



The PNC Financial Services Group, Inc.
Basel III Pillar 3 Report: Standardized Approach
March 31, 2019

Pillar 3 Disclosure	Description	Pillar 3 Report	Page References	
			March 31, 2019 Form 10-Q	2018 Form 10-K
Introduction		3		
	Forward-Looking Statements	3	36	81
	Basis of Consolidation	3		90
	Basel III Overview	3	28	
Capital		5		
	Summary of Capital	5		29, 130, 144
	Restrictions on Transfer of Funds or Total Capital	5		149
	Capital Adequacy	5		
	Capital Ratios	6		
	Table 1: Capital Ratios	6	29	
	Table 2: Standardized Risk-Weighted Assets	7		
Credit Risk		7		
	Credit Risk Management	7	18	53, 56
	Summary of Credit Exposures	8	8, 9, 19, 20, 21, 46, 51, 52, 64, 81	53, 90
	Table 3: Loan Exposures by Remaining Contractual Maturity	8		
Credit Risk Mitigation		9		
Counterparty Credit Risk		9	64	
	Counterparty Credit Risk Mitigation	9		
	Collateral	9	67	
	Table 4: Counterparty Credit Risk Exposures	10		
Securitization		10		101
	Summary of Accounting Policies for Securitization Activities	10		90, 101
	Risk Management	10	46, 52	137
	Table 5: Securitization Exposures by Underlying Asset Type	11		
	Regulatory Treatment of Securitizations	11		
	Table 6: Capital Requirements of Securitization Exposures by Risk-Weighting	11		
Equities Not Subject to the Market Risk Rule		12	55	70, 90, 115
	Summary of Equity Investment Exposures	12	10, 30, 44	42, 70, 101
	Table 7: Book Value and Fair Value of Equity Exposures Not Subject to Market Risk Rule	12		
	Table 8: Capital Requirements of Equity Investment Exposures by Risk-Weighting	13		
Market Risk Capital		13		
	Governance of Covered Positions	13		
	Valuation Policies, Procedures & Methodologies	13	55	14, 115
	Value at Risk (VaR) Models	13		
	Table 9: VaR-Based Metrics	14		
	Back Testing	14		
	Model Validation	15		
	Stress Testing	15		
	Securitization Positions	15		
Interest Rate Risk for Non-Trading Activities		16	30	70
Glossary of Terms		16		78

INTRODUCTION

The PNC Financial Services Group, Inc. (PNC) is one of the largest diversified financial services companies in the United States and is headquartered in Pittsburgh, Pennsylvania. PNC has businesses engaged in retail banking, including residential mortgage, corporate and institutional banking and asset management, providing many of its products and services nationally. Our retail branch network is located in markets across the Mid-Atlantic, Midwest and Southeast. We also have strategic international offices in four countries outside the U.S. At March 31, 2019, consolidated total assets, total deposits and total shareholders' equity were \$392.8 billion, \$271.2 billion and \$48.5 billion, respectively.

PNC is a bank holding company registered under the Bank Holding Company Act of 1956 and a financial holding company under the Gramm-Leach-Bliley Act. PNC provides its products and services primarily through PNC's only insured depository institution subsidiary, PNC Bank, National Association (PNC Bank).

This report (Pillar 3 Report) provides information about PNC's capital structure, risk exposures, risk assessment processes, risk-weighted assets and overall capital adequacy and should be read in conjunction with PNC's Securities and Exchange Commission (SEC) filings, including the Annual Report on Form 10-K for the year ended December 31, 2018 (2018 Form 10-K) and Quarterly Report on Form 10-Q for the period ended March 31, 2019 (March 31, 2019 Form 10-Q). These SEC filings are available at www.pnc.com/secfilings. The Pillar 3 Report and other regulatory disclosures, including PNC Bank's Call Report, are available at <http://www.pnc.com/regulatorydisclosures>.

Forward-Looking Statements

Certain statements in this Pillar 3 Report are forward-looking statements, which are subject to numerous assumptions, risks and uncertainties, which change over time. Forward-looking statements speak only as of the date made. We do not assume any duty and do not undertake to update forward-looking statements. Actual results or future events could differ, possibly materially, from those anticipated in forward-looking statements, as well as from historical performance. See the Cautionary Statement Regarding Forward-Looking Information in PNC's March 31, 2019 Form 10-Q for more information. Also see all risks and uncertainties disclosed in PNC's SEC filings, including its 2018 Form 10-K, and subsequent reports on Forms 10-K, 10-Q and 8-K, Proxy Statements on Schedule 14A, and, if applicable, its registration statements under the Securities Act of 1933, as amended, all of which are or will upon filing be accessible on PNC's website at www.pnc.com/secfilings and on the SEC's website at www.sec.gov.

Basis of Consolidation

Our consolidated financial statements include the accounts of the parent company and its subsidiaries, most of which are wholly-owned, certain partnership interests and variable interest entities that are required to be consolidated under accounting principles generally accepted in the United States of America (GAAP). We have eliminated intercompany accounts and transactions. The basis for consolidation for regulatory capital calculations is the same as that used in the presentation of PNC's consolidated financial statements, which is described in further detail in Note 1 Accounting Policies of our 2018 Form 10-K. Consistent with the regulatory capital rules, the minimum capital requirement for our consolidated insurance underwriting subsidiaries under applicable law is deducted from our regulatory capital.

Basel III Overview

PNC and PNC Bank are subject to the regulatory capital requirements established by the Board of Governors of the Federal Reserve System (Federal Reserve) and the Office of the Comptroller of the Currency (OCC), respectively. In July 2013, the U.S. banking agencies adopted rules to implement the new international regulatory capital standards established by the Basel Committee on Banking Supervision (Basel Committee), known as "Basel III", as well as to implement certain provisions of Dodd-Frank. Many provisions are phased-in over a period of years, with the rules generally fully phased-in as of January 1, 2019. The rules adopted in July 2013 generally have three fundamental parts.

The first part, referred to as the Basel III capital rule, among other things, narrowed the definition of regulatory capital, requires banking organizations with \$15 billion or more in assets (including PNC) to phase-out trust preferred securities from Tier 1 regulatory capital, establishes a new common equity Tier 1 (CET1) capital regulatory requirement for banking organizations, and revises the capital levels at which PNC and PNC Bank would be subject to prompt corrective action. The Basel III capital rule became effective on January 1, 2014 for PNC and PNC Bank, although many provisions are phased-in over a period of years.

The second major part of the rules adopted in July 2013 is referred to as the standardized approach and materially revises the framework for the risk-weighting of assets under Basel I. The standardized approach for risk-weighted assets takes into account credit and market risk. Under the standardized approach for credit risk, the nominal dollar amounts of assets and credit equivalent amounts of off-balance sheet items are generally multiplied by one of several risk adjustment percentages set forth in the rules and that increase as the perceived credit risk of the relevant asset increases. For certain types of exposures, such as securitization exposures, the standardized approach establishes one or more methodologies that are to be used to calculate the risk-weighted asset amount for the exposure. The standardized approach took effect on January 1, 2015.

The third part of the rules adopted in July 2013 is referred to as the advanced approaches and materially revises the framework for the risk-weighting of assets under Basel II. The Basel II framework, which was adopted by the Basel Committee in 2004, seeks to provide more risk-sensitive regulatory capital calculations and promote enhanced risk management practices among large, internationally active banking organizations. Prior to fully implementing the advanced approaches to calculate risk-weighted assets, PNC and PNC Bank must successfully complete a “parallel run” qualification phase. PNC and PNC Bank entered this parallel run qualification phase on January 1, 2013.

The risk-based capital rules that the federal banking regulators have adopted require the capital-to-assets ratios of banking organizations, including PNC and PNC Bank, to meet certain minimum standards. The Basel III rule generally divides regulatory capital into three components: CET1 capital, additional Tier 1 capital (which, together with CET1 capital, comprises Tier 1 capital) and Tier 2 capital. CET1 capital is generally common stock, retained earnings, qualifying minority interest and, for advanced approaches banking organizations, accumulated other comprehensive income related to both available for sale securities and pension and other post-retirement plans, less the deductions required to be made from CET1 capital. Additional Tier 1 capital generally includes, among other things, perpetual preferred stock and qualifying minority interests, less the deductions required to be made from additional Tier 1 capital. Tier 2 capital generally comprises qualifying subordinated debt, less any required deductions from Tier 2 capital. There are significant limits on the extent to which minority interests in consolidated subsidiaries may be included in regulatory capital. Total capital is the sum of Tier 1 capital and Tier 2 capital, less the deductions required from Total capital.

Because PNC remains in the parallel run qualification phase for the advanced approaches, our regulatory risk-based capital ratios in 2019 are calculated using the standardized approach for determining risk-weighted assets. Under the standardized approach for determining credit risk-weighted assets, exposures are generally assigned a pre-defined risk weight. Exposures to high volatility commercial real estate, past due exposures and equity exposures are generally subject to higher risk weights than other types of exposures. Once we exit parallel run, our regulatory risk-based capital ratios will be the lower of the ratios calculated under the standardized approach and the advanced approaches.

The Basel III regulatory capital ratios of PNC and PNC Bank as of March 31, 2019 exceeded the applicable minimum levels. For additional information regarding the Basel III capital ratios of PNC and PNC Bank as of March 31, 2019, as well as the levels needed to be considered “well capitalized”, see the Capital Management portion of the Liquidity and Capital Management section of Risk Management in Part I, Item 2 of our March 31, 2019 Form 10-Q.

The Basel III rules also include public disclosure requirements that generally apply to banking organizations with total consolidated assets of \$50 billion or more, including PNC. An advanced approaches banking organization that meets the \$50 billion asset threshold, but that has not exited parallel run, such as PNC, must make the disclosures required under the standardized approach. Accordingly, the disclosures by PNC in this Pillar 3 Report include those required by the standardized approach. PNC is the top-tier entity within the PNC organization to which the standardized approach applies. In addition, PNC has more than \$1 billion in aggregate quarterly average trading assets and trading liabilities, and is subject to the market risk capital rule as amended (the “Market Risk Rule”). This Pillar 3 Report also includes PNC’s required disclosures under the Market Risk Rule.

CAPITAL

Summary of Capital

PNC's regulatory capital structure consists of the following capital instruments:

Common Stock

PNC has \$5 par value common stock. At March 31, 2019, there were 800 million shares authorized, and 542 million shares issued, of which 90 million shares were held in treasury at cost. Holders of PNC common stock are entitled to receive dividends when declared by PNC's Board of Directors out of funds legally available for this purpose. See Part II, Item 5, Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities in our 2018 Form 10-K for additional information on our common stock.

Preferred Stock

See Note 15 Equity in our 2018 Form 10-K for information on our preferred stock.

Trust Preferred Capital Securities

At March 31, 2019, PNC had \$206 million in principal amount of an outstanding junior subordinated debenture associated with \$200 million of trust preferred securities that were issued by a subsidiary statutory trust. See Note 10 Borrowed Funds in our 2018 Form 10-K for additional information on these instruments.

Qualifying Subordinated Debt

PNC had \$3.7 billion in subordinated debt that qualified as Tier 2 capital for the Basel III ratio at March 31, 2019. The interest rates on our subordinated debt range from 2.70% to 6.88% and maturities range from 2019 through 2028.

Restrictions on Transfer of Funds or Total Capital

Federal law and regulations place a variety of restrictions on the ability of PNC to transfer funds or total capital among entities within the PNC group. See Note 18 Regulatory Matters in our 2018 Form 10-K for additional information on these restrictions.

Capital Adequacy

PNC's overall capital planning objective is to maintain sufficient capital resources, both in terms of quantity and quality, to cover all of the firm's risks and allow the firm to operate effectively through a range of economic environments. PNC's internal capital adequacy process (CAP) supports this overall objective by taking into account capital stress testing results, capital and liquidity positions and other risk considerations. In addition, PNC's CAP has a sound risk management infrastructure, including but not limited to, the thorough review and consideration of alternative economic scenarios as well as other risks. The Board of Directors, its Risk Committee, and senior management use the firm's CAP results to assess the level of capital that is appropriate for the firm to maintain in light of the range of risks facing the firm, the firm's business strategy, and its risk appetite. Sound capital stress testing practices and methodologies are a key component of PNC's CAP.

In addition to the CAP, PNC is subject to the Federal Reserve's capital plan rule, annual capital stress testing requirements and Comprehensive Capital Analysis and Review (CCAR) process, as well as the applicable annual and mid-year Dodd-Frank capital stress testing requirements of the Federal Reserve and the OCC. As part of the CCAR process, the Federal Reserve undertakes a supervisory assessment of PNC's capital adequacy. This assessment is based on a review of a comprehensive capital plan submitted by PNC to the Federal Reserve that describes the company's planned capital actions during the nine-quarter review period, as well as the results of stress tests conducted by both the company and the Federal Reserve under different hypothetical macroeconomic scenarios, including a supervisory adverse and a supervisory severely adverse scenario provided by the Federal Reserve. After completing its review, the Federal Reserve may object or not object to PNC's proposed capital actions, such as plans to pay or increase common stock dividends, repurchase common stock, or redeem preferred stock or other regulatory capital instruments.

Capital Ratios

The Basel III Common equity Tier 1 capital, Tier 1 risk-based capital and Leverage ratios now reflect the full phase-in of all Basel III adjustments, effective January 1, 2018. The Basel III Total risk-based capital ratio includes \$60 million of nonqualifying trust preferred capital securities that are subject to a phase-out period that runs through 2021. All current period capital ratios are calculated using the regulatory capital methodology applicable to us during 2019. These Basel III capital ratios may be impacted by any additional regulatory guidance or analysis by PNC as to the application of the rules to PNC.

At March 31, 2019, PNC and PNC Bank, our sole banking subsidiary, were both considered “well capitalized,” based on applicable U.S. regulatory capital ratio requirements. To qualify as “well capitalized,” PNC must have Basel III capital ratios of at least 6% for Tier 1 risk-based capital and 10% for Total risk-based capital, and PNC Bank must have Basel III capital ratios of at least 6.5% for Common equity Tier 1 risk-based capital, 8% for Tier 1 risk-based capital, 10% for Total risk-based capital and a Leverage ratio of at least 5%. For PNC Bank’s capital ratios, see PNC Bank’s Call Report for the period ended March 31, 2019.

The Basel III capital rule also includes a capital conservation buffer requirement above the minimum risk-based capital ratio requirements that banking organizations must meet in order to avoid limitations on capital distributions (including dividends and repurchases of any Tier 1 capital instrument, including common and qualifying preferred stock) and certain discretionary incentive compensation payments. The multi-year phase-in of the capital conservation buffer requirement began on January 1, 2016, and, for 2019, PNC and PNC Bank are required to maintain a Common equity Tier 1 capital ratio of at least 7.0%, a Tier 1 capital ratio of at least 8.5%, and a Total risk-based capital ratio of at least 10.5% to avoid limitations on capital distributions and certain discretionary incentive compensation payments. At March 31, 2019, both PNC and PNC Bank were above these ratio requirements.

The following table outlines the Basel III ratios for PNC as of March 31, 2019:

Table 1: Capital Ratios (a)

In millions	March 31, 2019 Basel III
<u>PNC</u>	
Regulatory capital	
Common equity Tier 1 capital	\$ 32,056
Tier 1 capital	\$ 35,889
Total capital	\$ 42,651
Risk-weighted assets	
Basel III standardized approach risk-weighted assets	\$ 328,128
Basel III advanced approaches risk-weighted assets	\$ 298,889
Average quarterly adjusted total assets	\$ 373,374
Risk-based capital and leverage ratios	
Common equity Tier 1	9.8%
Tier 1	10.9%
Total	13.0%
Leverage	9.6%

(a) See Table 28: Basel III Capital in the Capital Management portion of the Liquidity and Capital Management section of Risk Management in our March 31, 2019 Form 10-Q for additional information on the elements of, and, adjustments and deductions to our consolidated regulatory capital.

The following table outlines PNC's standardized approach risk-weighted assets as of March 31, 2019 using the categorization based on the standardized definitions:

Table 2: Standardized Risk-Weighted Assets

In millions	March 31, 2019	
On Balance Sheet		
Exposures to sovereign entities (a)		
Exposures to depository institutions and foreign banks	\$	381
Exposures to public sector entities		3,857
Corporate exposures		169,848
Residential mortgage exposures		29,625
High volatility commercial real estate		5,613
Past due loans		865
Other assets		23,450
Securitization exposures		10,152
Equity exposures		16,931
Off Balance Sheet and Market Risk		
Off balance sheet commitments, maturity less than one year		5,144
Off balance sheet commitments, maturity more than one year		46,098
Derivatives		2,447
Securitization exposures		1,629
Letters of credit and other		9,843
Market risk		2,245
Total Standardized Risk-Weighted Assets	\$	328,128

(a) Exposures to, and portions of exposures that are directly and unconditionally guaranteed by, the U.S. government, its agencies and the Federal Reserve receive 0% risk weight.

CREDIT RISK

Credit risk represents the possibility that a customer, counterparty, or issuer may not perform in accordance with contractual terms. Credit risk is inherent in the financial services business and results from extending credit to customers, purchasing securities, and entering into financial derivative transactions and certain guarantee contracts. Credit risk is one of our most significant risks. Our processes for managing credit risk are embedded in PNC's risk culture and in our decision-making processes using a systematic approach whereby credit risks and related exposures are identified and assessed, managed through specific policies and processes, measured and evaluated against our risk appetite and credit concentration limits, and reported, along with specific mitigation activities, to management and the Board of Directors through our governance structure.

Credit Risk Management

Credit risk management is integrated into the overall enterprise risk management governance model. The committees responsible for conducting specific oversight, monitoring and reporting of credit risk management activities are described in further detail within the Risk Management section in Part II, Item 7 of our 2018 Form 10-K. PNC's overall credit process includes comprehensive credit policies, judgmental or statistical credit underwriting, frequent and detailed risk measurement and modeling, extensive credit training programs, and an ongoing credit risk review and/or audit process. PNC management desires to construct and maintain a loan portfolio that will allow it to meet its strategic return goals while remaining within our risk appetite, as described further in the Risk Management section in Part II, Item 7 of our 2018 Form 10-K. A component of our credit risk management framework is our credit concentration process, by which we maintain limits and monitor credit exposure by industry, geography, property, product type and customer. Loan participations with third parties, and loan sales and syndications, are used to manage risk concentrations.

In addition to credit policies and procedures, PNC uses established guidelines for delinquent and nonperforming loans, acceptable levels of industry and total borrower exposure, and other relevant credit measures to monitor risk. These guidelines are established by Credit Risk Management at the corporate, business and segment levels with the goal of achieving a desired level of risk within PNC's risk appetite. The established portfolio limits focus on specific pools or characteristics of risk and are designed to ensure that we become aware of portfolio trends and help to enforce the desired construct of the loan portfolio. We may employ portfolio diversification and risk mitigation techniques to counter any undesirable risk pool trends or concentrations. Please refer to the Credit Risk Management section within Part I, Item 2 of our March 31, 2019 Form 10-Q and Part II, Item 7 of our 2018 Form 10-K for the metrics that we use to monitor and manage credit risk.

Credit risk management actions undertaken across the enterprise include continual refinement of underwriting standards, efforts to reduce credit exposure where appropriate, and regular credit risk monitoring and management activities. To further mitigate credit risk, we may periodically reduce or exit certain lending areas. Where we have chosen not to retain the credit risk, it is either because it did not fit within the desired risk appetite, and/or because compensation for such risk is not adequate.

Summary of Credit Exposures

PNC's major types of credit risk exposures consist of the following, all of which are presented in accordance with GAAP:

Loans

PNC had \$232.3 billion in loans at March 31, 2019. See the Loans section within the Consolidated Balance Sheet Review in Part I, Item 2 of our March 31, 2019 Form 10-Q for quantitative information on our loans and Note 3 Asset Quality in our March 31, 2019 Form 10-Q for further information on loans. Also see Note 4 Allowance for Loan and Lease Losses in our March 31, 2019 Form 10-Q for information on our allowance for loan losses.

Credit concentration limits have been established to avoid excessive credit concentrations in certain risk pools that, in the event of increased credit losses, could affect portfolio optimization in terms of capital preservation. Credit concentrations arise when otherwise unrelated loans are linked by a common characteristic (such as aggregate customer exposure, industry, product, property or geography).

See Table 15 Commercial Loans by Industry within Credit Risk Management in Part I, Item 2 of our March 31, 2019 Form 10-Q for the distribution of commercial loans by industry. See Table 16 Commercial Real Estate Loans by Geography and Property Type, Table 17 Home Equity Loans by Geography and by Lien Priority and Table 18 Residential Real Estate Loans by Geography within Credit Risk Management in Part I, Item 2 of our March 31, 2019 Form 10-Q for loans by geographic market, property type and lien type.

The following table presents our consumer and commercial loan portfolios by remaining contractual maturity:

Table 3: Loan Exposures by Remaining Contractual Maturity

March 31, 2019				
In millions	Less than one year	One to five years	Greater than five years	Total
Commercial loans	\$ 31,348	\$ 101,384	\$ 25,710	\$ 158,442
Consumer loans	2,512	13,078	58,261	73,851
Total	\$ 33,860	\$ 114,462	\$ 83,971	\$ 232,293

The methodologies used to estimate our allowance for loan and lease losses and PNC's policies for: determining past due or delinquency status; placing loans on nonaccrual; returning loans to accrual status; identifying impaired loans, including the definition of impaired loans; and charging off uncollectible amounts are described in detail in the Credit Risk Management and Critical Accounting Estimates and Judgments sections in Part II, Item 7 and in Note 1 Accounting Policies within our 2018 Form 10-K.

Securities

PNC had \$83.9 billion in investment securities at March 31, 2019. See the Investment Securities section within the Consolidated Balance Sheet Review in Part I, Item 2 of our March 31, 2019 Form 10-Q for quantitative information on our investment securities. Also see Note 5 Investment Securities, in our March 31, 2019 Form 10-Q for further information on investment securities, including the remaining contractual maturity on our debt securities.

Cash

PNC had \$15.3 billion in interest-earning deposits with banks and \$5.1 billion in cash and due from banks at March 31, 2019. See the Consolidated Balance Sheet Review in Part I, Item 2 of our March 31, 2019 Form 10-Q for further information on interest-earning deposits with banks.

Derivatives

PNC had \$2.4 billion in gross fair value of derivatives in an asset position and \$1.9 billion in gross fair value of derivatives in a liability position at March 31, 2019. See Note 9 Financial Derivatives in our March 31, 2019 Form 10-Q for further quantitative and qualitative information on derivatives.

See the Average Consolidated Balance Sheet and Net Interest Analysis in the Statistical Information section of Part I, Item 1 in our March 31, 2019 Form 10-Q for average balances of our credit risk exposures.

CREDIT RISK MITIGATION

PNC uses various strategies to mitigate credit risk in its portfolios, including: establishing credit risk appetite measures and limits that define acceptable levels of total borrower exposure, and transferring loans to government agencies in securitization transactions. As described within the Counterparty Credit Risk section of this Pillar 3 Report, we may also obtain collateral from counterparties to manage our overall credit risk. In addition, guarantors can serve as a secondary source of repayment. The primary types of guarantors mitigating credit risk are: individuals, business entities, and the U.S. Government. Under the standardized approach, PNC can recognize a credit risk mitigation benefit for certain third-party guarantees. As of March 31, 2019, the reduction to risk-weighted assets as a result of our qualifying third-party guarantees was approximately \$2.3 billion.

COUNTERPARTY CREDIT RISK

Counterparty credit exposure arises from the risk that a counterparty is unable to meet its payment obligations to PNC under certain financial contracts. PNC aggregates a counterparty's exposures for all transactions involving derivatives and repurchase agreements. For further information on PNC's use of derivatives, refer to Note 9 Financial Derivatives in our March 31, 2019 Form 10-Q.

A primary responsibility of credit risk management is the approval of new counterparty trading relationships and the subsequent ongoing review of the creditworthiness of the counterparty. The credit risk associated with derivatives executed with customers is essentially the same as that involved in extending loans and is subject to normal credit policies. See the Credit Risk section within this Pillar 3 Report for further discussion of our credit policies. In addition to using master netting agreements and other collateral agreements to reduce credit risk associated with derivative instruments, we also seek to manage credit risk by evaluating credit ratings of counterparties and by using internal credit analysis, limits, and monitoring procedures. Credit risk is included in the determination of the estimated net fair value of our derivatives.

Credit limits are typically set on a loan equivalent exposure basis and credit exposures and limits are monitored daily.

For further information on counterparty credit risk, including counterparty and transaction rating, credit approval process and provisioning and for the notional amount of our derivatives, see Note 9 Financial Derivatives in our March 31, 2019 Form 10-Q.

Counterparty Credit Risk Mitigation

Credit risk from derivatives is mitigated, where possible, through master netting agreements whereby derivative assets and liabilities with the same counterparty can be offset. The International Swaps and Derivatives Association, Inc. (ISDA) Master Agreement is PNC's preferred agreement for documenting over-the-counter (OTC) derivatives. It provides the contractual framework within which dealing activities across a full range of OTC products are conducted and contractually binds both parties to apply close-out netting across all outstanding transactions covered by such master netting agreement if either party defaults or other termination events occur. There are certain instances in which we use customized agreements in lieu of an ISDA Master Agreement; however, these agreements include closeout netting language to protect PNC in a similar manner as the ISDA Master Agreement.

Repurchase and resale agreements are typically entered into with counterparties under industry standard master netting agreements which provide for the right to offset amounts owed to one another with respect to multiple repurchase and resale agreements under such master netting agreement (referred to as netting arrangements) and liquidate the purchased or borrowed securities in the event of counterparty default. In order for an arrangement to be eligible for netting under GAAP, we must obtain the requisite assurance that the offsetting rights included in the master netting agreement would be legally enforceable in the event of bankruptcy, insolvency, or a similar proceeding of such third party. Enforceability is evidenced by obtaining a legal opinion that supports, with sufficient confidence, the enforceability of the master netting agreement in bankruptcy.

Collateral

PNC may obtain collateral against derivative assets, depending on the creditworthiness of the counterparty and/or nature of the transaction. All marketable transactions and associated collateral positions are independently revalued and monitored daily. Collateral thresholds vary by counterparty. The majority of collateral held as credit risk mitigation is either cash, U.S. Treasury, or Government agency securities.

With respect to repurchase and resale agreements, PNC takes possession of securities purchased under agreements to resell. We monitor the market value of securities to be repurchased and resold and additional collateral may be obtained where considered appropriate to protect against credit exposure.

Certain derivative agreements contain various credit-risk related contingent provisions, such as those that require PNC's debt to maintain a specified credit rating from one or more of the major credit rating agencies. For additional information on the potential impact of an investment rating downgrade, see the Offsetting, Counterparty Credit Risk and Contingent Features section of Note 9 Financial Derivatives in our March 31, 2019 Form 10-Q.

Further detail regarding the net unsecured credit exposure on our derivatives and other contracts is presented in the following table:

Table 4: Counterparty Credit Risk Exposures

March 31, 2019								
In millions	Gross Positive Fair Value		Collateral Held	Net Unsecured Credit Exposure	Credit Equivalent Amount			
OTC derivatives	\$	5,614	\$	1,320	\$	3,637	\$	3,643
Repo-style transactions	\$	2,309	\$	2,267	\$	45	\$	126

SECURITIZATION

The Basel III rules define a securitization exposure as an exposure that meets the following criteria:

- All or a portion of the credit risk of one or more underlying exposures is transferred to one or more third parties;
- The credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority;
- Performance of the securitization depends on performance of the underlying exposures;
- All or substantially all of the underlying exposures are financial exposures;
- The underlying exposures are not owned by an operating company; and
- The underlying exposures are not owned by a small business investment company or related to a community development investment.

Generally, PNC does not securitize its own assets but does have multiple asset types meeting the definition of securitization exposure, which are primarily secured lending and investment positions. See the Credit Risk section within this report for further discussion of our credit policies. The following activities meet the regulatory definition of a securitization:

- Investment securities that meet the definition of a securitization exposure including asset-backed securities, commercial and residential mortgage-backed securities, and collateralized loan obligations;
- Secured lending to our clients consisting of collateralized loan obligations and securitizations of trade receivables, auto loan and lease assets, equipment leases, fleet leases, and capital commitments;
- Servicing advances to transactions including commercial and residential mortgage-backed securities;
- Subscription line facilities to real estate investment funds secured by the capital commitments of the funds' investors; and
- OTC derivatives to special purpose entities.

For a description of the roles that PNC plays in the securitization process, refer to Note 2 Loan Sale and Servicing Activities and Variable Interest Entities in our 2018 Form 10-K.

Summary of Accounting Policies for Securitization Activities

A summary of PNC's accounting policies for securitization activities is outlined in Note 1 Accounting Policies and in Note 2 Loan Sale and Servicing Activities and Variable Interest Entities in our 2018 Form 10-K.

Risk Management

The Securitization Committee, which is a sub-committee of PNC's Basel Compliance Committee, provides governance over the identification and categorization of securitization exposures. Each line of business with securitization exposure submits a quarterly reporting package to the Securitization Committee that includes a summary of securitization exposures attributable to their business, the associated capital requirements and the status of associated controls.

For further information on how we use derivatives to mitigate risk associated with changes in the fair value of assets, see Note 13 Financial Derivatives in our 2018 Form 10-K. Information on how we monitor and evaluate changes in credit can be found in Note 3 Asset Quality and Note 5 Investment Securities in our March 31, 2019 Form 10-Q.

The following table presents our total on- and off-balance sheet securitization exposures:

Table 5: Securitization Exposures by Underlying Asset Type

In millions	March 31, 2019		
	On-Balance Sheet Amount	Off-Balance Sheet Amount (a)	Total Exposure
Residential mortgage-backed securities	\$ 2,274	\$	2,274
Commercial mortgage-backed securities	3,304		3,304
Asset-backed securities	5,790		5,790
State and municipal securities	161		161
Total securities	\$ 11,529	\$	11,529
Loans	\$ 14,244	\$ 7,606	\$ 21,850
Other assets (b)	410	105	515
Total	\$ 26,183	\$ 7,711	\$ 33,894

(a) Primarily unfunded commitments to extend credit.

(b) Includes accrued interest on securitization exposures.

Regulatory Treatment of Securitizations

The standardized approach requires banks to use either the Simplified Supervisory Formula Approach (SSFA) or assign a 1250% risk-weight to determine regulatory capital for securitization exposures. The total exposure includes the aggregate of all on- and off-balance sheet exposures.

The following table outlines our securitization exposures, the related risk-weighted amount and capital requirement:

Table 6: Capital Requirements of Securitization Exposures by Risk-Weighting (a)

In millions	March 31, 2019			
	Risk-Weight Bands	Total Exposure	Risk-Weighted Amount	Capital Requirement (b)
Simplified Supervisory Formula Approach (SSFA)				
=20%	\$	29,735	\$ 5,947	\$ 476
> 20% and <= 100%		1,940	666	53
> 100% and <= 650%		2,198	4,921	393
> 650% and <1250%		5	50	4
=1250%		13	161	13
Non-Simplified Supervisory Formula Approach (Non-SSFA)				
=1250%		3	36	3
Total	\$	33,894	\$ 11,781	\$ 942

(a) Includes total resecuritization exposures of \$39 million with a risk-weighted amount and capital requirement of \$238 million and \$19 million, respectively.

(b) Capital requirement is calculated as 8% of risk-weighted assets.

EQUITIES NOT SUBJECT TO THE MARKET RISK RULE

Equity investment risk is the risk of potential losses associated with investing in both private and public equity markets. Equity investments include investments in unconsolidated subsidiaries, equity and other investments classified within other assets and fund investments that, in each case, are not a covered position for purposes of the Market Risk Rule nor a securitization exposure.

Various PNC business units manage our equity and other investment activities and are responsible for making investment decisions within the approved policy limits and associated guidelines. PNC has established enterprise-wide policies and methodologies to identify, measure, monitor and report various types of market risk, including equity investment risk. Market Risk Management provides independent oversight by monitoring compliance with established guidelines and reporting significant risks in the business to the Risk Committee of the Board of Directors. All exposures and corresponding risk-weighted assets are monitored and reported to senior level management committees, including the Basel Compliance Committee and the Executive Capital Committee, on at least a quarterly basis.

For additional details on the management of equity investment risk, see the Market Risk Management section in Part II, Item 7 of our 2018 Form 10-K. For additional information on valuation and accounting, see Note 6 Fair Value in our March 31, 2019 Form 10-Q and 2018 Form 10-K and Note 1 Accounting Policies in our 2018 Form 10-K.

Summary of Equity Investment Exposures

PNC holds the following equity investments that do not meet the qualifications of a covered position under the Market Risk Rule and are not a securitization exposure. Private equity investments are held primarily for capital appreciation purposes. Other equity and investment fund positions are held primarily for reasons other than capital gains, including strategic purposes. Our significant equity exposures include the following investments:

- BlackRock – see Business Segments Review in our March 31, 2019 Form 10-Q and 2018 Form 10-K for additional information about our BlackRock investment.
- Tax Credit Investments – see Note 2 Loan Sale and Servicing Activities and Variable Interest Entities in our March 31, 2019 Form 10-Q and 2018 Form 10-K for further information on tax credit investments.
- Private Equity – see the Market Risk Management section of our March 31, 2019 Form 10-Q and 2018 Form 10-K for more information on private equity investments.
- VISA – see the Market Risk Management section of our March 31, 2019 Form 10-Q and 2018 Form 10-K for more information on our VISA investment.
- Bank Owned/Company Owned Life Insurance policies that are considered investment funds and qualify as equity exposures under the regulatory capital framework.
- Federal Home Loan Bank and Federal Reserve Bank stock, which are considered equity exposures under the regulatory capital framework.

The following tables outline the book and fair values of investments that do not qualify as covered positions:

Table 7: Book Value and Fair Value of Equity Exposures Not Subject to Market Risk Rule

In millions Equity Exposures	March 31, 2019			
		Book Value		Fair Value
Publicly traded (a)	\$	7,851	\$	15,374
Non-publicly traded		7,846		7,828
Total	\$	15,697	\$	23,202

(a) Publicly traded consists primarily of investments in BlackRock.

There were no unrealized gains/(losses) related to equity exposures included in Tier 1 or Tier 2 capital as of March 31, 2019. Realized gains/(losses) from sales and liquidations of equity exposures were \$88 million for the three months ended March 31, 2019.

Latent revaluation gains/(losses) are unrealized gains/(losses) on non-public equity investments that are recorded at cost. Such unrealized gains/(losses) are not recognized in the income statement or through accumulated other comprehensive income. Latent revaluation gains, all on our investment in VISA shares, were \$893 million at March 31, 2019.

PNC uses the Simple Risk Weight Approach (SRWA) for its equity investments and either the Simple Modified Look Through Approach (SMLTA) or the Alternative Modified Look Through Approach (AMLTA) for certain investment funds. The following table outlines the capital requirements of equity investment exposures by risk-weighting:

Table 8: Capital Requirements of Equity Investment Exposures by Risk-Weighting

In millions	March 31, 2019		
	Exposure Balance	Risk-Weighted Assets (a)	Capital Requirement (b)
Simple Risk Weight Approach (SRWA)			
0% Risk Weight	\$ 858	—	—
20% Risk Weight	961	\$ 192	\$ 15
100% Risk Weight	2,741	2,741	220
250% Risk Weight (c)	4,188	10,469	838
600% Risk Weight	167	1,004	80
Sub-Total SRWA Equity Exposures	\$ 8,915	\$ 14,406	\$ 1,153
Simple Modified Look Through Approach (SMLTA)	178	711	56
Alternative Modified Look Through Approach (AMLTA)	2,856	1,814	145
Total	\$ 11,949	\$ 16,931	\$ 1,354

(a) Includes both on- and off-balance sheet amounts.

(b) Capital requirement is calculated as 8% of risk-weighted assets.

(c) Includes significant investments in unconsolidated financial institutions in the form of common stock, which are not deducted from Common Equity Tier 1.

MARKET RISK CAPITAL

The U.S. banking agencies' market risk capital rules define the types of positions that are subject to the market risk capital framework (referred to as "covered positions"). Covered positions are generally defined as those positions that are held (i) for the purpose of short-term resale, (ii) with the intent of benefiting from actual or expected short-term price movements, (iii) to lock in arbitrage profits, or (iv) in order to hedge any of these types of positions. In addition, subject to certain exceptions, foreign exchange and commodity positions are considered covered positions. Characterization of a position as "trading" for purposes of GAAP is not on its own sufficient to classify the position as a covered position. As a result, certain positions classified as trading under GAAP for our financial statement presentation are not subject to the regulatory market risk capital framework.

Our covered positions primarily arise from the underwriting, investing and risk management services we provide to our customers and associated market risk mitigating hedge activities. Our covered positions are measured and reported in our financial statements at fair value. The products that make up our covered positions are primarily fixed income securities, interest rate derivatives and foreign exchange derivatives. The fixed income securities include mortgage-backed securities and municipal securities. Interest rate derivatives include interest rate swaps, swaptions, caps and floors.

Governance of Covered Positions

PNC has established a Covered Position Working Group to provide governance over the identification of covered positions, including reviewing our compliance with policies governing management of covered positions. The Covered Positions Working Group is composed of representatives from the areas of business, risk and finance, and is subject to oversight by the Basel Compliance Committee.

Valuation Policies, Procedures & Methodologies

For details regarding our valuation policies, procedures, and methodologies, please see Note 6 Fair Value in our March 31, 2019 Form 10-Q and in our 2018 Form 10-K. For details regarding the risks associated with our valuation policies, procedures, and methodologies, please see Item 1A Risk Factors in our 2018 Form 10-K.

Value at Risk (VaR) Models

Our primary metrics used to measure the market risk of our covered position activity are Value at Risk (VaR) and Stressed VaR (sVaR). VaR is a statistically-based measure of risk that estimates the amount of potential loss that may be incurred due to adverse market movements. The measure is of the maximum loss that should not be exceeded on 99 out of 100 days for a 99% VaR. Market Risk Management (MRM) performs a VaR and sVaR calculation on a daily basis using a historical VaR methodology. 10-day VaR and sVaR are calculated at the 99% confidence interval by converting from corresponding daily measures while accounting for autocorrelation and mean-reversion. VaR is calculated using a look-back period of 500 days with market data and sensitivities updated daily, while sVaR is computed based on a 250-day period of significant stress (Stress Period) which remains constant through the quarter. The chosen Stress Period is designed to capture the buildup of volatility and profit and loss (P&L) distribution widening. The selected 250-day stress period is monitored by MRM and is updated quarterly. The models used to measure VaR and sVaR take

into account the following key market risk factors: interest rates, credit spreads, foreign exchange rates, mortgage rate basis, and implied interest rate and foreign exchange volatilities.

For the three months ended March 31, 2019, our VaR and sVaR metrics were as follows:

Table 9: VaR-Based Metrics (a)

March 31, 2019							
In millions	Credit Spread Risk		Interest Rate Risk		Foreign Exchange Risk		Overall Portfolio
Min VaR (b)	\$	0.8	\$	0.4	\$	0.5	\$ 1.9
Max VaR (b)	\$	1.3	\$	0.8	\$	0.8	\$ 2.6
Average (Mean) VaR	\$	0.9	\$	0.6	\$	0.7	\$ 2.2
Period End VaR	\$	0.9	\$	0.5	\$	0.7	\$ 2.1
Min SVaR (b)	\$	3.5	\$	1.2	\$	3.0	\$ 9.1
Max SVaR (b)	\$	8.9	\$	6.4	\$	6.1	\$ 15.9
Average (Mean) SVaR	\$	5.3	\$	2.7	\$	4.3	\$ 12.3
Period End SVaR	\$	5.5	\$	4.0	\$	4.2	\$ 13.7

(a) There were no covered positions subject to equity price risk for the three months ended March 31, 2019.

(b) The minimum and maximum for the overall portfolio may have occurred on different trading days than the minimum and maximum for the individual components. Thus, the minimum and maximum for the overall portfolio will not equal the sum of the individual components.

For calculating market risk regulatory capital, daily VaRs assume a zero diversification benefit. We use the standardized measurement method, as defined by the Market Risk Rule, to determine the specific risk charge for our covered positions and therefore we are not required to calculate and hold incremental risk capital. In addition, our trading policies do not permit the conduct of correlation trading. Therefore, we are not required to calculate and hold comprehensive risk capital for our covered positions.

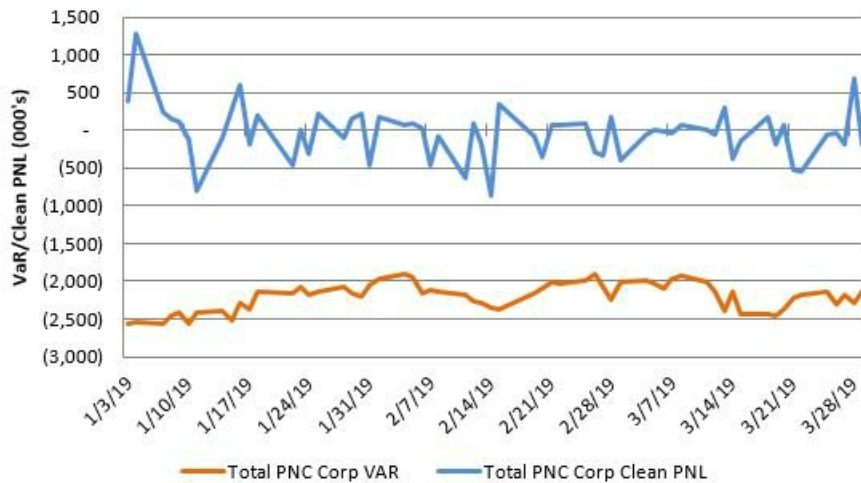
Back Testing

To help ensure the integrity of the models used to calculate VaR for our portfolio of covered positions, we use a back testing process, which consists of comparing actual observations of gains or losses against the VaR levels that were calculated at the close of the prior day. Actual gains and losses for these purposes is calculated by holding end-of-day positions constant, and excludes fees, commissions, reserves, net interest income, income from customer transactions and intraday trading in order to isolate the impact of market price changes on end-of-day positions. Because of these adjustments, actual gains or losses for purposes of back testing is also referred to as “Clean P&L.”

We utilize a variety of market risk measures to monitor covered activities, as identified within our MRM policies and utilize the same measures to identify significant outliers. Model owners assess the results of the back testing to verify that the models are performing as expected. In addition, model owners monitor PNC’s sensitivity to changes in market risk factors on a daily basis.

The following graph shows a comparison of actual gains and losses against prior-day non-diversified VaR for the period. During the first quarter 2019 there were no back testing exceptions for our overall portfolio of covered positions.

Total PNC Corporation VaR Back Testing



Model Validation

The Model Risk Management Group performs independent validations to evaluate the conceptual framework used by the VaR and sVaR models (e.g., historical simulation), the assumptions underlying the models, the sufficiency and completeness of the risk factors identified as key risk drivers, as well as the sufficiency and accuracy of the historical market data used in the models. Part of the evaluation considers the approach used in the VaR and sVaR calculations, assesses the parameters used in the models, the accuracy of estimated profit and loss amounts, as well as the extent to which they may be auto-correlated, and corresponding adjustments.

Stress Testing

MRM performs daily stress-testing of covered positions based on six different historical stress periods. Stress testing is different from VaR which estimates a potential one day loss in a normal market environment. It is designed to measure potential losses due to extreme market movements so it is an additional risk management tool that allows PNC to assess its market risk exposure relative to its risk appetite.

The stress tests employed use one-day market movements representative of market behavior during each of the historical stress periods. The P&L estimate for each scenario is treated as an instantaneous shock for each trading desk. We consider the following risk factors in performing our daily stress-testing: interest rates, credit spreads, foreign exchange rates, mortgage rate basis and implied interest rate volatility.

Securitization Positions

As of March 31, 2019, we had no material securitization positions that were covered positions under the Market Risk Rule. Information on securitization positions is shared with Market Risk Management monthly and balances are validated quarterly as part of the market risk capital charge calculation process. MRM uses the same VaR metrics as described within the Value at Risk (VaR) Models section of this report to monitor and measure changes to market risk daily in PNC's securitization positions.

As of March 31, 2019, we do not hold any covered positions that are re-securitization positions as defined by the Market Risk Rule, and our trading desks currently do not purchase credit protection for securitization positions.

INTEREST RATE RISK FOR NON-TRADING ACTIVITIES

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

For further information on interest rate risk, including an interest sensitivity analysis, see Market Risk Management - Interest Rate Risk in the Risk Management section in Part I, Item 2 of our March 31, 2019 Form 10-Q.

GLOSSARY OF TERMS

This Glossary defines terms related to the Pillar 3 Report. For additional definitions of terms, refer to the Glossary in our 2018 Form 10-K.

Alternative Modified Look Through Approach (AMLT) – Under this approach, a banking organization assigns the adjusted carrying value of an equity exposure to an investment fund on a pro rata basis to different risk weight categories based on the investment limits described in the fund’s prospectus. The banking organization’s risk-weighted asset amount is the sum of each portion of the adjusted carrying value assigned to an exposure type multiplied by the applicable risk weight. For purposes of the calculation the banking organization must assume the fund is invested in assets with the highest risk weight permitted by its prospectus and to the maximum amounts permitted.

Covered Position – The Market Risk Rule defines the types of positions that are subject to the market risk capital framework (referred to as “covered positions”). Covered positions are generally defined as those positions that are held (i) for the purpose of short-term resale, (ii) with the intent of benefiting from actual or expected short-term price movements, (iii) to lock in arbitrage profits, or (iv) in order to hedge any of these types of positions. In addition, subject to certain exceptions, foreign exchange and commodity positions are considered covered positions.

Credit Equivalent Amount – Carrying value (including net accrued but unpaid interest and fees) for the exposure or segment less any allocated transfer risk reserve for the exposure or segment for on-balance sheet exposures. For off-balance sheet exposures, credit equivalent amount is the best estimate of net additions to the outstanding amount owed the bank, including estimated future additional draws of principal and accrued but unpaid interest and fees, that are likely to occur over a one-year horizon assuming default, and potential future exposure of derivative contracts. Certain counterparty exposure credit equivalent amounts can be reduced by recognizing the credit loss mitigation benefits of financial collateral securing the exposure.

High Volatility Commercial Real Estate (HVCRE) – A credit facility that finances or has financed the acquisition, development, or construction of real property.

Latent Revaluation Gains/(Losses) – Unrealized gains/(losses) on nonpublic equity investments that are recorded at cost. Such unrealized gains/(losses) are not recognized in the income statement or through accumulated other comprehensive income.

Simple Modified Look Through Approach (SMLT) – Under this approach, a banking organization multiplies the adjusted carrying value of its investment in a fund by the highest risk weight that applies to any exposure the fund is permitted to hold as described in the prospectus or fund documents.

Simple Risk Weight Approach (SRWA) – Under this approach, a banking organization would determine the risk-weighted asset amount for each equity exposure by multiplying the adjusted carrying value of the equity exposure by the lowest applicable risk weight permitted.

Simplified Supervisory Formula Approach (SSFA) – Under this approach, a banking organization takes into account the nature and quality of the underlying collateral when assigning a risk weight to a securitization exposure. It was designed to apply relatively higher capital requirements to the more risky junior tranches of a securitization that are the first to absorb losses and apply relatively lower requirements to the most senior positions.

Sovereign – A central government or agency, department, ministry, or central bank of a central government. A sovereign exposure is directly and unconditionally backed by the full faith and credit of a sovereign.