

# 2017 Annual Stress Test Disclosure

## Dodd-Frank Wall Street Reform and Consumer Protection Act

June 22, 2017



# Overview – 2017 Annual Stress Test

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- **In February 2017, the Federal Reserve Board (FRB) launched the 2017 Comprehensive Capital Analysis and Review (CCAR).**
  - Applies to 34 bank holding companies (BHCs), including Citigroup Inc. (Citi)
    - 6 BHCs with significant trading operations, including Citi, are required to apply a hypothetical Global Market Shock to trading, private equity and counterparty exposures.
    - 8 BHCs, including Citi, are subject to a Counterparty Default Scenario requirement and must include losses and related effects on capital from the default of their largest stressed counterparty.
- **Citi's CCAR submission and these disclosures are also required by the Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA):**
  - Mandates annual stress testing under a set of supervisory scenarios provided by the FRB, including the Supervisory Severely Adverse Scenario (see next page).
  - Requires the FRB and BHCs participating in CCAR to publish a summary of stress test results, including a post stress capital analysis under the Supervisory Severely Adverse Scenario.
  - Sets forth a definition of “Dodd-Frank Capital Actions” to be used by the FRB and BHCs under the Supervisory Severely Adverse Scenario (see page 17).

*Citi's projections under the Supervisory Severely Adverse Scenario, as disclosed in this document or otherwise, should not be viewed or interpreted as forecasts of expected or likely outcomes for Citi. Rather, these projections are based solely on FRB's hypothetical Supervisory Severely Adverse Scenario and other specific conditions required to be assumed by Citi. These assumptions include, among others, the “Dodd-Frank Capital Actions” (see page 17), as well as modeling assumptions necessary to project and assess the impact of the Supervisory Severely Adverse Scenario on the results of operations and capital position of Citi.*

# Overview – Required Scenario

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- **As required by the DFA stress testing rules, the FRB provided a set of three hypothetical supervisory scenarios, including the Supervisory Severely Adverse Scenario.**
- The Supervisory Severely Adverse Scenario, the most severe of the three supervisory scenarios, is characterized by a severe global recession that is accompanied by a period of heightened stress in corporate loan markets and commercial real estate markets. In this scenario, the level of U.S. real GDP sharply declines, U.S. unemployment rate reaches 10 percent and asset prices in the U.S. drop sharply.
  - The international component of the scenario features severe recessions in the euro area, the United Kingdom and Japan as well as a slow down in developing Asia.
  - Reflecting flight-to-safety capital flows associated with the scenario's global recession, the U.S. dollar is assumed to appreciate strongly against the euro, the pound sterling and the currencies of developing Asia.
  - Further description of the scenario can be found in the publication [2017 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule](#).

# Pro Forma Projections

The tables below summarize Citi's pro forma estimated results under the Supervisory Severely Adverse Scenario using Dodd-Frank Capital Actions\*:

Actual Q4 2016 and Projected Capital Ratios through Q1 2019 (Percent)	Actual	Stressed Capital Ratios	
	Q4 2016	Q1 2019	Minimum <sup>1</sup>
Common Equity Tier 1 Capital Ratio	14.9	10.2	10.0
Tier 1 Risk-Based Capital Ratio	15.8	11.9	11.7
Total Risk-based Capital Ratio	19.1	15.3	15.1
Tier 1 Leverage Ratio	10.1	7.9	7.8
Supplementary Leverage Ratio <sup>2</sup>	7.2	6.0	5.9

1. Minimum reflects the lowest value for each ratio over the 9 quarter forecast horizon for the period Q1 2017 to Q1 2019.

2. The CCAR 2017 planning horizon includes the initial compliance date for the supplementary leverage ratio and advanced approach BHCs must demonstrate conformance in the quarters of the planning horizon corresponding to Q1 2018–Q1 2019.

Projected Cumulative 9Q Loan Losses, by Type of Loan, through Q1 2019	9Q Total	Portfolio Loss Rates (%)
	\$ in billions	
First Lien Mortgages, Domestic	0.6	0.8%
Junior Liens and HELOCs, Domestic	1.1	7.5%
Commercial & Industrial	5.2	3.6%
Commercial Real Estate, Domestic	0.7	4.4%
Credit Cards	21.3	15.2%
Other Consumer	3.0	13.7%
Other Loans	2.4	1.5%
<b>Total Projected Loan Losses</b>	<b>34.3</b>	<b>6.0%</b>

Actual Q4 2016 and Projected Q1 2019 Risk-weighted Assets \$ in billions	Actual	Stressed Risk Weighted Assets
	Q4 2016	Q1 2019
Basel III Risk-Weighted Assets <sup>1</sup>	1,126	1,056

1. Risk-weighted assets are calculated under the Basel III standardized capital risk-based approach.

Projected Cumulative Losses, Revenue, and Net Income Before Taxes through Q1 2019	9Q Total	Percent of Average Assets
	\$ in billions	
Pre-Provision Net Revenue	32.4	1.9%
Other Revenue	-	
<i>Less</i>		
Provisions	42.4	
Realized Losses/Gains on Securities (AFS/HTM)	1.3	
Trading and Counterparty Losses	8.3	
Other Losses/Gains	2.2	
<i>Equals</i>		
Net Income/(Loss) Before Taxes	(21.8)	-1.3%
<b>Memo Items</b>		
Other comprehensive income	(7.1)	
<i>Other effects on capital</i>	Q4 2016	Q1 2019
AOCI included in capital (billions of dollars)	(29.4)	(39.7)

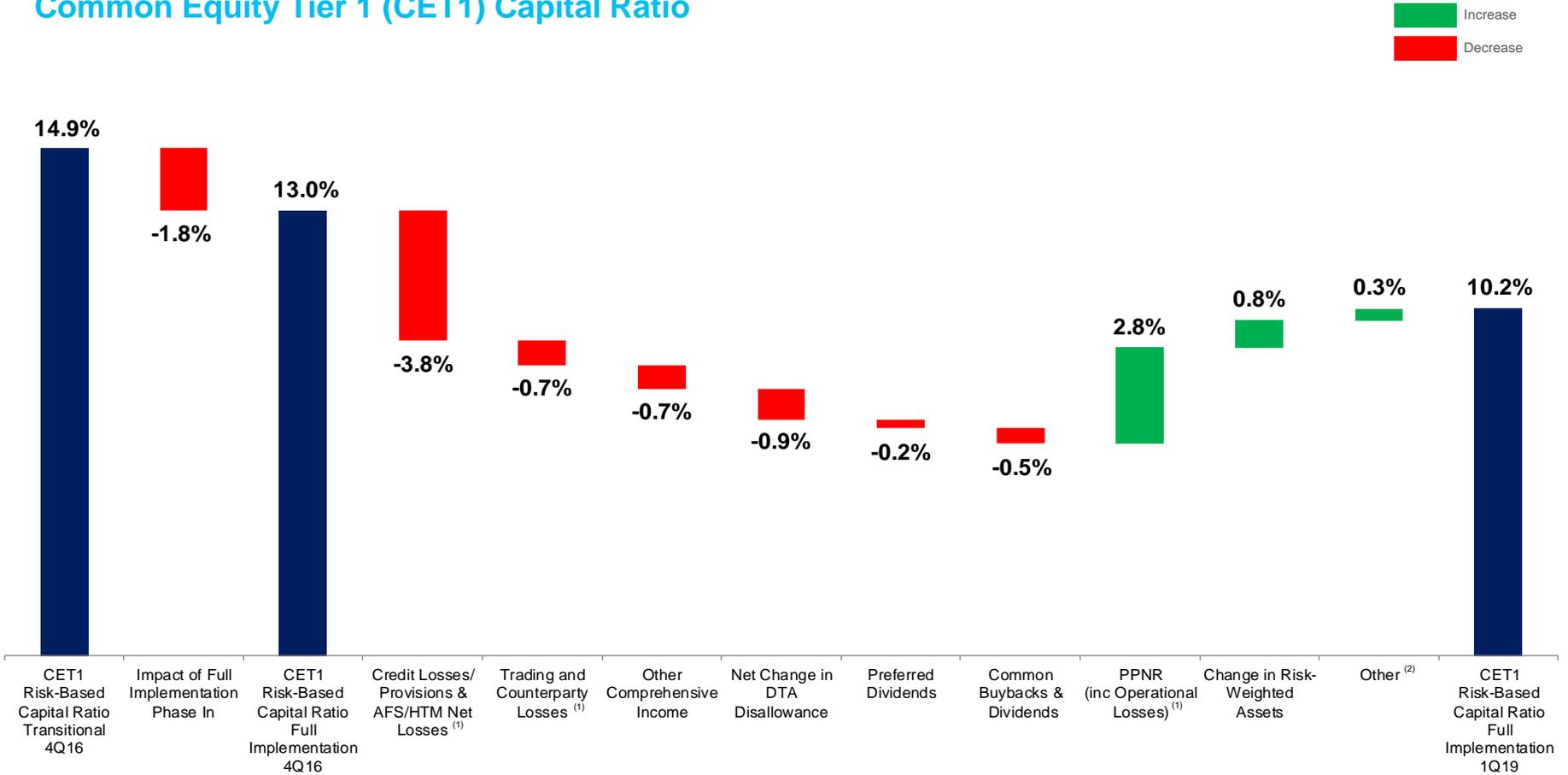
\*See page 17

These projections represent hypothetical estimates based on Citi's Severely Adverse Scenario with Dodd-Frank Capital Actions. These estimates are not forecasts of Citi's expected pre-provision net revenues, losses, net income before taxes, planned capital actions, risk-weighted assets, or pro forma capital ratios.

# Key Drivers of Common Equity Tier 1 Capital Ratio

(4Q16-1Q19; Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions)

## Common Equity Tier 1 (CET1) Capital Ratio



**Note:** These projections represent hypothetical estimates based on the Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions. These estimates are not forecasts of Citi's expected pro forma capital ratios.

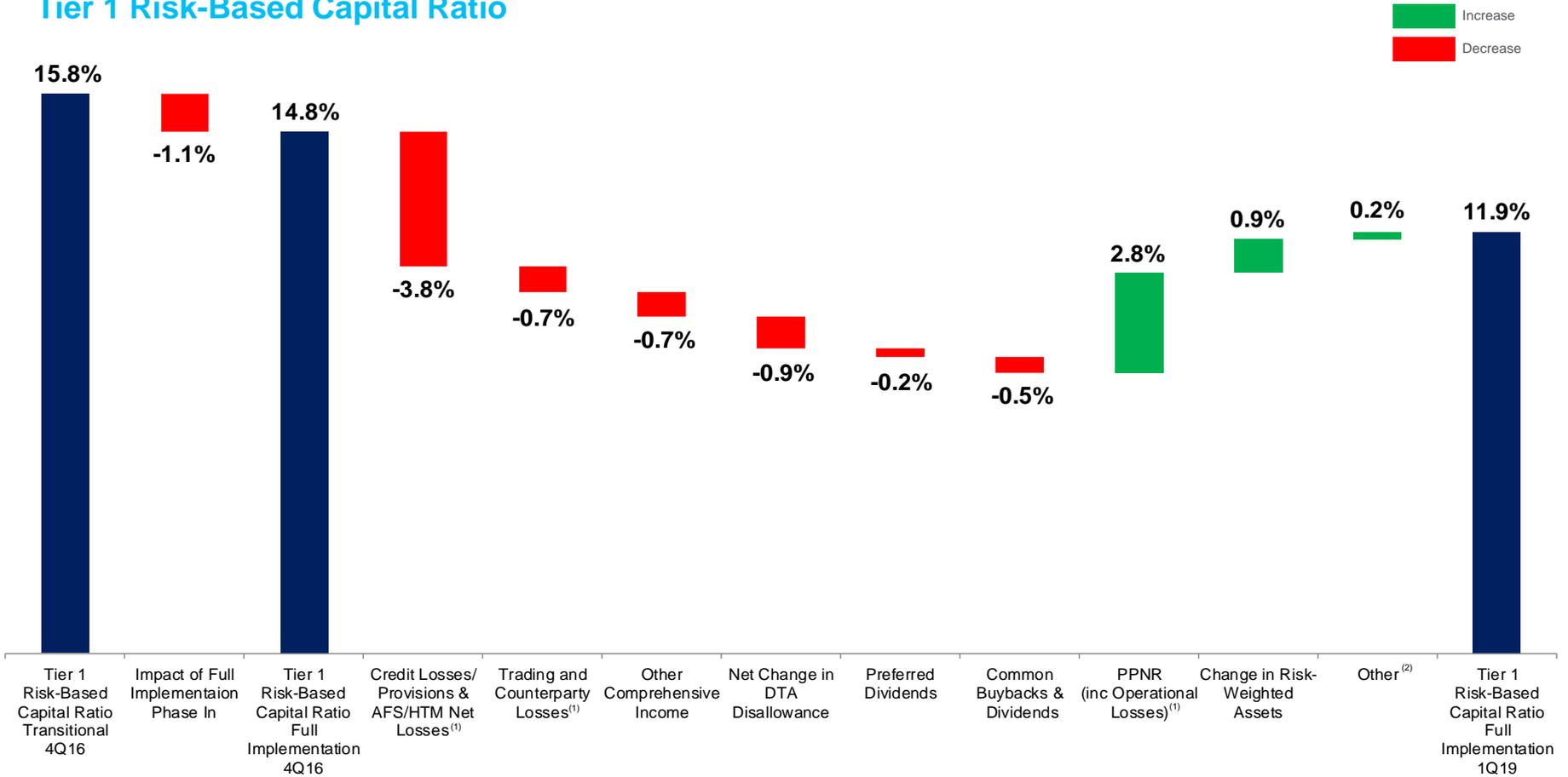
(1) Reflects pre-tax impact.

(2) Other includes impacts due to (i) losses from loans held-for-sale and loans accounted for under the fair value option, (ii) goodwill & intangibles amortization, (iii) issuance of employee stock compensation, (iv) accrued taxes, and (v) other income statement, and capital items.

# Key Drivers of Tier 1 Risk-Based Capital Ratio

(4Q16-1Q19; Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions)

## Tier 1 Risk-Based Capital Ratio



**Note:** These projections represent hypothetical estimates based on the Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions. These estimates are not forecasts of Citi's expected pro forma capital ratios.

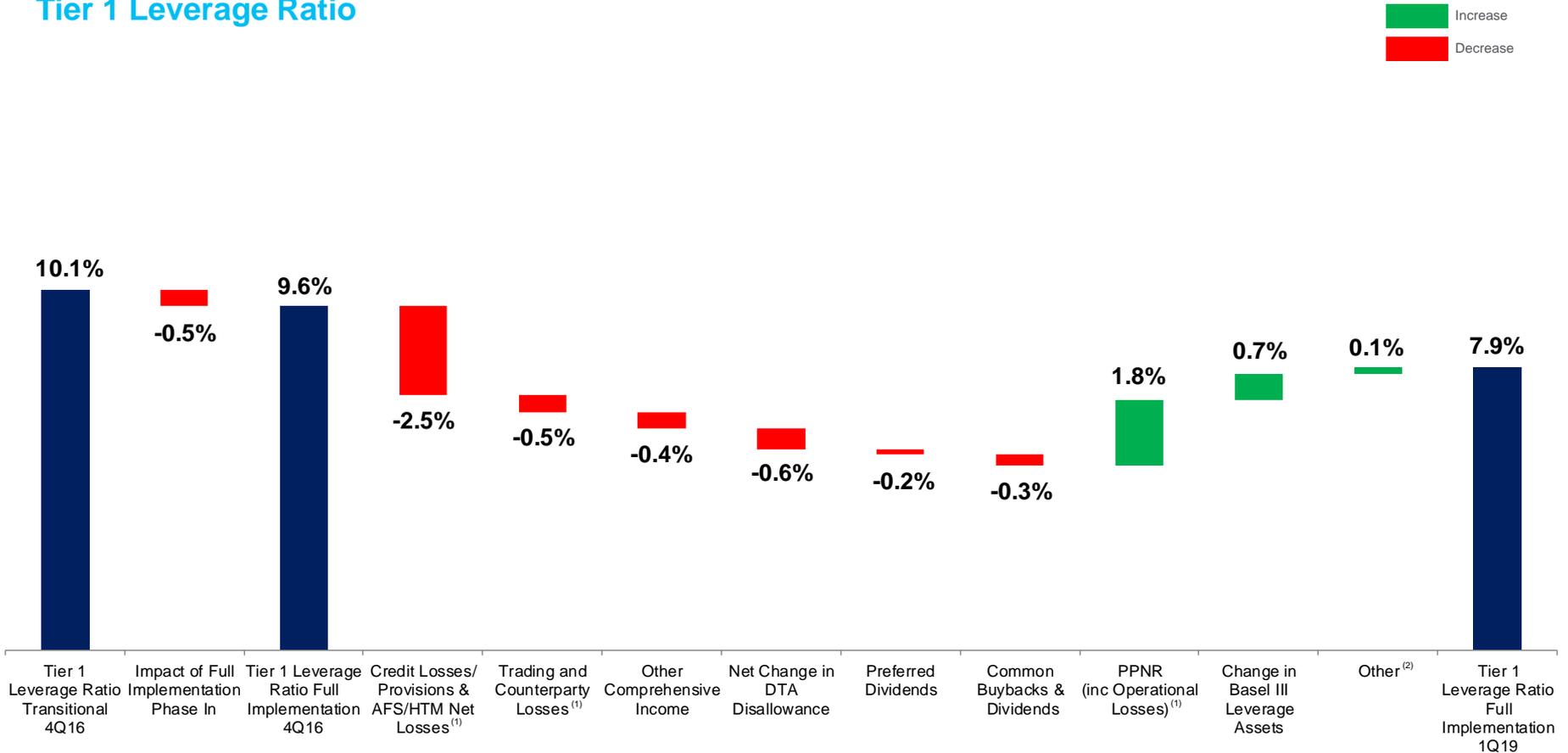
(1) Reflects pre-tax impact.

(2) Other includes impacts due to (i) losses from loans held-for-sale and loans accounted for under the fair value option, (ii) goodwill & intangibles amortization, (iii) issuance of employee stock compensation, (iv) accrued taxes, and (v) other income statement, and capital items.

# Key Drivers of Tier 1 Leverage Ratio

(4Q16-1Q19; Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions)

## Tier 1 Leverage Ratio



**Note:** These projections represent hypothetical estimates based on the Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions. These estimates are not forecasts of Citi's expected pro forma capital ratios.

(1) Reflects pre-tax impact.

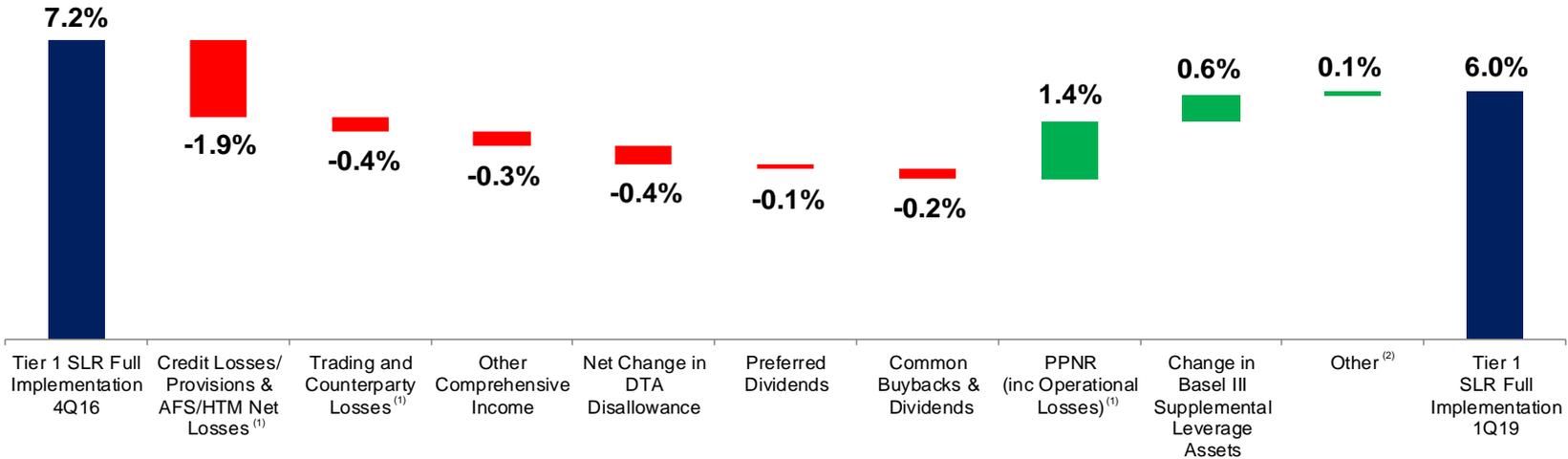
(2) Other includes impacts due to (i) losses from loans held-for-sale and loans accounted for under the fair value option, (ii) goodwill & intangibles amortization, (iii) issuance of employee stock compensation, (iv) accrued taxes, and (v) other income statement, and capital items.

# Key Drivers of Supplementary Leverage Ratio

(4Q16-1Q19; Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions)

## Supplementary Leverage Ratio

■ Increase  
■ Decrease



**Note:** These projections represent hypothetical estimates based on the Supervisory Severely Adverse Scenario with Dodd-Frank Capital Actions. These estimates are not forecasts of Citi's expected pro forma capital ratios.

(1) Reflects pre-tax impact.

(2) Other includes impacts due to (i) losses from loans held-for-sale and loans accounted for under the fair value option, (ii) goodwill & intangibles amortization, (iii) issuance of employee stock compensation, (iv) accrued taxes, and (v) other income statement, and capital items.

# Risk Types & Methodologies



# Risks Included in 2017 Annual Stress Test (page 1 of 2)

Risk Type	Description	Components	Examples
<b>Credit Risk</b>	The potential for financial loss resulting from the failure of a borrower or counterparty to honor its financial or contractual obligations.	<ul style="list-style-type: none"> <li>Provision for Loan and Lease Losses</li> <li>Counterparty Losses and Counterparty Default Scenario</li> <li>Realized Gains / Losses on Securities</li> <li>Risk-Weighted Assets</li> </ul>	<ul style="list-style-type: none"> <li>Loan losses and allowance builds/releases</li> <li>Credit exposure to counterparties through capital markets transactions</li> <li>Credit-related other-than-temporary impairment for investment securities</li> <li>Credit Risk RWA (as described on page 16)</li> </ul>
<b>Market Risk</b>	The potential loss that arises from fluctuations in the market value of positions, resulting from changes in the associated underlying market risk factors.	<ul style="list-style-type: none"> <li>Pre-Provision Net Revenue</li> <li>Trading and Counterparty Losses</li> <li>Other Losses</li> <li>Risk-Weighted Assets</li> </ul>	<ul style="list-style-type: none"> <li>Impact of market prices and interest rates on components of revenues and expenses across all business segments</li> <li>Instantaneous revaluation of trading, private equity, and fair value exposures as well as incremental default risk (IDR) and credit valuation adjustment (CVA) losses under a global market shock scenario</li> <li>Quarterly revaluation of loans held-for-sale or under a fair value option</li> <li>Market Risk RWA (as described on page 16)</li> </ul>
<b>Operational Risk</b>	Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, systems, or from external events including litigation, reputation, and franchise risks.	<ul style="list-style-type: none"> <li>Pre-Provision Net Revenue</li> </ul>	<ul style="list-style-type: none"> <li>Recurring events—i.e., low severity, relatively stable and predictable loss forecasts (example: credit card fraud events or processing errors)</li> <li>Idiosyncratic events—i.e., low frequency/high severity losses, which often are the result of unique circumstances and bear minimal statistical relationship to macro scenario conditions (examples: cyber risk, rogue trader, retail sales practices, etc)</li> <li>Legal—mature events vs developing events</li> </ul>

- The following pages provide details for each forecast component, segmented by key modeling units (Business, Product, etc.) where applicable.

## Risks Included in 2017 Annual Stress Test (page 2 of 2)

Risk Type	Description	Components	Examples
<b>Funding &amp; Liquidity Risk</b>	The potential loss arising from the inability to access liquidity to meet all obligations as and when due	<ul style="list-style-type: none"> <li>• Pre-Provision Net Revenue</li> <li>• Trading and Counterparty Losses</li> <li>• Realized Gains / Losses on Securities</li> </ul>	<ul style="list-style-type: none"> <li>• Higher funding costs resulting from deposit run-off, or due to widening Corporate Treasury issuance spreads</li> <li>• Market shocks associated with secured financing transactions</li> <li>• Reduced ability to monetize securities holdings (constrained market capacity, discounted market prices) as firms with similar securities pools take similar actions under stress</li> </ul>
<b>Strategic Risk</b>	The potential loss arising from external competitive factors, or formulation of inappropriate strategic and/or action plans, including poor execution of such plans.	<ul style="list-style-type: none"> <li>• Pre-Provision Net Revenue</li> <li>• Provision for Loan and Lease Losses</li> <li>• DTA utilization</li> </ul>	<ul style="list-style-type: none"> <li>• Geopolitical events/tensions which result in lower PPNR (lower loan balances and investment spending, deposit outflows, etc), and higher losses</li> <li>• Higher compensation ratios (relative to revenue) assumed in stressed environments to retain top talent</li> <li>• DTA forecasts and planning measures consider the firm's expected profits and losses in each scenario and directly inform expected tax expenses and regulatory capital calculations</li> </ul>

- The following pages provide details for each forecast component, segmented by key modeling units (Business, Product, etc.) where applicable.

# Pre-Provision Net Revenue

- Pre-provision net revenue (PPNR) is defined as net interest income plus non-interest income less non-interest expense, which includes policyholder benefits and claims and operational risk expenses.
- PPNR is projected using models for each major business unit as shown below.
- Relies on historical relationships between loan/deposit balances, revenues, expenses, and relevant macroeconomic variables, adjusted by business management as appropriate.
- Operational risk expenses consider both recurring and idiosyncratic events, including legal losses.

Major Business Units	Global Consumer Banking (GCB)	Institutional Clients Group (ICG)	Corporate / Other
<b>Component Business Units</b>	<ul style="list-style-type: none"> <li>• North America Retail and Commercial Bank</li> <li>• North America Cards</li> <li>• North America Mortgage</li> <li>• Asia GCB (incl 5 EMEA markets)</li> <li>• Latin America GCB</li> </ul>	<ul style="list-style-type: none"> <li>• Global Markets</li> <li>• Global Banking</li> <li>• Private Bank</li> <li>• Treasury and Trade Solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Treasury</li> <li>• Operations &amp; Technology</li> <li>• Legacy non-core loans and portfolios</li> <li>• Global Functions</li> <li>• Other</li> </ul>
<b>Key Modeling Inputs</b>	<ul style="list-style-type: none"> <li>• GDP</li> <li>• Housing</li> <li>• Inflation</li> <li>• Unemployment rate</li> <li>• Interest rates</li> <li>• Foreign exchange (FX) rates</li> </ul>	<ul style="list-style-type: none"> <li>• GDP</li> <li>• Market indices</li> <li>• Volatility</li> <li>• Interest rates</li> <li>• Purchasing Managers index</li> <li>• Corporate bond spreads</li> <li>• FX rates</li> </ul>	<ul style="list-style-type: none"> <li>• Non-regression models</li> <li>• Run-off models</li> </ul>
<b>Business Activities</b>	<ul style="list-style-type: none"> <li>• Retail, small business and commercial loans and deposits</li> <li>• Mortgages</li> <li>• Credit cards (Branded and Retail Services)</li> <li>• Wealth management</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate loans and deposits</li> <li>• Sales &amp; Trading</li> <li>• Investment banking</li> <li>• Private banking</li> <li>• Asset management</li> <li>• Transaction services</li> <li>• Security Services</li> </ul>	<ul style="list-style-type: none"> <li>• Non-customer facing cost centers</li> <li>• Non-core assets</li> </ul>

# Provisions for Loan and Lease Losses

- Loan losses are projected using product-specific models utilizing historical and expected relationships between credit performance and relevant macroeconomic variables.

Major Loan Products	Domestic Mortgages	Commercial & Industrial and Commercial Real Estate	Credit Cards	Other Consumer	Other Loans
<b>Loan Types</b>	<ul style="list-style-type: none"> <li>• Includes first and junior liens; closed-end and revolving</li> </ul>	<ul style="list-style-type: none"> <li>• Includes Commercial &amp; Industrial (C&amp;I) loans to obligors globally and domestic</li> <li>• Commercial Real Estate (CRE) loans</li> </ul>	<ul style="list-style-type: none"> <li>• Includes bank and charge cards both domestically and internationally</li> </ul>	<ul style="list-style-type: none"> <li>• Includes global personal loans, student loans, auto loans, and other consumer loans</li> </ul>	<ul style="list-style-type: none"> <li>• Includes international real estate loans and a variety of non-retail loans</li> </ul>
<b>Key Modeling Inputs</b>	<ul style="list-style-type: none"> <li>• Home Price Index (HPI) (CBSA level)</li> <li>• Interest rates</li> <li>• Unemployment rate (state level)</li> </ul>	<ul style="list-style-type: none"> <li>• Obligor and facility risk characteristics</li> <li>• Multiple variables used for stress loss models (i.e. local GDP)</li> <li>• C&amp;I is also sensitive to the industry, product, and geography segmentation</li> <li>• CRE variables include unemployment, interest rates, and HPI</li> </ul>	<ul style="list-style-type: none"> <li>• Vintage</li> <li>• Credit score</li> <li>• Geography</li> <li>• Unemployment rate (state level)</li> <li>• GDP</li> </ul>	<ul style="list-style-type: none"> <li>• Product type</li> <li>• Geography</li> <li>• Unemployment rate</li> <li>• GDP</li> </ul>	<ul style="list-style-type: none"> <li>• GDP</li> <li>• HPI</li> <li>• Interest rates</li> <li>• Unemployment rate</li> </ul>
<b>Business Activities</b>	<ul style="list-style-type: none"> <li>• Domestic residential and home equity real estate portfolios in GCB, the Private Bank, and Corporate/Other</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate and commercial loan and commercial real estate exposures in ICG, Private Bank, and Commercial Bank</li> </ul>	<ul style="list-style-type: none"> <li>• North America cards (Citi-Branded and Retail Services)</li> <li>• Consumer and corporate credit card lending globally</li> </ul>	<ul style="list-style-type: none"> <li>• Includes portions of legacy portfolios in Corporate/Other, as well as personal loans in Mexico and Asia GCB</li> </ul>	<ul style="list-style-type: none"> <li>• International residential real estate in GCB, the Private Bank and Corporate/Other</li> <li>• International commercial real estate and other loans in Commercial Bank and ICG</li> </ul>

# Trading and Counterparty Losses

- Trading and counterparty losses represent instantaneous losses under a global market shock scenario on Citi's trading portfolios, CVA, FVA and other mark-to-market assets, inclusive of default losses.
- Consistent with FRB instructions, these instantaneous losses are reported in the first quarter of the projection period (1Q17) with no associated change to risk-weighted assets, GAAP assets, or PPNR.

Trading / Counterparty Activities	Trading Book	Counterparty Credit Risk (CCR)	Incremental Default Risk (IDR)
<b>Risk Types</b>	<ul style="list-style-type: none"> <li>• Equity, FX, interest rates, commodities, securitized products, traded credit, private equity, CVA hedges, other fair value assets</li> </ul>	<ul style="list-style-type: none"> <li>• Mark-to-market counterparty CVA and FVA for over-the-counter (OTC) derivative counterparties</li> <li>• CVA for all securities financing transaction (SFT) and central clearing parties (CCP) counterparties</li> </ul>	<ul style="list-style-type: none"> <li>• Trading IDR from securitized products and other credit sensitive instruments</li> <li>• Counterparty credit risk, reflected through the Counterparty Default Scenario</li> </ul>
<b>Key Modeling Inputs</b>	<ul style="list-style-type: none"> <li>• Equity spot and volatility</li> <li>• FX spot and volatility</li> <li>• Directional and basis rate risks</li> <li>• Interest rate volatility</li> <li>• Commodity spot and volatility</li> <li>• Agency and municipal spreads</li> <li>• Residential mortgage-backed securities, asset-backed securities, commercial mortgage-backed securities prices</li> <li>• Corporate and sovereign credit spreads for bonds and credit default swaps</li> <li>• Private equity carry values</li> </ul>	<ul style="list-style-type: none"> <li>• Equity spot and volatility</li> <li>• FX spot and volatility</li> <li>• Directional and basis rate risks</li> <li>• Interest rate volatility</li> <li>• Commodity spot and volatility</li> <li>• Agency and municipal spreads</li> <li>• Residential mortgage-backed securities, asset-backed securities, commercial mortgage-backed securities prices</li> <li>• Corporate and sovereign credit spreads for bonds and credit default swaps</li> </ul>	<ul style="list-style-type: none"> <li>• Probability of default and loss given default under stressed scenario</li> <li>• Jump-to-default exposure and risk rating by issuer</li> <li>• Bond, credit default swap, and equity losses under stressed scenario</li> </ul>
<b>Business Units</b>	<ul style="list-style-type: none"> <li>• Global Markets</li> <li>• Corporate Portfolio Management</li> <li>• Corporate/Other</li> </ul>	<ul style="list-style-type: none"> <li>• Global Consumer Banking</li> <li>• Treasury and Trade Services</li> <li>• Corporate/Other</li> <li>• Citi Treasury</li> </ul>	<ul style="list-style-type: none"> <li>• Global Markets</li> <li>• Corporate Portfolio Management</li> <li>• Corporate/Other</li> </ul>

# Realized Gains/Losses on Securities and Other Losses

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## Realized Gains/Losses on Investment Securities

- Citi holds available-for-sale (AFS) and held to maturity (HTM) securities in its Corporate Treasury portfolio as well as within other individual businesses.
- The inherent credit risk for most AFS and HTM securities is forecasted using product-specific cash flow models and tools which utilize a variety of macroeconomic factors (unemployment, GDP, HPI, etc.) depending on the security characteristics (including but not limited to country, collateral, and seniority).
- Loss estimates for the AFS and HTM portfolios are aligned to Citi's established accounting methodology.

## Other Comprehensive Income (OCI)

- OCI impacts primarily reflect changes to unhedged foreign currency book capital (ASC 830), OCI from cash flow hedges (ASC 815), OCI from AFS securities (ASC 320), and OCI associated with Citi's pension plans (ASC 715).
- The primary drivers for these categories are interest rates, credit spreads, mortality rates, actual plan returns versus expected returns, and foreign currency exchange rates.

## Other Losses/Gains

- Primarily reflects losses on loans which are held-for-sale (HFS) or under a fair value option (FVO).
  - Wholesale HFS and FVO loans are stressed using quarterly credit spreads to estimate changes in fair value. In addition, default losses are estimated using a ratings migration approach. Wholesale FVO loan hedges are subjected to similar methodologies to account for changes in value as well as obligor default, in line with regulatory guidance.
  - Retail held-for-sale loans are generally assumed to be sold, at a determined price, prior to sufficient deterioration in the macroeconomic environment; however, where appropriate, losses on HFS retail loans are included prior to execution of sale.
- Also reflects potential goodwill impairment under the hypothetical scenario along with losses related to investments under equity/cost accounting treatments.

# Risk-Weighted Assets (RWA)

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Citi projected its RWA using Basel III RWA methodologies. Consistent with FRB instructions, Basel III RWA under the Citi Severely Adverse Scenario was limited to only the Standardized Approach.

## Credit Risk RWA Projections

- Credit Risk RWA projections leverage Citi's point-in-time Basel calculations and infrastructure built for compliance with these rules. These projections are based on corresponding on- and off-balance sheet forecasts.
- Risk-weight projections utilize prescribed regulatory rules and also consider risk parameters conditioned upon relevant scenario variables. These parameters include loss forecasts, obligor ratings, risk profile shifts in future delinquencies, and forecasts of country risk classification.
- Past due balance projections utilized for RWA are consistent across balance sheet and stress loss projections.

## Market Risk RWA Projections

- Market Risk RWA forecasts depend upon whether the component is balance-driven or model-driven.
  - Balance-driven components include securitization and other exposures utilizing the standardized measurement method for specific risk.
  - Model-driven components include VaR and stressed VaR, Incremental Risk Capital and charges under Comprehensive Risk Measure.
- While balance-driven components are primarily driven by the corresponding balance projections, the model-driven components utilize quantitative methodologies that are scenario sensitive, capture changes in volatilities and test the sensitivity to changes in trading exposures.
- Securitization exposures follow similar RWA projection methodologies, irrespective of whether these positions reside in the trading book or banking book.

# Capital

In addition to the inclusion of estimated stress losses and PPNR, Citi's hypothetical capital position under the Supervisory Severely Adverse Scenario is impacted by the following items:

## Dodd-Frank Capital Actions

- As required by FRB rules, Dodd-Frank Capital Actions were included in Citi's stressed risk-based capital ratios through the 9-quarter forecast horizon in the following aggregate amounts:

Dodd-Frank Capital Actions for Citigroup	
Sources of Capital	Uses of Capital
<ul style="list-style-type: none"> <li>- Issuance of Common Stock for Employee Compensation: \$1.0B</li> <li>- 1Q17 Subordinated Debt Issuance: \$0.8B</li> </ul>	<ul style="list-style-type: none"> <li>- Common and Preferred Dividends: \$6.1B</li> <li>- 1Q17 Common Stock Buybacks: \$1.8B</li> <li>- Ordinary Payments on TruPS &amp; Subordinated Debt: \$3.1B</li> </ul>

## Transitional Capital Phase-in & Phase-out

- DTA and capital deductions are disallowed as defined under the Basel III Transition Arrangements.
- ASC 320/715 OCI neutralization phases out under the Basel III Transition Arrangements.
- After January 1, 2018, substantially all effects of the transitional rules will be fully implemented.

## Deferred Tax Asset (DTA) Position

- Due to Citi's current DTA position, future DTA accrual resulting from projected stress losses is limited; therefore, a portion of pre-tax stress losses results in a direct dollar-for-dollar reduction to net income.
- In the transitional capital calculations, to the extent that tax benefits can be realized in the stress scenarios, a portion of the benefits flows through to capital. These benefits, however, will be excluded when DTA and other capital deductions are fully phased-in.

## Other Items Impacting Capital Position

- Movements in OCI impact Citi's capital position, subject to the OCI neutralization phase-out noted above.
- Annual common stock awards from incentive compensation programs increase common equity, offset by compensation expense over the corresponding vesting period.

# Citibank, N.A Pro Forma Projections: Supervisory Severely Adverse Scenario



# Citibank, N.A. Stress Test Methodology

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- The Office of the Comptroller of the Currency (OCC) requires “covered institutions”, including Citibank, N.A. (CBNA), to conduct the Dodd-Frank Act Stress Test (DFAST).
  - For the 2017 DFAST, the OCC required the use of the same hypothetical Supervisory Severely Adverse Scenario and Supervisory Adverse Scenario as the FRB in CCAR, including the same Global Market Shock. The FRB and OCC Counterparty Default Scenarios used comparable methodologies, applied to the relevant exposures for Citigroup and CBNA.
- CBNA represents Citi’s primary subsidiary U.S. depository institution and accounted for approximately 75% of Citi’s overall GAAP assets as of 4Q16.
  - Capital ratio projections take into account the capital structure of CBNA<sup>1</sup> as well as CBNA-specific capital actions.
- CBNA used the same methodologies as used in Citi’s CCAR (PPNR, Stress Losses and Capital Position).
  - *See pages 10-16 for additional details on included risk types and stress testing methodologies.*

(1) CBNA’s capital structure varies in amount and form from Citi. For further details, please refer to CBNA’s quarterly Call Reports on Form FFIEC-031, available on Citi’s investor relations website.

# Pro Forma Projections

The tables below summarize CBNA's pro forma estimated results under the Supervisory Severely Adverse Scenario:

Actual Q4 2016 and Projected Capital Ratios through Q1 2019 (Percent)	Actual	Stressed Capital Ratios	
	Q4 2016	Q1 2019	Minimum <sup>1</sup>
Common Equity Tier 1 Capital Ratio	12.6	11.2	10.4
Tier 1 Risk-Based Capital Ratio	12.6	11.4	10.6
Total Risk-based Capital Ratio	15.0	13.9	13.1
Tier 1 Leverage Ratio	9.5	8.9	8.2
Supplementary Leverage Ratio <sup>2</sup>	6.8	6.5	5.9

1. Minimum reflects the lowest value for each ratio over the 9 quarter forecast horizon for the period Q1 2017 to Q1 2019.

2. The CCAR 2017 planning horizon includes the initial compliance date for the supplementary leverage ratio and advanced approach BHCs must demonstrate conformance in the quarters of the planning horizon corresponding to Q1 2018–Q1 2019.

Projected Cumulative 9Q Loan Losses, by Type of Loan, through Q1 2019	9Q Total	Portfolio Loss Rates (%)
	\$ in billions	
First Lien Mortgages, Domestic	0.6	0.8%
Junior Liens and HELOCs, Domestic	1.1	7.5%
Commercial & Industrial	4.9	3.6%
Commercial Real Estate, Domestic	0.6	4.1%
Credit Cards	20.2	14.8%
Other Consumer	2.1	11.3%
Other Loans	0.4	0.3%
<b>Total Projected Loan Losses</b>	<b>29.9</b>	<b>5.5%</b>

Actual Q4 2016 and Projected Q1 2019 Risk-weighted Assets \$ in billions	Actual	Stressed Risk Weighted Assets
	Q4 2016	Q1 2019
Basel III Risk-Weighted Assets <sup>1</sup>	1,001.0	941.4

1. Risk-weighted assets are calculated under the Basel III standardized capital risk-based approach.

Projected Cumulative Losses, Revenue, and Net Income Before Taxes through Q1 2019	9Q Total	Percent of Average Assets
	\$ in billions	
Pre-Provision Net Revenue	41.1	3.3%
Other Revenue	-	
<i>Less</i>		
Provisions	39.8	
Realized Losses/Gains on Securities (AFS/HTM)	0.9	
Trading and Counterparty Losses	2.0	
Other Losses/Gains	2.0	
<i>Equals</i>		
Net Income/(Loss) Before Taxes	(3.7)	(0.3)%
<b>Memo Items</b>		
Other comprehensive income	(3.8)	
<i>Other effects on capital</i>	Q4 2016	Q1 2019
AOCI included in capital (billions of dollars)	(15.4)	(20.8)

These projections represent hypothetical estimates based on the Supervisory Severely Adverse Scenario. These estimates are not forecasts of CBNA's expected pre-provision net revenues, losses, net income before taxes, risk-weighted assets, or pro forma capital ratios.

The Citi logo is centered on a blue gradient background. It features the word "citi" in a white, lowercase, sans-serif font. A red, curved arch is positioned above the letters "i" and "t". To the right of the word "citi" is a registered trademark symbol (®).

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