Series F	425	425,000	1	1,000	1/40th	25	.353125
5.625% Fixed Rate Perpetual Non-Cumulative Series G	450	450,000	1	1,000	1/40th	25	.351563
6.200% Fixed Rate Reset Perpetual Non-Cumulative Series H	600	600,000	1	1,000	1/40th	25	—

20. Business Segment Reporting

The following is description of the segments and their primary businesses at September 30, 2022.

Consumer Bank

The Consumer Bank serves individuals and small businesses throughout our 15-state branch footprint as well as healthcare professionals nationally through our Laurel Road digital brand by offering a variety of deposit and investment products, personal finance and financial wellness services, lending, student loan refinancing, mortgage and home equity, credit card, treasury services, and business advisory services. In addition, wealth management and investment services are offered to assist non-profit and high-net-worth clients with their banking, trust, portfolio management, life insurance, charitable giving, and related needs.

Commercial Bank

The Commercial Bank consists of the Commercial and Institutional operating segments. The Commercial operating segment is a full-service, commercial banking platform that focuses primarily on serving the borrowing, cash management, and capital markets needs of middle market clients within Key's 15-state branch footprint. It is also a significant, national, commercial real estate lender and third-party servicer of commercial mortgage loans and special servicer of CMBS. The Institutional operating segment operates nationally in providing lending, equipment financing, and banking products and services to large corporate and institutional clients. The industry coverage and product teams have established expertise in the following sectors: Consumer, Energy, Healthcare, Industrial, Public Sector, Real Estate, and Technology. The operating segment includes the KBCM platform which provides a broad suite of capital markets products and services including syndicated finance, debt and equity capital markets, derivatives, foreign exchange, financial advisory, and public finance. Additionally, KBCM provides fixed income and equity sales and trading services to investor clients.

Other

Other includes various corporate treasury activities such as management of our investment securities portfolio, long-term debt, short-term liquidity and funding activities, and balance sheet risk management, our principal

investing unit, and various exit portfolios as well as reconciling items which primarily represents the unallocated portion of nonearning assets of corporate support functions. Charges related to the funding of these assets are part of net interest income and are allocated to the business segments through noninterest expense. Reconciling items also include intercompany eliminations and certain items that are not allocated to the business segments because they do not reflect their normal operations.

The development and application of the methodologies that we use to allocate items among our business segments is a dynamic process. Accordingly, financial results may be revised periodically to reflect enhanced alignment of expense base allocations drivers, changes in the risk profile of a particular business, or changes in our organizational structure.

The table below shows selected financial data for our business segments for the three- and nine-month periods ended September 30, 2022, and September 30, 2021. Capital is assigned to each business segment based on a combination of regulatory and economic equity.

Three months ended September 30,	**Consumer Bank**		**Commercial Bank**		**Other**		**Total Key**	
Dollars in millions	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
SUMMARY OF OPERATIONS								
Net interest income (TE)	**$ 632**	$ 582	**$ 495**	$ 407	**$ 76**	$ 36	**$ 1,203**	$ 1,025
Noninterest income	**259**	288	**394**	477	**30**	32	**683**	797
Total revenue (TE) [a]	**891**	870	**889**	884	**106**	68	**1,886**	1,822
Provision for credit losses	**37**	(38)	**74**	(69)	**(2)**	—	**109**	(107)
Depreciation and amortization expense	**22**	23	**28**	34	**18**	18	**68**	75
Other noninterest expense	**645**	568	**422**	436	**(29)**	33	**1,038**	1,037
Income (loss) from continuing operations before income taxes (TE)	**187**	317	**365**	483	**119**	17	**671**	817
Allocated income taxes and TE adjustments	**45**	76	**70**	104	**16**	(6)	**131**	174
Income (loss) from continuing operations	**142**	241	**295**	379	**103**	23	**540**	643
Income (loss) from discontinued operations, net of taxes	**—**	—	**—**	—	**2**	2	**2**	2
Net income (loss)	**142**	241	**295**	379	**105**	25	**542**	645
Less: Net income (loss) attributable to noncontrolling interests	**—**	—	**—**	—	**—**	—	**—**	—
Net income (loss) attributable to Key	**$ 142**	$ 241	**$ 295**	$ 379	**$ 105**	$ 25	**$ 542**	$ 645
AVERAGE BALANCES [b]								
Loans and leases	**$ 42,568**	$ 39,854	**$ 71,464**	$ 59,856	**$ 386**	$ 428	**$ 114,418**	$ 100,138
Total assets [a]	**45,638**	43,039	**81,898**	69,227	**60,656**	69,105	**188,192**	181,371
Deposits	**90,044**	89,278	**52,272**	56,401	**1,913**	1,237	**144,229**	146,916
OTHER FINANCIAL DATA								
Net loan charge-offs [b]	**$ 17**	$ 35	**$ 27**	$ (6)	**$ (1)**	$ —	**$ 43**	$ 29
Return on average allocated equity [b]	**16.20 %**	25.81 %	**12.63 %**	18.02 %	**21.83 %**	1.56 %	**14.66 %**	14.25 %
Return on average allocated equity	**16.20**	25.81	**12.63**	18.02	**22.25**	1.70	**14.71**	14.30
Average full-time equivalent employees [c]	**8,114**	7,976	**2,523**	2,371	**7,270**	6,662	**17,907**	17,009

(a) Substantially all revenue generated by our major business segments is derived from clients that reside in the United States. Substantially all long-lived assets, including premises and equipment, capitalized software, and goodwill held by our major business segments, are located in the United States.
(b) From continuing operations.
(c) The number of average full-time equivalent employees was not adjusted for discontinued operations.

Nine months ended September 30,	Consumer Bank		Commercial Bank		Other		Total Key	
Dollars in millions	2022	2021	2022	2021	2022	2021	2022	2021
SUMMARY OF OPERATIONS								
Net interest income (TE)	**$ 1,745**	$ 1,789	**$ 1,347**	$ 1,234	**$ 235**	$ 37	**$ 3,327**	$ 3,060
Noninterest income	**769**	798	**1,192**	1,379	**86**	108	**2,047**	2,285
Total revenue (TE) [a]	**2,514**	2,587	**2,539**	2,613	**321**	145	**5,374**	5,345
Provision for credit losses	**88**	(132)	**152**	(267)	**(3)**	(23)	**237**	(422)
Depreciation and amortization expense	**65**	61	**89**	101	**53**	64	**207**	226
Other noninterest expense	**1,941**	1,717	**1,184**	1,263	**(78)**	53	**3,047**	3,033
Income (loss) from continuing operations before income taxes (TE)	**420**	941	**1,114**	1,516	**349**	51	**1,883**	2,508
Allocated income taxes and TE adjustments	**101**	226	**218**	322	**47**	(25)	**366**	523
Income (loss) from continuing operations	**319**	715	**896**	1,194	**302**	76	**1,517**	1,985
Income (loss) from discontinued operations, net of taxes	**—**	—	**—**	—	**6**	11	**6**	11
Net income (loss)	**319**	715	**896**	1,194	**308**	87	**1,523**	1,996
Less: Net income (loss) attributable to noncontrolling interests	**—**	—	**—**	—	**—**	—	**—**	—
Net income (loss) attributable to Key	**$ 319**	$ 715	**$ 896**	$ 1,194	**$ 308** (d)	$ 87	**$ 1,523**	$ 1,996
AVERAGE BALANCES [b]								
Loans and leases	**$ 40,697**	$ 39,954	**$ 68,016**	$ 60,287	**$ 431**	$ 321	**$ 109,144**	$ 100,562
Total assets [a]	**43,782**	43,165	**78,536**	69,536	**62,471**	64,493	**184,789**	177,194
Deposits	**90,939**	87,667	**54,768**	54,309	**1,559**	1,047	**147,266**	143,023
OTHER FINANCIAL DATA								
Net loan charge-offs [b]	**$ 62**	$ 105	**$ 59**	$ 81	**(1)**	(21)	**$ 120**	$ 165
Return on average allocated equity [b]	**11.90 %**	26.70 %	**13.37 %**	18.65 %	**14.88 %**	1.78 %	**13.29 %**	14.87 %
Return on average allocated equity	**11.90**	26.70	**13.37**	18.65	**15.17**	2.04	**13.35**	14.96
Average full-time equivalent employees [c]	**8,013**	8,062	**2,441**	2,371	**7,023**	6,601	**17,477**	17,034

(a) Substantially all revenue generated by our major business segments is derived from clients that reside in the United States. Substantially all long-lived assets, including premises and equipment, capitalized software, and goodwill held by our major business segments, are located in the United States.
(b) From continuing operations.
(c) The number of average full-time equivalent employees was not adjusted for discontinued operations.

21. Revenue from Contracts with Customers

The following table represents a disaggregation of revenue from contracts with customers, by business segment, for the three- and nine-month periods ended September 30, 2022, and September 30, 2021. The development and application of the methodologies that we use to allocate items among our business segments is a dynamic process. Accordingly, financial results may be revised periodically to reflect enhanced alignment of expense base allocations drivers, changes in the risk profile of a particular business, or changes in our organizational structure.

	Three months ended September 30, 2022			Three months ended September 30, 2021		
Dollars in millions	Consumer Bank	Commercial Bank	Total Contract Revenue	Consumer Bank	Commercial Bank	Total Contract Revenue
NONINTEREST INCOME						
Trust and investment services income	**$ 99**	**$ 19**	**$ 118**	$ 105	$ 16	$ 121
Investment banking and debt placement fees	**—**	**102**	**102**	—	169	169
Services charges on deposit accounts	**56**	**36**	**92**	56	35	91
Cards and payments income	**42**	**20**	**62**	46	61	107
Other noninterest income	**3**	**—**	**3**	2	—	2
Total revenue from contracts with customers	**$ 200**	**$ 177**	**$ 377**	$ 209	$ 281	$ 490
Other noninterest income [a]			**$ 276**			$ 275
Noninterest income from Other[b]			**30**			32
Total noninterest income			**$ 683**			$ 797

(a) Noninterest income considered earned outside the scope of contracts with customers.
(b) Other includes other segments that consists of corporate treasury, our principal investing unit, and various exit portfolios as well as reconciling items which primarily represents the unallocated portion of nonearning assets of corporate support functions. Charges related to the funding of these assets are part of net interest income and are allocated to the business segments through noninterest expense. Reconciling items also includes intercompany eliminations and certain items that are not allocated to the business segments because they do not reflect their normal operations. Refer to Note 20 ("Business Segment Reporting") for more information.

Dollars in millions	Nine months ended September 30, 2022			Nine months ended September 30, 2021		
	Consumer Bank	Commercial Bank	Total Contract Revenue	Consumer Bank	Commercial Bank	Total Contract Revenue
NONINTEREST INCOME						
Trust and investment services income	**$ 307**	**$ 58**	**$ 365**	$ 311	$ 49	$ 360
Investment banking and debt placement fees	**—**	**316**	**316**	—	367	367
Services charges on deposit accounts	**170**	**109**	**279**	145	102	247
Cards and payments income	**120**	**49**	**169**	135	187	322
Other noninterest income	**8**	**—**	**8**	5	2	7
Total revenue from contracts with customers	**$ 605**	**$ 532**	**$ 1,137**	$ 596	$ 707	$ 1,303
Other noninterest income [(a)]			**$ 824**			$ 874
Noninterest income from Other[(b)]			**86**			108
Total noninterest income			**$ 2,047**			$ 2,285

(a) Noninterest income considered earned outside the scope of contracts with customers.
(b) Other includes other segments that consists of corporate treasury, our principal investing unit, and various exit portfolios as well as reconciling items which primarily represents the unallocated portion of nonearning assets of corporate support functions. Charges related to the funding of these assets are part of net interest income and are allocated to the business segments through noninterest expense. Reconciling items also includes intercompany eliminations and certain items that are not allocated to the business segments because they do not reflect their normal operations. Refer to Note 20 (“Business Segment Reporting”) for more information.

We had no material contract assets or contract liabilities as of September 30, 2022, and September 30, 2021.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of KeyCorp

Results of Review of Interim Financial Statements

We have reviewed the accompanying consolidated balance sheet of KeyCorp as of September 30, 2022, the related consolidated statements of income, comprehensive income, changes in equity for the three-and nine-month periods ended September 30, 2022 and 2021, the related consolidated statements of cash flows for the nine-month periods ended September 30, 2022 and 2021, and the related notes (collectively referred to as the “consolidated interim financial statements”). Based on our reviews, we are not aware of any material modifications that should be made to the consolidated interim financial statements for them to be in conformity with U.S. generally accepted accounting principles.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheet of KeyCorp as of December 31, 2021, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and the related notes (not presented herein); and in our report dated February 22, 2022, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet as of December 31, 2021 is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived

Basis for Review Results

These financial statements are the responsibility of KeyCorp's management. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to KeyCorp in accordance with the U.S. federal securities laws and the applicable rules and regulations of the SEC and the PCAOB. We conducted our review in accordance with the standards of the PCAOB. A review of interim financial statements consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.



Cleveland, Ohio
November 1, 2022

Item 3. Quantitative and Qualitative Disclosure about Market Risk

The information presented in the “Market risk management” section of the Management’s Discussion & Analysis of Financial Condition & Results of Operations is incorporated herein by reference.

Item 4. Controls and Procedures

As of the end of the period covered by this report, KeyCorp carried out an evaluation, under the supervision and with the participation of KeyCorp’s management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of KeyCorp’s disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”)), to ensure that information required to be disclosed by KeyCorp in reports that it files or submits under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to KeyCorp’s management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. Based upon that evaluation, KeyCorp’s Chief Executive Officer and Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective, in all material respects, as of the end of the period covered by this report. No changes were made to KeyCorp’s internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the last quarter that materially affected, or are reasonably likely to materially affect, KeyCorp’s internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

The information presented in the Legal Proceedings section of Note 17 (“Contingent Liabilities and Guarantees”) of the Notes to Consolidated Financial Statements (Unaudited) is incorporated herein by reference.

On at least a quarterly basis, we assess our liabilities and contingencies in connection with outstanding legal proceedings utilizing the latest information available. Where it is probable that we will incur a loss and the amount of the loss can be reasonably estimated, we record a liability in our consolidated financial statements. These legal reserves may be increased or decreased to reflect any relevant developments on a quarterly basis. Where a loss is not probable or the amount of the loss is not estimable, we have not accrued legal reserves, consistent with applicable accounting guidance. Based on information currently available to us, advice of counsel, and available insurance coverage, we believe that our established reserves are adequate and the liabilities arising from the legal proceedings will not have a material adverse effect on our consolidated financial condition. We note, however, that in light of the inherent uncertainty in legal proceedings there can be no assurance that the ultimate resolution will not exceed established reserves. As a result, the outcome of a particular matter or a combination of matters may be material to our results of operations for a particular period, depending upon the size of the loss or our income for that particular period.

Item 1A. Risk Factors

For a discussion of certain risk factors affecting us, see the section titled “Supervision and Regulation” in Part I, Item 1. Business, on pages 10-27 of our 2021 Form 10-K; Part I, Item 1A. Risk Factors, on pages 27-40 of our 2021 Form 10-K; the sections titled “Supervision and regulation” and “Strategic developments” in this Form 10-Q; and our disclosure regarding forward-looking statements in this Form 10-Q.

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

From time to time, KeyCorp or its principal subsidiary, KeyBank, may seek to retire, repurchase, or exchange outstanding debt of KeyCorp or KeyBank, and capital securities or preferred stock of KeyCorp, through cash purchase, privately negotiated transactions, or otherwise. Such transactions, if any, depend on prevailing market conditions, our liquidity and capital requirements, contractual restrictions, and other factors. The amounts involved may be material.

In July 2021, the Board of Directors authorized the repurchase of up to $1.5 billion of our Common Shares, effective the third quarter of 2021 through the third quarter of 2022. In September 2022, the Board of Directors approved the extension of the previous authorization through the third quarter of 2023.

The following table summarizes our repurchases of our Common Shares for the three months ended September 30, 2022. Refer to Note 19 (“Shareholders' Equity”) for more information regarding share repurchases made during the three and nine months ended September 30, 2022.

Calendar month	Total number of shares purchased [(a)]	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs [(a)]	Dollar value of shares that may yet be purchased as part of publicly announced plans or programs
July 1 - 31	571	17.51	571	746,021,383
August 1 - 31	1,541	19.64	1,541	745,991,117
September 1 - 30	—	—	—	745,991,117
Total	2,112	$ 19.07	2,112	

(a) Includes Common Shares deemed surrendered by employees in connection with our stock compensation and benefit plans to satisfy tax obligations.

Item 6. Exhibits

4.1	Certificate of Amendment to the Third Amended and Restated Articles of Incorporation of the Company with respect to Fixed Rate Reset Perpetual Non-Cumulative Preferred Stock, Series H, filed August 22, 2022, filed as Exhibit 4.1 to Form 8-K on August 24, 2022. ^
4.2	Form of Certificate representing Fixed Rate Reset Perpetual Non-Cumulative Preferred Stock, Series H, filed as Exhibit 4.2 to Form 8-K on August 24, 2022. ^
4.3	Deposit Agreement, dated as of August 24, 2022, among the Company, Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, and the holders from time to time of the depositary receipts described therein, filed as Exhibit 4.3 to Form 8-K on August 24, 2022. ^
4.4	Form of Depositary Receipt (included as part of Exhibit 4.3), filed as Exhibit 4.4 to Form 8-K on August 24, 2022. ^
10.1	Letter agreement between KeyBank National Association and Kevin T. Ryan, dated as of July 2, 2022. #
15	Acknowledgment of Independent Registered Public Accounting Firm.
22	Subsidiary Issuers of Guaranteed Securities, filed as Exhibit 22 to Form 10-K for the year ended December 31, 2021. ^
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*
32.2	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*
101	The following materials from KeyCorp’s Form 10-Q Report for the quarterly period ended September 30, 2022, formatted in inline XBRL: (i) the Consolidated Balance Sheets; (ii) the Consolidated Statements of Income and Consolidated Statements of Comprehensive Income; (iii) the Consolidated Statements of Changes in Equity; (iv) the Consolidated Statements of Cash Flows; and (v) the Notes to Consolidated Financial Statements.
104	The cover page from KeyCorp’s Form 10-Q for the quarterly period ended September 30, 2022, formatted in inline XBRL (contained in Exhibit 101).

\# Indicates management contract or compensatory plan or arrangement.

* Furnished herewith.

^ Incorporated by reference. Copies of these Exhibits have been filed with the SEC. Exhibits that are not incorporated by reference are furnished or filed with this report. Shareholders may obtain a copy of any exhibit, upon payment of reproduction costs, by writing KeyCorp Investor Relations, 127 Public Square, Cleveland, OH 44114-1306.

KeyCorp hereby agrees to furnish to the SEC, upon request, copies of instruments, including indentures, which define the rights of long-term debt security holders.

Information Available on Website

KeyCorp makes available free of charge on its website, www.key.com, its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to these reports as soon as reasonably practicable after KeyCorp electronically files such material with, or furnishes it to, the SEC. We also make available a summary of filings made with the SEC of statements of beneficial ownership of our equity securities filed by our directors and officers under Section 16 of the Exchange Act. Information contained on or accessible through our website or any other website referenced in this report is not part of this report.

SIGNATURE

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

KEYCORP

(Registrant)

November 1, 2022

/s/ Douglas M. Schosser

By: Douglas M. Schosser
Chief Accounting Officer
(Principal Accounting Officer)

EXHIBIT 10.1

Personal and Confidential
VIA ELECTRONIC DELIVERY

May 20, 2022
Kevin T. Ryan
[Home Address]

Dear Kevin:

This Letter Agreement (“Agreement”) confirms our discussions concerning your retirement from employment with KeyBank National Association (“Employer”), and it serves to outline the particular terms and conditions of the benefits to be provided to you under the terms of this Agreement in conjunction with your retirement. Please know that the benefits to be paid to you under the terms of this Agreement, if it becomes final, constitute a full and final settlement of any and all claims and causes of action that you may have (or that you believe that you may have) against Employer, KeyCorp and their respective parents, subsidiaries, affiliates, successors, predecessors, and assigns (hereinafter collectively and individually referred to as "Key"), including any claims that you believe you maintain under the KeyCorp Separation Pay Plan.

1. Termination: Effective as of the close of business on July 1, 2022 ("Termination Date"), and by operation of this Agreement without any further act on your part, you retire from your employment with Key. Effective as of the close of business on June 30, 2022, without any further act on your part, you resign from any officer position you hold with Key.
2. Payments and Benefits: Provided that you execute this Agreement within 5 days after your Termination Date and do not revoke it (the consideration period and the 7-day revocation period discussed herein are collectively referred to as the "Consideration Period"), you will receive the following payments and benefits, subject to your compliance with the remaining terms and conditions of this Agreement. Under no circumstances may you execute this Agreement prior to your Termination Date. You and Key agree that any changes to this Agreement following Key’s delivery of this Agreement to you, whether material or immaterial, will not restart the consideration period.

(a) Pay Continuation: You will receive Pay Continuation in the gross amount of your annual base salary as of the date of this Agreement, which shall be paid to you in bi-weekly installments, subject to withholdings, in accordance with Key's normal payroll procedures for a period of 52 weeks (e.g., from July 2, 2022 to June 30, 2023) (the "Pay Continuation Period"), or until the Pay Continuation amount is fully paid, whichever occurs first. Such Pay Continuation payments shall commence within 10 business days after the Release becomes effective and irrevocable. The first payment installment will include all amounts accrued from the Termination Date to the date of such installment. In no event shall Pay Continuation payments be made after one year following your Termination Date.

(b) COBRA Coverage: You will be eligible to continue your KeyCorp Medical, Dental and/or Vision Plan participation (if applicable) under the provisions of COBRA at the Key employee group rate during your Pay Continuation Period. At the conclusion of the Pay Continuation Period, if you wish to continue coverage under COBRA, you will be required to pay the full monthly COBRA Rate. If you are eligible to participate in the KeyCorp Retiree Medical Plan in accordance with the terms and conditions of that Plan, you will be notified under separate cover. Also, if you are eligible or may become eligible for Medicare within the next year,

you should seek advice from your legal counsel regarding the interaction of Medicare with COBRA coverage before making a COBRA election.

(c) Retirement Plans: If you participate in any KeyCorp retirement, deferred savings or pension plan, you will be able to receive a distribution of any vested benefits in accordance with the vesting and distribution provisions of the applicable Plan.

(d) Accrued PTO: Following your Termination Date, you will be paid for any accrued but unused PTO days in accordance with Key's policy.

(e) Incentive Compensation: You will remain eligible for an incentive compensation award for the 2022 performance year under the applicable fully discretionary annual incentive plan on a pro rata basis through your Termination Date, less applicable withholdings. You agree that you are not eligible for an Incentive Compensation award for the 2023 performance year. Incentive Compensation awards for the 2022 performance year will be paid in accordance with Key's risk balancing requirements and Key's normal payroll processes on or before March 15, 2023.

(f) Long-Term Incentive Compensation: If applicable to you, your deferred cash and equity awards that are outstanding as of the Termination Date shall be treated in accordance with the provisions of the applicable plans and award agreements.

(g) AYCO Services: You will be eligible for AYCO services at Key's expense for two years following your Termination Date. The value of these services will be considered compensation, and Key will communicate with you to ensure taxes are withheld and/or reimbursement occurs, as applicable and as required by applicable law.

3. No Other Benefits or Rights: You hereby acknowledge and agree that as a terminated employee you are not entitled to any continuing employee benefits except as provided in this Agreement. You further acknowledge and agree that you shall have no rights under the KeyCorp Separation Pay Plan. You understand that Key may adopt new or modified programs or benefits in the future that, depending on your individual circumstances, may be more or less advantageous than the benefits set forth in this Agreement. You understand that any new or modified benefits will not be available to you.

4. Discharge of Key's Obligations Upon Re-employment at Key: You understand and agree that (a) *prior to the conclusion of the Consideration Period*, if you commence new employment at Key, you will not be entitled to receive any sum whatsoever under this Agreement; you will be deemed to have voluntarily resigned from your current position at Key, releasing and discharging Key of all liability as a result thereof; and (b) *during the Pay Continuation Period,* if you secure new employment at Key, your entitlement to any further Pay Continuation payments will end. If you obtain new employment outside of Key, your Pay Continuation will continue until it is fully paid.

5. Neutral Reference: In response to prospective employers inquiring about you, Key will follow its neutral reference policy through its vendor wherein only dates of employment and last position held will be provided.

6. State Unemployment Benefits: Should you apply for unemployment compensation to the applicable state agency, Key will reply accurately to all information requests from any state unemployment compensation agency. You also understand that Key may be required to provide additional documents and information to a state unemployment compensation agency with information supporting its response.

7. Confidentiality of the Agreement: You agree that, unless compelled to disclose by valid legal process, or as permitted by Paragraphs 8 and 11, or in a proceeding to enforce the terms of this Agreement, you will keep strictly confidential and will not disclose to any person (except, if applicable, your spouse, accountant, or attorney) or any entity the terms and circumstances relating to this Agreement and your retirement from Key other than that you are leaving to pursue other interests and you are appreciative of the opportunities that were afforded to you at Key or words of similar import.

You are not prohibited from disclosing the terms of this Agreement to your spouse, if any, attorney, if any, or accountant, if any, in a proceeding to enforce its terms, or as otherwise required by law or court order.

8. Confidential, Proprietary and/or Trade Secrets Information; Non-Solicitation:

(a) Subject to the statement set forth below, and except as provided in Paragraph 11, you agree that you will not at any time, directly or indirectly, without written authorization from Key, make use of or disclose to any person or entity any confidential, or proprietary information, trade secrets, or other confidential data not in the public domain related to the systems, business, products, services, employees, or practices of Key ("Confidential Information") that you have acquired in any capacity during your employment with Key. You understand that the confidential character and proprietary nature of any of the foregoing Confidential Information does not become any less confidential or proprietary to Key because you may commit some of the information to memory or because you have maintained some of this information outside of Key's offices. You will promptly return to Key all identification cards, access codes, company credit cards, computers, customer and proprietary information on your smart phone, files, disks, work-papers, customer, vendor, and employee records, and any other property belonging to Key that is in your possession or control as of your Termination Date.

(b) You also hereby acknowledge that Key has informed you, in accordance with 18 U.S.C. § 1833(b), that you may not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret where the disclosure either is made (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

(c) You also certify and affirm that you have not and will not send to your personal email or any other email address or account any Confidential Information belonging to Key and you have or will return all hard copies (if applicable) of all Confidential Information belonging to Key that is either in your possession or under your control as of your Termination Date. You certify and affirm that you have not and will not make copies, download, transmit electronically, or store in any medium any of Key's confidential, proprietary, and/or trade secrets information in any form and that you have not and will not disclose, provide, or transmit, any such information or any copy thereof to any person or entity.

(d) For a period of twelve months following your Termination Date, you agree that you will not, without Key's prior written consent, directly or indirectly hire, solicit to hire or entice for employment on behalf of yourself or any other person or entity any Key Employee. For purposes of this Agreement, a "Key Employee" is: (1) any current Key employee; or (2) any person who was employed by Key at any time in the six (6) month period prior to your Termination Date.

(e) During the course of your employment at Key, you may become aware of Key's customers and prospects through access to trade secrets or other confidential or proprietary information. Except in the performance of your duties for Key, you acknowledge and agree that, from your employment date through a period of 12 months following your termination of employment with Key for any reason, you will not, directly or indirectly, for yourself or on behalf of any other person or entity:

(1) solicit any Key customer or potential Key customer for the purposes of directly or indirectly furnishing any financial or banking products or services that compete with or are a substitute for the products and/or services offered by Key, provided that such restriction shall only apply to: (a) any Key customers (i) with whom you directly interacted regarding Key's products or services, (ii) for whom you provided products or services, or (iii) about whom you were provided access to trade secrets or other confidential and proprietary information as an employee of Key; and (b) any Key prospects with whom you directly interacted regarding Key's products or services in the 12 months immediately preceding the termination of your employment with Key and about whom you were provided access to trade secrets or other confidential and proprietary information as an employee of Key; and

(2) conduct business with any such Key customers and prospects, provided that such restriction only would apply to financial and banking products and services that compete with or are a substitute for the products and/or services offered by Key and as such restrictions may be limited by FINRA Rule 2140.

If anything contained in the non-solicitation provision in Paragraphs 8(d) or 8(e) herein should be determined by any court to be illegal, invalid, unenforceable, or otherwise contrary to public policy, the validity and enforceability of the remaining parts, terms, or provisions shall not be affected thereby and said illegal or invalid part, term, or provision shall be amended to make it enforceable.

9. Cooperation: At all times following your Termination Date, you hereby agree that you will upon the written request of Key, make yourself reasonably available to Key to respond to questions and issues concerning

matters relating in whole or in part, to your responsibilities and assignments while employed at Key. With respect to legal process, you agree that you will use your best efforts to cooperate with Key and its counsel and to be available to provide such truthful testimony and other information at such times as are reasonably requested of you. Key will reimburse you for your reasonable business expenses incurred in your providing assistance to Key as permitted under Key's reimbursement policies.

10. Non-disparagement: Except as permitted by Paragraph 11, you agree that you will not disparage Key or any of its respective Affiliates, Subsidiaries, entities, products, services or practices. For purposes of this Agreement the terms “Affiliate” and "Subsidiary" include any director, officer, partner, employee, manager, or the applicable subsidiaries and affiliates of such entities. Key will not authorize any of its employees or agents to disparage you.

11. Legal Process and Disclosure: You understand and agree that nothing contained in this Agreement limits your ability to file a charge or complaint with the Equal Employment Opportunity Commission, the National Labor Relations Board, the Occupational Safety and Health Administration, the Securities and Exchange Commission or any other federal, state or local governmental agency or commission (“Government Agencies”). You further understand that this Agreement does not limit your ability to communicate with any Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including providing documents or other information, without notice to Key. This Agreement does not limit your right to receive an award for information provided to any Government Agencies. On the other hand, by signing this Agreement, you waive and release any right to any claims for money damages and equitable relief pursuant to the filing or prosecution of any administrative charge against Key or any resulting civil proceeding or lawsuit that may be commenced on your behalf for the recovery of such relief, and which arises out of the matters that are and may be released in this Agreement.

12. Release: (a) In consideration of Key entering into this Agreement and providing the benefits enumerated above, the sufficiency of which is acknowledged, and except for those exceptions enumerated in Subparagraph (b) below, you, for yourself and your heirs, legal representatives, and assigns, release, acquit, and forever discharge Employer, KeyCorp, their respective parent companies, subsidiaries, divisions, affiliates, related companies, predecessors, successors, partners, members, directors, officers, trustees, employees, independent contractors, consultants, stockholders, owners, attorneys, agents, benefit plans, subrogees, insurers, representatives and assigns (collectively, the “Released Parties”), whether alleged to have acted in their official capacities or personally, jointly and severally, from any and all liabilities, attorneys’ fees, obligations, duties, undertakings, agreements, contracts, compensation, incentive compensation, separation pay, severance, employee benefits, plans, policies, practices, claims, demands, damages, proceedings, actions, and causes of action of every kind, nature, and character, which you have had, now have, or may have in the future for events occurring to the date hereof, whether known or unknown, suspected or unsuspected, that are by reason of, or in any manner whatsoever connected with, or growing out of, your employment relationship with any of the Released Parties, or the termination of those employment relationships, including, without limitation, any alleged violation of the Civil Rights Act of 1991; Title VII of the Civil Rights Act of 1964, as amended; Americans with Disabilities Act; Employee Retirement Income Security Act; the Family and Medical Leave Act**; the Age Discrimination in Employment Act as amended by the Older Workers Benefit Protection Act**; the Worker Adjustment and Retraining Notification Act and any applicable, comparable state notice laws, the Fair Labor Standards Act, to the extent permitted by law; the Occupational Safety and Health Act of 1970; the individual laws and fair employment statutes of the state(s) in which you reside and/or work; and any other federal, state or local civil, labor, pension, wage-hour or human rights law, federal or state public policy, contract or tort law; any claim arising under federal or state common law of the state(s) in which you reside and/or work, including, but not limited to, constructive or wrongful discharge or intentional or negligent infliction of emotional distress; and/or any alleged violation or breach of any express, implied, or implied-in-law contract, agreement, promise, or duty, violation of public policy, emotional distress, degradation, reputation, humiliation, and any claim for compensatory, liquidated or punitive damages, back pay, front pay or any claim for reinstatement.

(b) This Agreement does not include, and **you do not waive, any rights or claims**: (i) which may arise after you sign this Agreement; (ii) for workplace injuries or occupational exposure which arise under any state's workers' compensation or unemployment benefit laws; (iii) for benefits in which you have a vested right under any retirement, deferred savings or pension plan; (iv) with respect to any vested equity awards (in accordance with the applicable Key equity plans and award agreements); (v) which cannot be released by law; or (vi) to enforce or to challenge the validity of this Agreement.
(c) You understand and agree that this Agreement may be used by Key as a complete defense to any past, present or future claim or entitlement asserted against Key based on events that have occurred from the beginning of time to the Effective Date of this Agreement.

(d) You expressly declare and warrant that you have reported all hours worked as of the date of this Agreement and have been paid for all hours worked and have received all leaves (paid or unpaid), compensation, wages, bonuses, commissions and/or other benefits that you are due, except as provided in this Agreement.

13. Employee-Specific Provisions:

(a) Representations Regarding Medicare: You declare and expressly warrant that you are not a Medicare beneficiary; that you are not suffering from end stage renal failure or amyotrophic lateral sclerosis; that you have not received Social Security disability benefits for 24 months or longer; and/or that you have not applied for Social Security disability benefits, and/or have not been denied Social Security disability benefits and are appealing the denial. You affirm, covenant and warrant that you have made no claim for illness or injury against, nor are you aware of any facts supporting any claim against Key under which Key could be liable for medical expenses incurred by you before or after the execution of this Release. Because you are not a Medicare recipient as of the date of this Release, you are aware of no medical expenses which Medicare has paid and for which Key is or could be liable now or in the future. You agree and affirm that, to the best of your knowledge, no liens of any governmental entities, including those for Medicare conditional payments, exist.
(b) ADEA Waiver: This Agreement contains a waiver of your rights and claims under the Age Discrimination in Employment Act ("ADEA"). Your waiver must be knowing and voluntary, which means, as a minimum, that you understand that:

a. the waiver is part of an agreement between you and your employer which is written so that you understand it;
b. the waiver specifically refers to rights or claims under ADEA;
c. you do not waive any rights or claims that may arise after this Agreement is executed by you;
d. your waiver is in exchange for consideration that is more valuable than what you are already entitled to;
e. you are hereby advised to consult with an attorney prior to executing this Agreement;
f. you have at least 21 days after receipt of this Agreement to decide whether to execute it; and
g. you will have 7 days after you execute this Agreement to revoke it, and this Agreement will not be effective or enforceable until this 7-day period has expired.

You acknowledge that you have been given at least 21 days to review and consider the Agreement. You understand that any changes made to this document, whether material or immaterial, will not restart this 21-day period. You further acknowledge that if you receive any sum under this Agreement and later revoke it, that you must repay Key for all sums received by you under this Agreement.

14. Affirmations: You acknowledge and affirm that: (1) you have been specifically advised that by signing this Agreement you are forever giving up your legal rights to sue the Released Parties for the subject matters of this Agreement; **however, nothing in this Agreement prohibits you from filing a charge or complaint with or from participating in any investigation or proceeding of the U.S. Equal Employment Opportunity Commission or the applicable State or Local Fair Employment Practices Agency**; (2) you have carefully read and fully understand all of the provisions of this Agreement; (3) you have not relied on any representations of Key to induce you to enter into this Agreement, other than as specifically set forth herein; (4) you are fully competent to enter into this Agreement; (5) you have not been pressured, coerced or otherwise unduly influenced to enter into this Agreement; and (6) you have voluntarily entered into this Agreement of your own free will. You further acknowledge and represent that in the event you choose to execute this Agreement prior to the expiration of the Consideration Period, you have voluntarily done so of your own free will, without coercion or duress.

15. Key's Rights and Remedies: In the event of a material breach by you of any of your obligations under this Agreement, including without limitation (i) your obligations to return all Key-owned property and to cooperate with Key in connection with any reasonable review of your previous assignments and responsibilities and (ii) your obligations regarding confidentiality (unless compelled to disclose by valid legal process) and non-disparagement hereunder; and (iii) your obligations to preserve Key's trade secrets, non-public information, intellectual property, non-solicitation and non-hiring of Key's employees, and non-solicitation of Key's customers and prospective customers, notwithstanding anything to the contrary in this Agreement, Key's obligations to pay you Pay Continuation payments hereunder shall cease and Key will be entitled to injunctive relief (without the necessity of posting any bond). In the event that Key is required to seek injunctive relief under the provisions of this Paragraph, you recognize and agree that Key will also be entitled to be reimbursed for the cost of its attorney fees relating to such legal action. In the event that a court of competent jurisdiction determines that you have materially breached the provisions of your obligations to Key as outlined under this Paragraph, you understand that you will be required to repay Key for any amounts paid to you under this Agreement. These rights and remedies are in addition to any and all other rights and remedies that Key may be entitled to under law or other contractual provisions.

16. Compliance with Section 409A: This Agreement is intended to be interpreted and applied so that the payment of the benefits set forth herein shall be exempt from, or comply with, the requirements of Internal Revenue Code Section 409A ("Section 409A"). In that regard, (a) each installment in any series of installment payments pursuant to this Agreement shall be treated as a separate payment for purposes of Section 409A; (b) the parties will take all steps necessary to ensure that your termination of employment under the circumstances described in Section 1 of this Agreement constitutes a "separation from service" within the meaning of Section 409A; and (c) if you are a "specified employee," as determined by Key in accordance with Section 409A, then to the extent required in order to comply with Section 409A, any payments or benefits paid or provided under this Agreement that constitute a "deferral of compensation" within the meaning of Section 409A, that are provided as a result of your separation from service and that would otherwise be paid or provided during the first six months following your separation from service shall be accumulated through and paid or provided within 30 days after the first business day following the six month anniversary of your separation from service (or, if you should die during such six-month period, within 30 days after your death). Notwithstanding any of the foregoing to the contrary, Key and its respective officers, directors, employees, or agents make no guarantee that the terms of this Agreement as written comply with, or are exempt from, the provisions of Section 409A, and none of the foregoing shall have any liability for the failure of the terms of this Agreement as written to comply with, or be exempt from, the provisions of Section 409A. You acknowledge and agree that you are not entitled to these payments absent your execution of this Agreement.

17. Miscellaneous Provisions: You understand that this Agreement represents our complete understanding and agreement and that it supersedes and preempts any and all prior agreements, arrangements, or any understandings between the parties regarding the subject matter of this Agreement, except any mutual arbitration agreement entered into between the parties. Such mutual arbitration agreements are intended to remain in full force and effect. Notwithstanding the foregoing sentence, the terms and conditions contained in all Key plans, including but not limited to, deferred compensation plans, equity plans, health and benefits plans and retirement plans, for which you are or were eligible, remain in full force and effect. No one relies on any representations, oral or written, on the effect, enforceability, or meaning of this Agreement, except as is specifically set forth in this Agreement. This Agreement can only be modified or waived, in whole or in part, by a writing signed by you and Key. A facsimile of this Agreement shall be treated in all respects as an original document. This Agreement shall inure to the benefit of and be binding upon you and Key and our respective heirs, legal representatives, affiliates, successors, and assigns. You may not assign your rights, duties or obligations under this Agreement; provided, however, this provision does not prohibit your beneficiaries from being entitled to receive the severance pay specified in Section 2 in the event of your death after this Agreement is effective but before you receive that pay. This Agreement is not an admission by Key of any liability to you. This Agreement shall be governed by Ohio law without regard to conflicts of laws principles. If any term, condition, clause or provision of this Agreement shall be determined by a Court of competent jurisdiction to be void or invalid at law, then only that term, condition, clause or provision that is determined to be void or invalid shall be stricken from the Agreement and the remainder of the Agreement shall remain in full force and effect. You understand and agree that any rule of law or decision that would require interpretation of any claimed

ambiguity in this Agreement against the party that drafted it has no application to this Agreement and is expressly waived.
18. Counterparts: An electronic copy of this Agreement and an electronic signature of a party shall be treated in all respects as an original document and counterparts of this Agreement may be executed separately and taken together will be treated as one complete original document. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, legal representatives, affiliates, successors, and assigns.
Kevin, I wish you the best.

Sincerely,
KeyBank National Association

/s/ Brian L. Fishel
Brian L. Fishel
Chief Human Resources Officer

I HAVE CAREFULLY READ AND FULLY UNDERSTAND THE PROVISIONS OF THIS AGREEMENT, INCLUDING MY WAIVER OF CLAIMS AGAINST KEY. I HAVE NOT RELIED UPON ANY OTHER REPRESENTATION OR STATEMENT, WRITTEN OR ORAL. I HAVE HAD THE OPPORTUNITY, IF SO DESIRED, TO CONSULT WITH AN ATTORNEY PRIOR TO EXECUTING THIS AGREEMENT AND WAIVING ANY CLAIMS.

AGREED TO this 2nd day of July, 2022

/s/ Kevin T. Ryan
Kevin T. Ryan

EXHIBIT 15

Acknowledgment of Independent Registered Public Accounting Firm

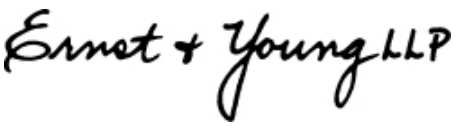
November 1, 2022

To the Shareholders and Board of Directors of KeyCorp

We are aware of the incorporation by reference in the following Registration Statements (including all amendments thereto) of KeyCorp:

Form S-3 No. 333-55959
Form S-3 No. 333-59175
Form S-3 No. 333-64601
Form S-3 No. 333-76619
Form S-3 No. 333-239044
Form S-8 No. 333-49609
Form S-8 No. 333-70669
Form S-8 No. 333-107074
Form S-8 No. 333-107075
Form S-8 No. 333-107076
Form S-8 No. 333-256086
Form S-8 No. 333-112225
Form S-8 No. 333-167093
Form S-8 No. 333-188703
Form S-8 No. 333-208272
Form S-8 No. 333-231689

of our review report dated November 1, 2022 relating to the unaudited consolidated interim financial statements of KeyCorp that are included in its Form 10-Q for the quarter ended September 30, 2022.



Ernst & Young
Cleveland, Ohio

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002

I, Christopher M. Gorman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of KeyCorp;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

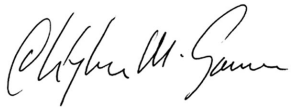
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.



Date: November 1, 2022

Christopher M. Gorman
Chairman, Chief Executive Officer and President

EXHIBIT 31.2

CERTIFICATION PURSUANT TO
SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002

I, Donald R. Kimble, certify that:

1. I have reviewed this quarterly report on Form 10-Q of KeyCorp;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.



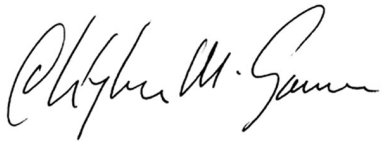
Date: November 1, 2022

Donald R. Kimble
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
SECTION 906 OF THE
SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. 1350, the undersigned officer of KeyCorp (the "Company") hereby certifies that the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.



Date: November 1, 2022

Christopher M. Gorman
Chairman, Chief Executive Officer and President

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
SECTION 906 OF THE
SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. 1350, the undersigned officer of KeyCorp (the "Company") hereby certifies that the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.



Date: November 1, 2022

Donald R. Kimble
Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.