

2019 Annual Stress Test Disclosure

Dodd-Frank Wall Street Reform and Consumer Protection Act

June 21, 2019



Overview – 2019 Annual Stress Test

In February 2019, the Federal Reserve Board (FRB) launched the 2019 Comprehensive Capital Analysis and Review (CCAR).

- Applies to 18¹ bank holding companies (BHCs), including Citigroup Inc. (Citi)
 - 11 BHCs with significant trading operations, including Citi, are required to apply a hypothetical Global Market Shock to trading, private equity and counterparty exposures.
 - 13 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.
 - In March 2019, the FRB announced that it will limit the use of the “qualitative objection” in CCAR; however, “all firms will continue to be subject to a rigorous evaluation of their capital planning processes...and remain subject to a potential objection on quantitative grounds.”

Citi’s CCAR submission and 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).

¹For 2019, the FRB moved 17 firms to an extended stress test cycle. As such, these firms are not subject to a supervisory stress test during the 2019 cycle.

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 the 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 – 2019 Annual Stress Test

As required by the DFA stress testing rules, the FRB provided a set of three hypothetical supervisory scenarios, including the Supervisory Severely Adverse Scenario, as follows:

- The supervisory severely adverse scenario is characterized by a severe global recession that is accompanied by a period of heightened stress in commercial real estate markets and corporate debt markets.
- U.S. unemployment climbs to a peak of 10 percent, in line with a decline in economic activity and consumer prices.
- As a result, short-term rates fall 2¼ percent and remain near zero, while 10-year rates fall by a smaller amount, resulting in a mildly steeper yield curve.
- Asset prices, including equities, house and commercial real estate prices drop sharply in this scenario.
- The international component of this scenario features severe recession in the euro area, United Kingdom, and Japan, and a shallow recession in developing Asia.

Further description of the Supervisory Severely Adverse Scenario can be found in the publication [*2019 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 2018 and Projected Stressed Capital Ratios through Q1 2021 (%) | Actual | Stressed Capital Ratios | |
|--|---------|-------------------------|----------------------|
| | Q4 2018 | Q1 2021 | Minimum ¹ |
| Common Equity Tier 1 Capital Ratio (%) | 11.9 | 9.6 | 8.7 |
| Tier 1 Risk-Based Capital Ratio (%) | 13.5 | 11.3 | 10.3 |
| Total Risk-based Capital Ratio (%) | 16.6 | 14.4 | 13.6 |
| Tier 1 Leverage Ratio (%) | 8.3 | 7.0 | 6.6 |
| Supplementary leverage ratio (%) | 6.4 | 5.4 | 5.1 |

1. Minimum reflects the lowest value for each ratio over the 9 quarter forecast horizon and the minimum value for all ratios may not occur in the same quarter.

| Projected Cumulative Loan Losses, by Type of Loan, through Q1 2021 | 9Q Total | Portfolio Loss |
|--|----------------|----------------|
| | \$ in billions | Rates (%) |
| Loan Losses | 38.4 | 6.2% |
| First Lien Mortgages, Domestic | 0.4 | 0.5% |
| Junior Liens and HELOCs, Domestic | 0.7 | 7.0% |
| Commercial & Industrial | 5.2 | 3.4% |
| Commercial Real Estate, Domestic | 0.8 | 3.6% |
| Credit Cards | 25.4 | 16.6% |
| Other Consumer | 3.1 | 13.1% |
| Other Loans | 2.9 | 1.6% |

| Actual Q4 2018 and Projected Q1 2021 Risk-Weighted Assets (\$ billions) | Actual | Stressed Risk-Weighted Assets |
|---|---------|-------------------------------|
| | Q4 2018 | Q1 2021 |
| Basel III Risk-Weighted Assets ¹ | 1,174.4 | 1,085.4 |

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 2021 | 9Q Total | Percent of Average |
|---|----------------|--------------------|
| | \$ in billions | Assets (%) |
| Pre-Provision Net Revenue | 50.9 | 2.8 % |
| <i>Equals</i> | | |
| Net Interest income | 100.9 | 5.6 % |
| Noninterest income | 50.2 | 2.8 % |
| <i>Less</i> | | |
| Noninterest expense | 100.2 | 5.6 % |
| Other Revenue | - | |
| <i>Less</i> | | |
| Provisions | 47.0 | |
| Loan Losses | 38.4 | |
| Net Reserve Builds/(Releases) | 8.6 | |
| Realized Losses on Securities (AFS/HTM) | 1.3 | |
| Trading and Counterparty Losses | 11.9 | |
| Other Losses | 3.6 | |
| <i>Equals</i> | | |
| Net Income/(Loss) Before Taxes | (13.0) | (0.7)% |
| Memo Items | | |
| Other comprehensive income | (1.6) | |
| <i>Other effects on capital</i> | Q4 2018 | Q1 2021 |
| AOCl included in capital (billions of dollars) | (36.4) | (39.3) |

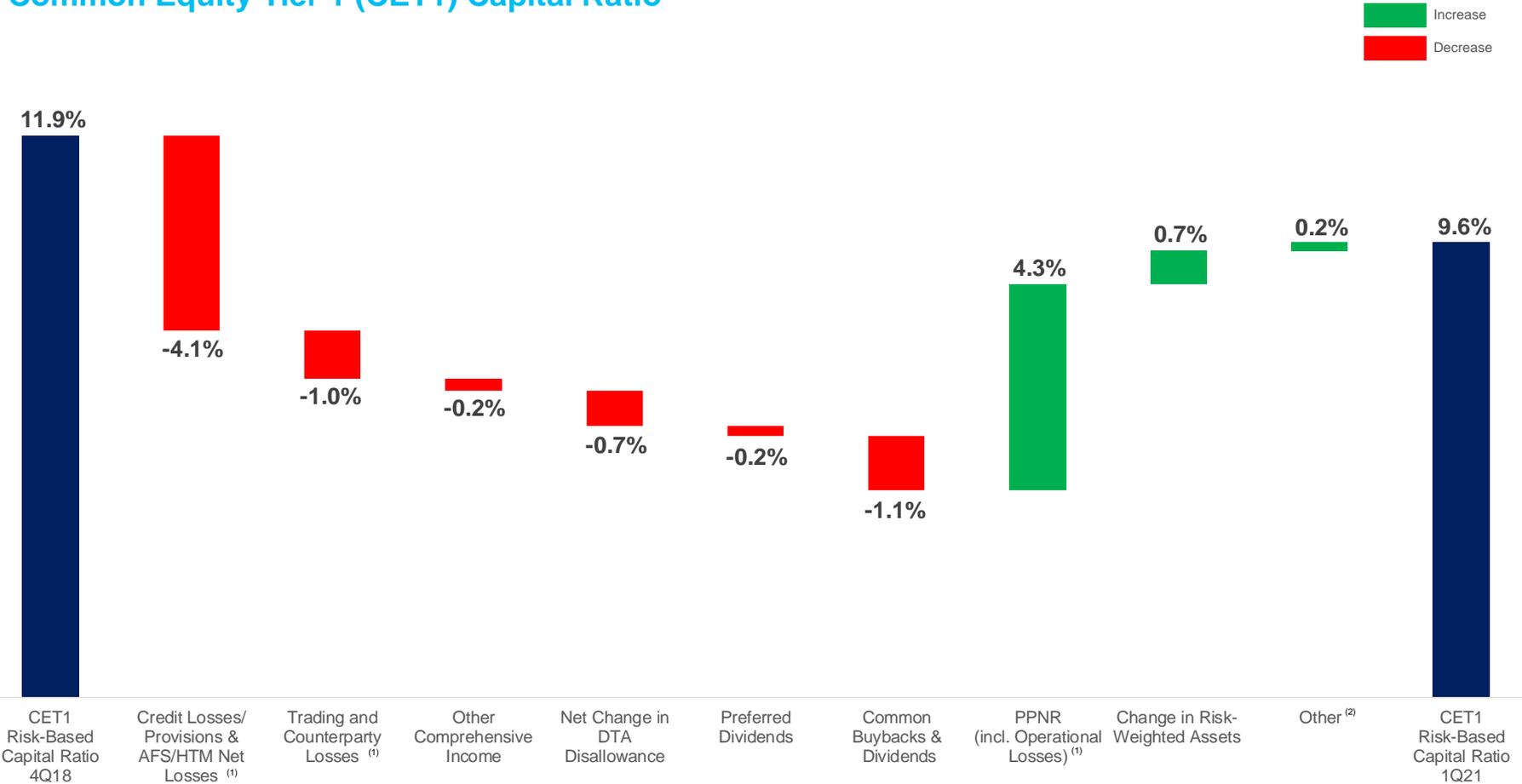
*See page 17

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 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

(4Q18-1Q21; 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.

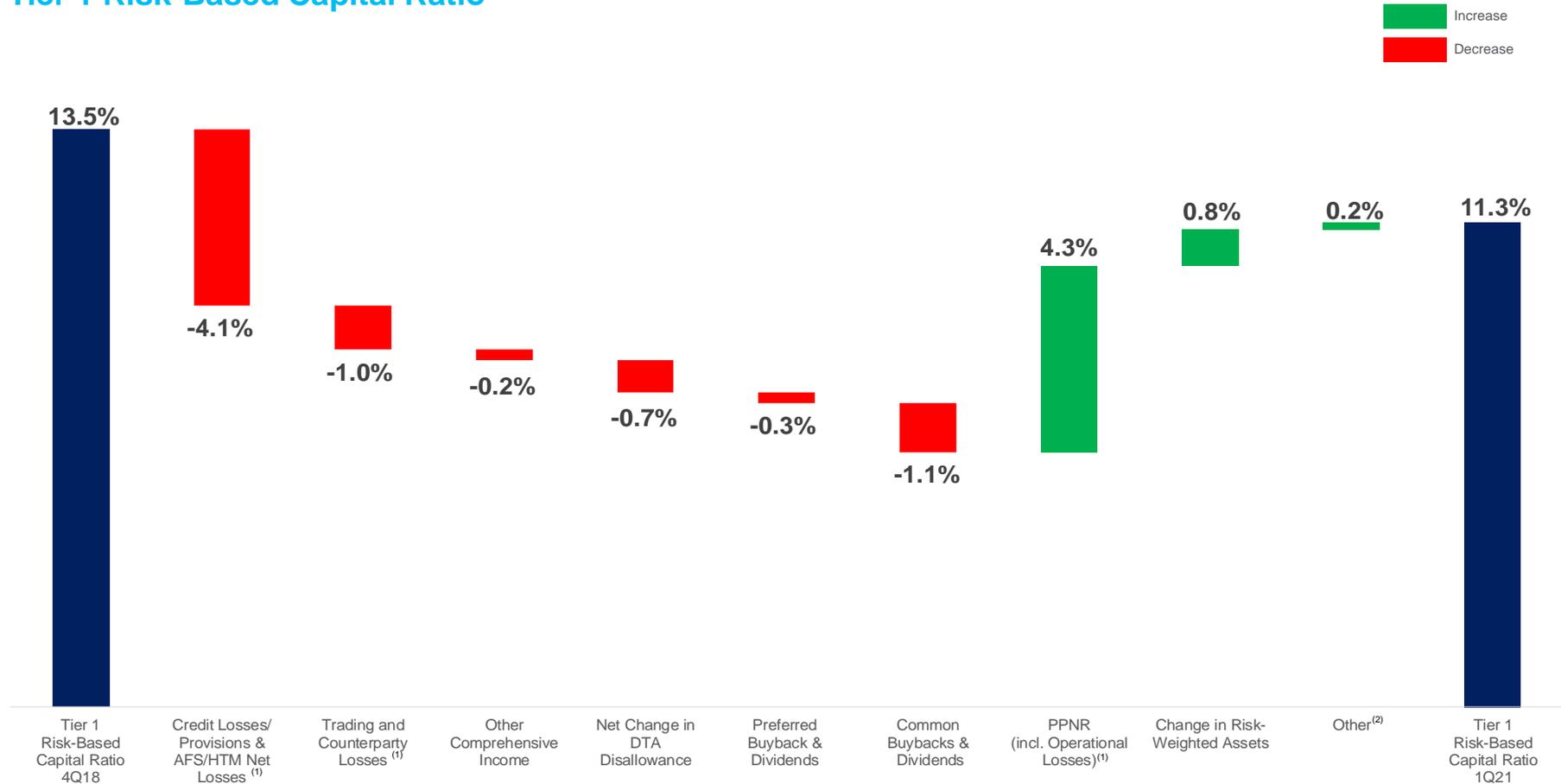
(1) Reflects pre-tax impact.

(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) net tax impact, (v) other income statement, and (vi) capital items.

Key Drivers of Tier 1 Risk-Based Capital Ratio

(4Q18-1Q21; 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.

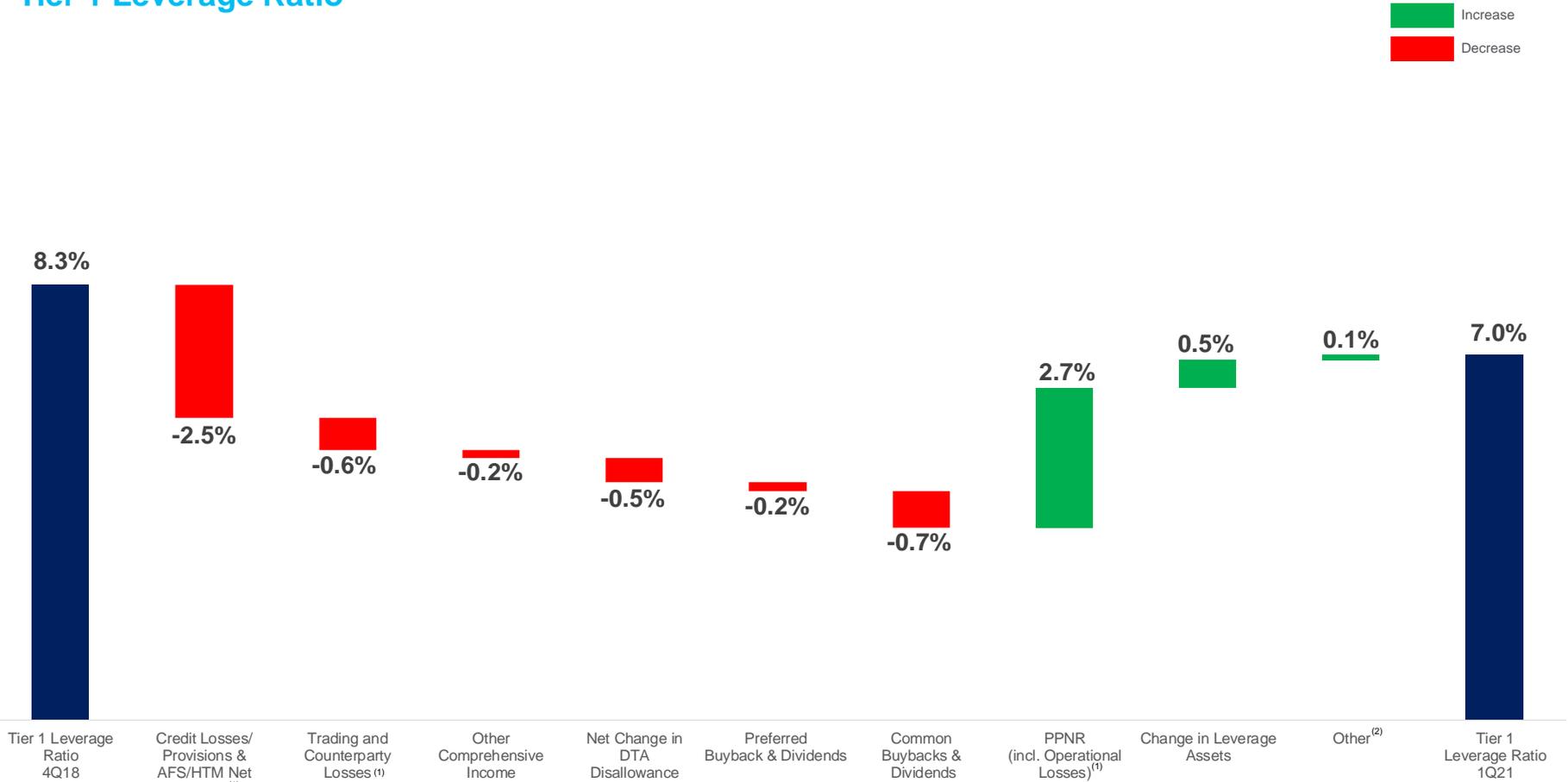
(1) Reflects pre-tax impact.

(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) net tax impact, (v) other income statement, and (vi) capital items.

Key Drivers of Tier 1 Leverage Ratio

(4Q18-1Q21; 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.

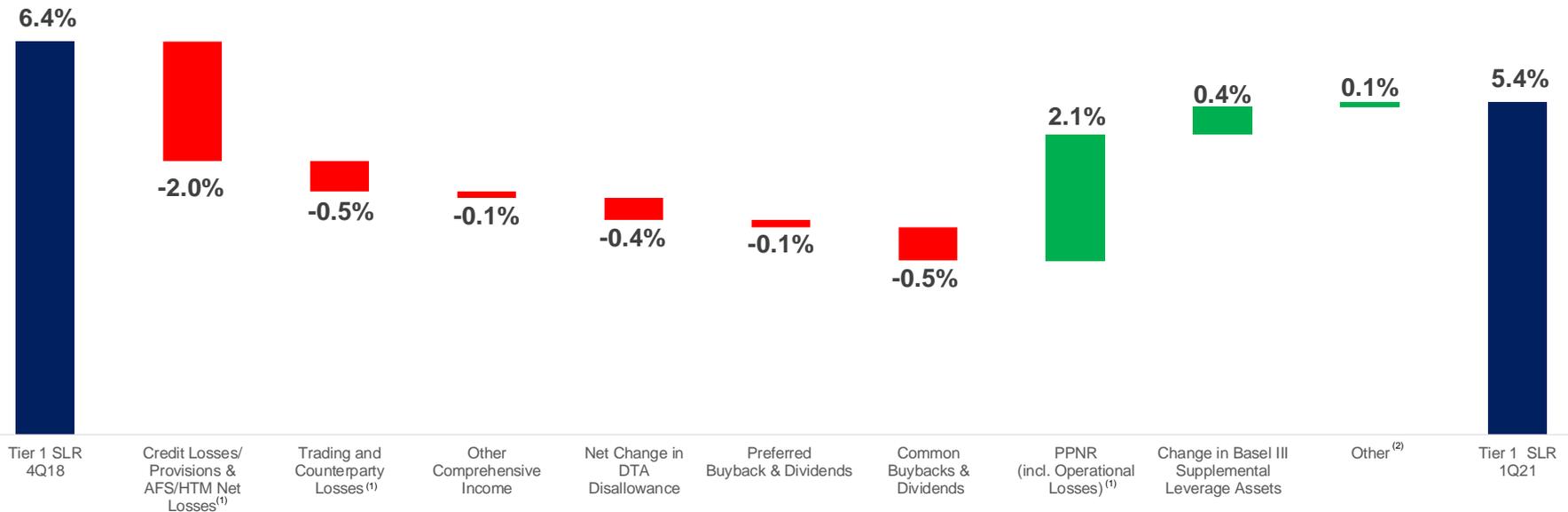
(2) Other includes impacts due to (i) losses from loans held-for-sale and loans accounted for under the fair value option, (ii) goodwill & intangibles amortization, (iii) issuance of employee stock compensation, (iv) net tax impact, (v) other income statement, and (vi) capital items.

Key Drivers of Supplementary Leverage Ratio

(4Q18-1Q21; 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) net tax impact, (v) other income statement, and (vi) capital items.

Risk Types & Methodologies



Risks Included in 2019 Annual Stress Test (page 1 of 2)

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

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

Risks Included in 2019 Annual Stress Test (page 2 of 2)

| Risk Type | Description | Components | Examples |
|-------------------------------------|---|---|---|
| Funding & Liquidity Risk | <p>The potential loss arising from the inability to access liquidity to meet all obligations as and when due.</p> | <ul style="list-style-type: none"> • Pre-Provision Net Revenue • Trading and Counterparty Losses • Unrealized Gains / Losses on Securities (OCI) | <ul style="list-style-type: none"> • Higher funding costs resulting from deposit run-off, or due to widening Corporate Treasury issuance spreads • Market shocks associated with secured financing transactions • Reduced ability to monetize securities holdings (constrained market capacity, discounted market prices) as firms with similar securities pools take similar actions under stress |
| Strategic Risk | <p>The potential loss arising from external competitive factors, or formulation of inappropriate strategic and/or action plans, including poor execution of such plans.</p> | <ul style="list-style-type: none"> • Pre-Provision Net Revenue • Provision for Loan and Lease Losses • DTA utilization | <ul style="list-style-type: none"> • Geopolitical events/tensions which result in lower PPNR (lower loan balances and investment spending, deposit outflows, etc.), and higher losses • 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 |

- 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 for each major business unit as shown below.
- Utilizes historical relationships between loan/deposit balances, revenues, expenses, and relevant macroeconomic variables, as well as business management expertise.
- 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 |
|---------------------------------|--|---|--|
| Component Business Units | <ul style="list-style-type: none"> • North America Retail and Commercial Bank • North America Cards • North America Mortgage • Asia GCB (including certain EMEA markets) • Latin America GCB (Mexico) | <ul style="list-style-type: none"> • Global Banking • Global Markets • Securities Services | <ul style="list-style-type: none"> • Treasury • Operations & Technology • Legacy non-core assets, including loans and portfolios • Global Functions • Other |
| Key Modeling Inputs | <ul style="list-style-type: none"> • GDP • Housing • Inflation • Unemployment rate • Interest rates • Foreign exchange (FX) rates | <ul style="list-style-type: none"> • GDP • Market indices • Volatility • Interest rates • Purchasing Managers index • Corporate bond spreads • FX rates | <ul style="list-style-type: none"> • Non-regression models • Run-off models |
| Business Activities | <ul style="list-style-type: none"> • Retail, small business and commercial loans and deposits • Mortgages • Credit cards (Citi Branded Cards and Retail Services) • Wealth management | <ul style="list-style-type: none"> • Corporate loans and deposits • Sales and Trading • Investment banking • Private banking • Asset management • Transaction services • Security Services | <ul style="list-style-type: none"> • Non-customer facing cost centers • Non-core assets |

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

Trading, Counterparty, and IDL 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 with no associated change to risk-weighted assets, GAAP assets, or PPNR.

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

Realized Gains/Losses on Securities and Other Losses

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 (GDP, Sovereign Spreads, State Income, HPI, etc.) depending on the security characteristics (including but not limited to country, rating, 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 fair value and 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, due to the short timeframe to settlement; however, where appropriate, losses on HFS retail loans are included until the assumed divestiture date.

Risk-Weighted Assets (RWA)

Citi projected its RWA using Basel III RWA methodologies. Consistent with FRB instructions, Basel III RWA under the Supervisory 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 account for the composition of 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 |
| - Issuance of Common Stock for Employee Compensation: \$1.5B | - Common Dividends: \$9.3B - Preferred Dividends: \$2.5B - 1Q19 Common Stock Buybacks: \$4.5B * - 1Q19 Preferred Stock Redemption: \$0.5B - Ordinary payments on TruPS & Subordinated Debt: \$3.2B |

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.

Other Items Impacting Capital Position

- Movements in OCI impact Citi's capital position.
- Annual common stock awards from incentive compensation programs increase common equity, offset by amounts withheld for taxes and compensation expense over the corresponding vesting period.

(*) Includes Tax Withholding Obligations Related to Employee Compensation

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



Citibank, N.A. Stress Test Methodology

- 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 2019 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 72% of Citi’s overall GAAP assets as of 4Q18.
 - Capital ratio projections take into account the capital structure of CBNA¹ 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 2018 and Projected Stressed Capital Ratios through Q1 2021 (%) | Actual | Stressed Capital Ratios | |
|--|---------|-------------------------|----------------------|
| | Q4 2018 | Q1 2021 | Minimum ¹ |
| Common Equity Tier 1 Capital Ratio (%) | 12.5 | 13.3 | 11.5 |
| Tier 1 Risk-Based Capital Ratio (%) | 12.7 | 13.5 | 11.7 |
| Total Risk-based Capital Ratio (%) | 15.0 | 15.9 | 14.1 |
| Tier 1 Leverage Ratio (%) | 9.4 | 10.3 | 9.0 |
| Supplementary leverage ratio (%) | 6.9 | 7.6 | 6.6 |

1. Minimum reflects the lowest value for each ratio over the 9 quarter forecast horizon and the minimum value for all ratios may not occur in the same quarter.

| Projected Cumulative Loan Losses, by Type of Loan, through Q1 2021 | 9Q Total | Portfolio Loss Rates (%) |
|--|----------------|--------------------------|
| | \$ in billions | |
| Loan Losses | 35.1 | 6.0% |
| First Lien Mortgages, Domestic | 0.4 | 0.5% |
| Junior Liens and HELOCs, Domestic | 0.7 | 7.0% |
| Commercial & Industrial | 4.8 | 3.4% |
| Commercial Real Estate, Domestic | 0.8 | 3.6% |
| Credit Cards | 23.8 | 16.1% |
| Other Consumer | 2.0 | 10.1% |
| Other Loans | 2.7 | 1.6% |

| Actual Q4 2018 and Projected Q1 2021 Risk-Weighted Assets (\$ billions) | Actual | Stressed Risk-Weighted Assets |
|---|---------|-------------------------------|
| | Q4 2018 | Q1 2021 |
| Basel III Risk-Weighted Assets ¹ | 1,032.8 | 978.1 |

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 2021 | 9Q Total | Percent of Average Assets (%) |
|---|----------------|-------------------------------|
| | \$ in billions | |
| Pre-Provision Net Revenue | 52.2 | 4.0 % |
| <i>Equals</i> | | |
| Net Interest income | 89.1 | 6.8 % |
| Noninterest income | 32.0 | 2.5 % |
| <i>Less</i> | | |
| Noninterest expense | 68.9 | 5.3 % |
| Other Revenue | - | |
| <i>Less</i> | | |
| Provisions | 43.6 | |
| Loan Losses | 35.1 | |
| Net Reserve Builds/(Releases) | 8.5 | |
| Realized Losses on Securities (AFS/HTM) | 1.0 | |
| Trading and Counterparty Losses | 4.1 | |
| Other Losses | 3.4 | |
| <i>Equals</i> | | |
| Net Income/(Loss) Before Taxes | 0.1 | 0.0 % |
| Memo Items | | |
| Other comprehensive income | 1.2 | |
| <i>Other effects on capital</i> | Q4 2018 | Q1 2021 |
| AOCI included in capital (billions of dollars) | (21.2) | (21.3) |

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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