2015 Mid-Cycle Stress Test Disclosure
Citi Severely Adverse Scenario

Dodd-Frank Wall Street Reform and Consumer Protection Act

July 22, 2015

2015 Mid-Cycle Stress Test

Overview

- Under the stress testing requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act, as implemented by the Federal Reserve Board (FRB), Citi is required to conduct a company-run Mid-Cycle Stress Test (MCST).

- As required by the FRB, the 2015 MCST is conducted using data as of March 31, 2015 and is based on Citi-developed scenarios only.

- Results include estimated pro forma capital ratios based on:

  - General Risk-Based Capital Rules, reflective of Basel I Credit Risk rules and the final (revised) market risk capital rules (Basel II.5); and

  - Basel III Standardized Approach as applied on a transitional basis.

- Citi is required to publicly disclose a summary of projected results under the hypothetical Citi Severely Adverse Scenario (see pages 3-5). In addition to the Citi Severely Adverse Scenario, Citi was required to develop Baseline and Adverse scenarios in performing its 2015 MCST.

- Citi's results under each of the required scenarios were submitted to the FRB in July 2015.

Citi's Mid-Cycle Stress Test Scenarios

Scenario Design

- Citi's scenarios were designed in accordance with regulatory guidance which require that the Citi-developed scenarios reflect Citi's unique vulnerabilities to factors that stress its business model, strategy, firm-wide activities and risk exposures, including macroeconomic, market-wide and firm-specific events.

  – Citi identified events which would have a significant impact to its risk profile, with input from business and control function leaders.

  – Citi used these events with historical data and observed relationships between variables to create a global macroeconomic forecast which was then applied to each of the firm's business units in markets where the firm has a significant presence.

  – Citi assumed relationships between key variables in the MCST scenarios would maintain relationships observed in historical stressed environments and validated its loss forecasting models to assess the reasonability of these assumptions.
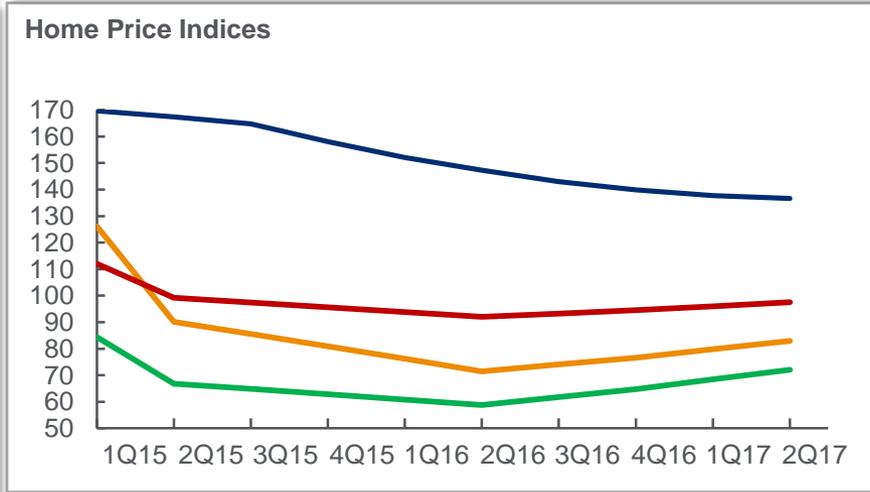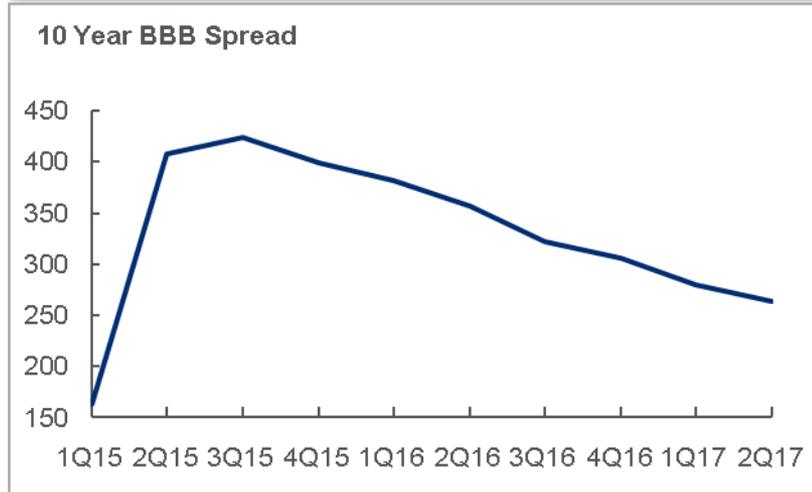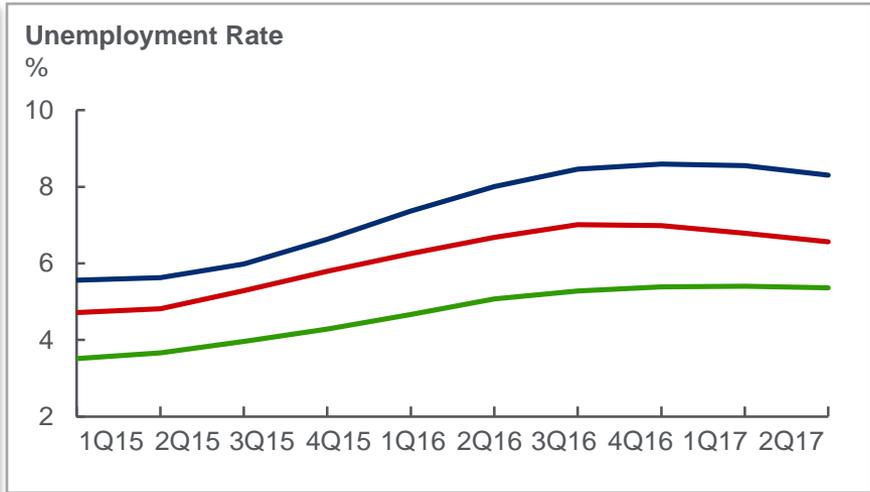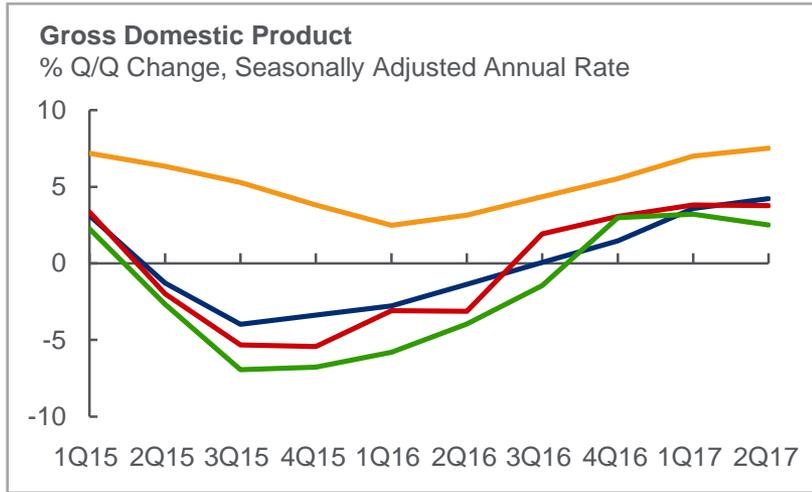
MCST Citi Severely Adverse Scenario

Scenario Description

- The Citi Severely Adverse Scenario reflects a hypothetical severe global recession triggered by a prolonged regional conflict in Asia:

- The regional conflict leads to global disruption in trade and production patterns.
    - Disruption leads to a hard landing in key Asian economies with negative or substantially slowed growth and significant home price declines in certain markets.
    - Other export-oriented countries are also impacted, with sharp rises in unemployment and declines in GDP and home prices.

- In an atmosphere of heightened geopolitical tensions, western corporations and financial institutions experience targeted cyber-attacks, which disrupt business activity and depress consumer and investor sentiment.

- The resulting global economic downturn leads to global risk aversion which prompts equity declines, credit spread widening and an emerging market currency sell off.

- Deterioration of sentiment depresses investment and consumption, which combined with the regional conflict, pushes the U.S. and other developed countries into recession. This leads to a prolonged rise in unemployment and decline in housing prices in these countries, far below pre-recession levels.

- As the recession worsens, monetary policy in developed countries becomes more accommodative, interest rates fall sharply and the yield curve flattens.

The Citi Severely Adverse Scenario should not be viewed or interpreted as an expected forecast, but rather a hypothetical scenario with assumed economic and financial conditions designed to reflect Citi's unique vulnerabilities to factors that affect its firm-wide activities and risk exposures, as required by FRB instructions.

MCST Citi Severely Adverse Scenario: Key Variables

Gross Domestic Product
% Q/Q Change, Seasonally Adjusted Annual Rate

Unemployment Rate
%

10 Year BBB Spread

Home Price Indices

Legend: US, China, Mexico, Japan

These conditions present key variables included in the Citi Severely Adverse Scenario for certain countries important to Citi's global footprint.

The Citi Severely Adverse Scenario should not be viewed or interpreted as an expected forecast, but rather a hypothetical scenario with assumed economic and financial conditions designed to reflect Citi's unique vulnerabilities to factors that affect its firm-wide activities and risk exposures, as required by FRB instructions.

Pro Forma Projections

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

Projected Stressed Capital Ratios through Q2 2017 under the Citi Severely Adverse Scenario

	Actual	Stressed Capital Ratios	
	Q1 2015	Q2 2017	Minimum[1]
Basel I Hybrid Tier 1 Common Ratio (%)	14.0	9.6	9.6
Common Equity Tier 1 Capital Ratio (%)	14.2	8.7	8.6
Tier 1 Risk-Based Capital Ratio (%)	14.2	9.3	9.3
Total Risk-based Capital Ratio (%)	16.8	11.8	11.8
Tier 1 Leverage Ratio (%)	9.3	6.5	6.5

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 Q2 2017 under the Citi Severely Adverse Scenario

	Billions of Dollars	Portfolio Loss Rates (%)
Loan Losses	31.9	5.4%
First Lien Mortgages, Domestic	1.5	1.8%
Junior Liens and HELOCs, Domestic	1.8	7.6%
Commercial & Industrial	3.8	2.7%
Commercial Real Estate, Domestic	0.4	4.2%
Credit Cards	18.3	13.6%
Other Consumer	3.8	13.1%
Other Loans	2.4	1.4%

Actual Q1 2015 and Projected Q2 2017 Risk-weighted Assets under the Citi Severely Adverse Scenario

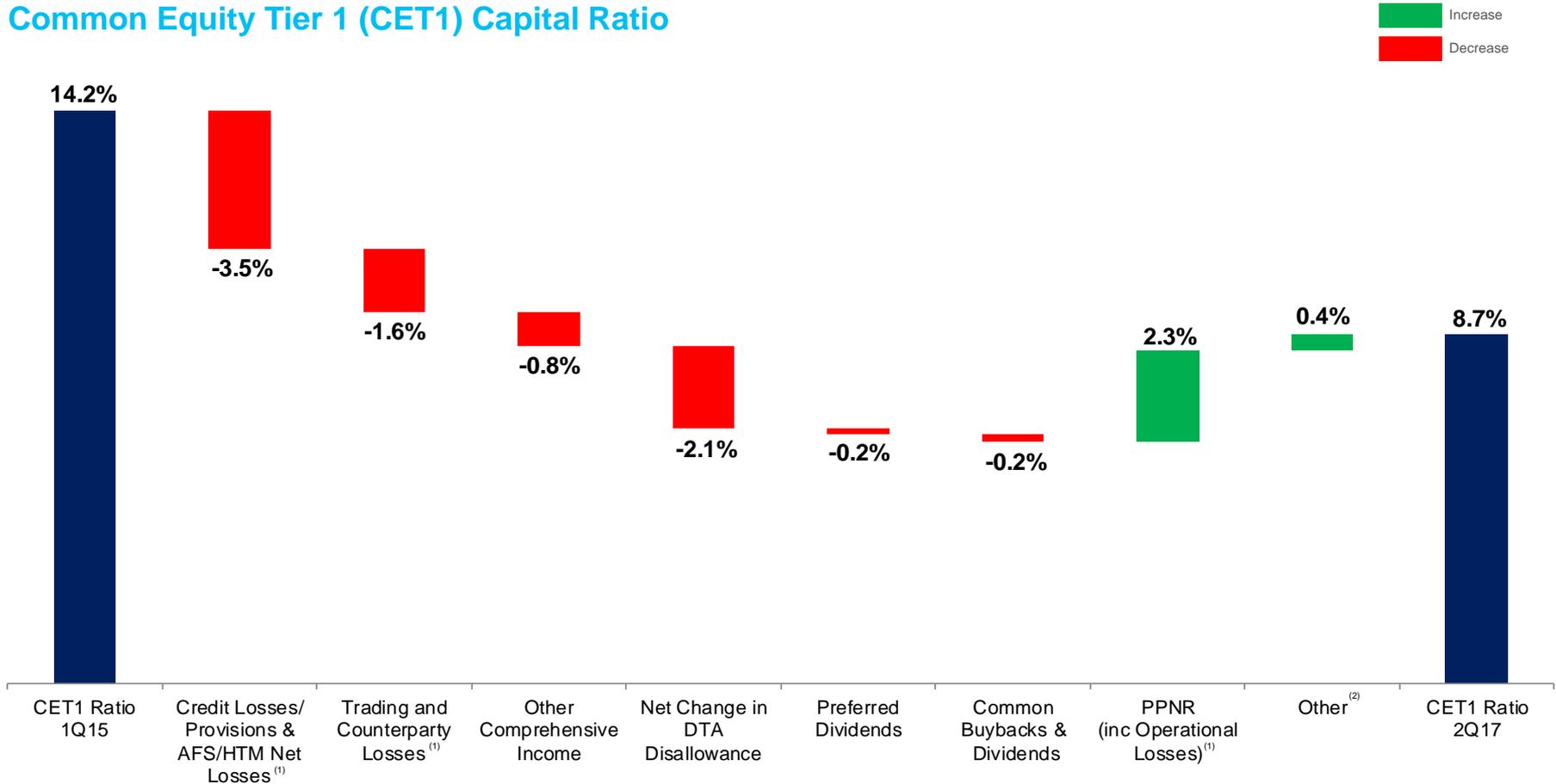|	Actual Q1 2015	Projected Q2 2017	
		General Approach (BI Hybrid)	Basel III Standardized Approach
Risk-weighted Assets (billions of dollars)	1,180.6	1,025.6	1,145.9

Projected Cumulative Losses, Revenue, and Net Income Before Taxes through Q2 2017 under the Citi Severely Adverse Scenario

	Billions of Dollars	Percent of Average Assets
Pre-Provision Net Revenue	27.4	1.6 %
Other Revenue	-	
Less		
Provisions	40.0	
Loan Losses	31.9	
Net Reserve Builds/(Releases)	8.0	
Realized Losses on Securities (AFS/HTM)	0.9	
Trading and Counterparty Losses	18.5	
Other Losses	2.7	
Equals		
Net Income/(Loss) Before Taxes	(34.6)	(2.1)%
Memo Items		
Other comprehensive income	(7.8)	
Other effects on capital	*Q1 2015*	*Q2 2017*
AOCI included in capital (billions of dollars)	(21.1)	(30.7)

* 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
(1Q15-2Q17; Citi Severely Adverse Scenario with Dodd-Frank Capital Actions)

Common Equity Tier 1 (CET1) Capital Ratio

Increase
Decrease

14.2%
-3.5%
-1.6%
-0.8%
-2.1%
-0.2%
-0.2%
2.3%
0.4%
8.7%

CET1 Ratio 1Q15
Credit Losses/ Provisions & AFS/HTM Net Losses [1]
Trading and Counterparty Losses [1]
Other Comprehensive Income
Net Change in DTA Disallowance
Preferred Dividends
Common Buybacks & Dividends
PPNR (inc Operational Losses) [1]
Other [2]
CET1 Ratio 2Q17

Note: These projections represent hypothetical estimates based on the Citi Severely Adverse Scenario with Dodd-Frank Capital Actions. These estimates are not forecasts of Citi's expected pro forma capital ratios.
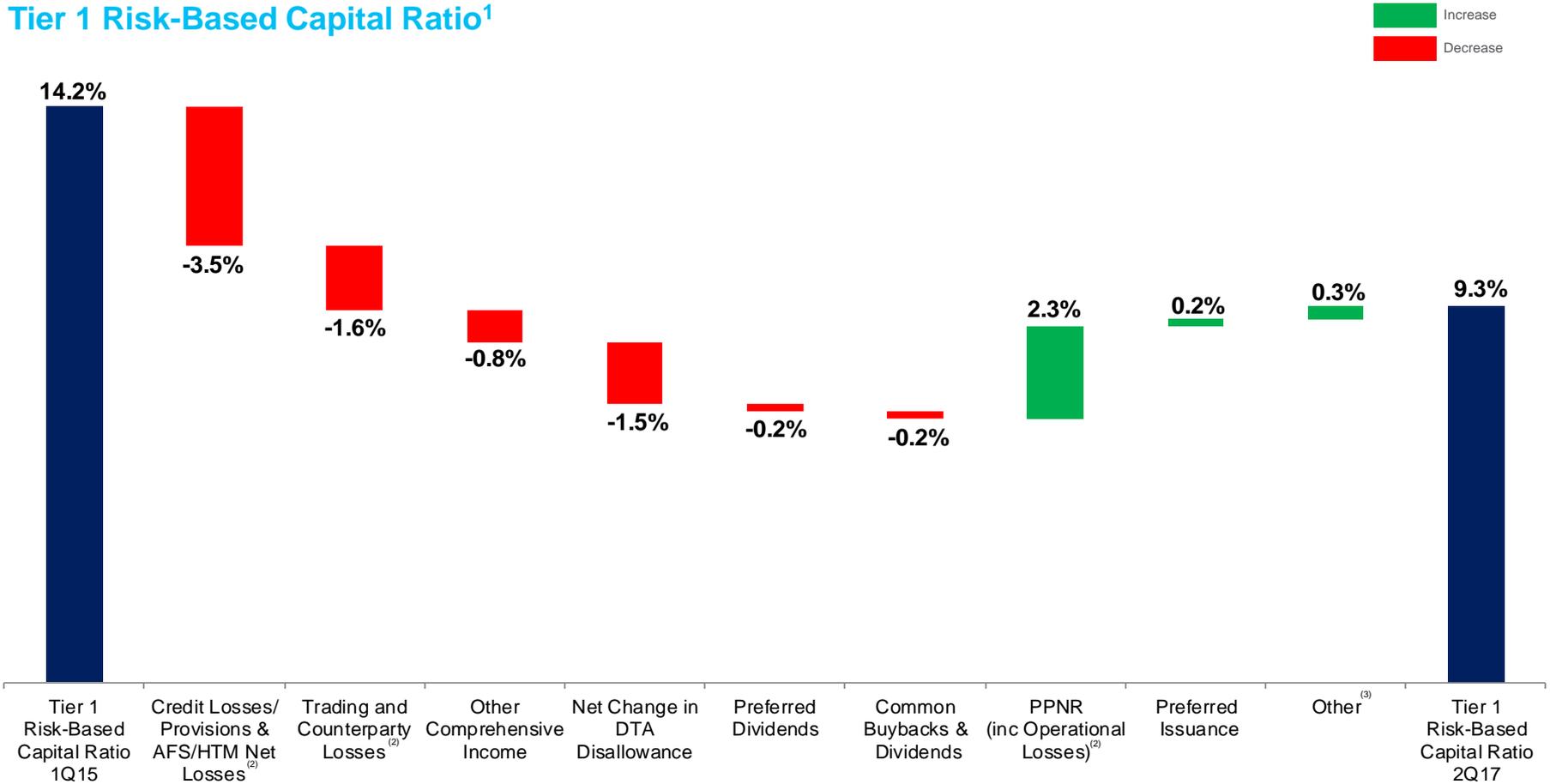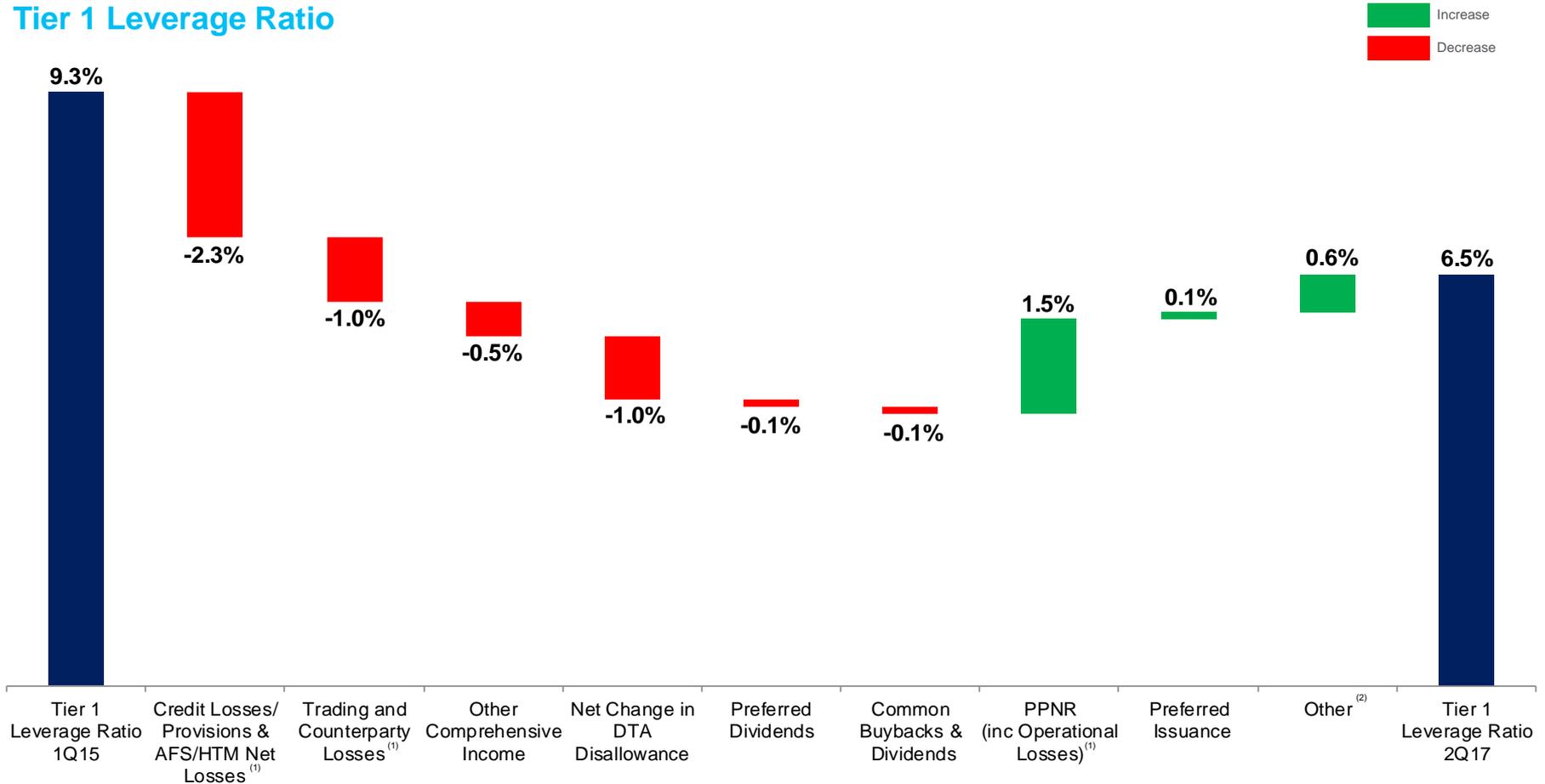
(1) Reflects pre-tax impact.
(2) Other includes impacts due to (i) losses from loans held-for-sale and loans accounted for under the fair value option, (ii) goodwill & intangibles amortization, (iii) issuance of employee stock compensation, (iv) accrued taxes, and (vi) other income statement, capital, and risk-weighted asset items.

Key Drivers of Tier 1 Risk-Based Capital Ratio
(1Q15-2Q17; Citi Severely Adverse Scenario with Dodd-Frank Capital Actions)

Tier 1 Risk-Based Capital Ratio[1]

Legend:
- Increase (green)
- Decrease (red)

Waterfall chart values:
- Tier 1 Risk-Based Capital Ratio 1Q15: **14.2%**
- Credit Losses/ Provisions & AFS/HTM Net Losses[2]: **-3.5%**
- Trading and Counterparty Losses[2]: **-1.6%**
- Other Comprehensive Income: **-0.8%**
- Net Change in DTA Disallowance: **-1.5%**
- Preferred Dividends: **-0.2%**
- Common Buybacks & Dividends: **-0.2%**
- PPNR (inc Operational Losses)[2]: **2.3%**
- Preferred Issuance: **0.2%**
- Other[3]: **0.3%**
- Tier 1 Risk-Based Capital Ratio 2Q17: **9.3%**

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

(1)   Under the Basel III transition rules, certain regulatory capital adjustments and deductions are applied to Tier 1 capital, allocated between CET1 capital and Additional Tier 1 capital. To the extent Additional Tier 1 capital is not sufficient to absorb the applicable adjustments and deductions, the excess is applied against CET1 capital. Because adjustments and deductions exceed Citi's Additional Tier 1 capital, Citi's Tier 1 capital and CET1 capital are equal in 1Q15.
(2)   Reflects pre-tax impact.
(3)   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 (vi) other income statement, capital, and risk-weighted asset items.

Key Drivers of Tier 1 Leverage Ratio

(1Q15-2Q17; Citi Severely Adverse Scenario with Dodd-Frank Capital Actions)

Tier 1 Leverage Ratio

Legend:
- Increase (green)
- Decrease (red)

Waterfall chart values:
- Tier 1 Leverage Ratio 1Q15: **9.3%**
- Credit Losses/ Provisions & AFS/HTM Net Losses[1]: **-2.3%**
- Trading and Counterparty Losses[1]: **-1.0%**
- Other Comprehensive Income: **-0.5%**
- Net Change in DTA Disallowance: **-1.0%**
- Preferred Dividends: **-0.1%**
- Common Buybacks & Dividends: **-0.1%**
- PPNR (inc Operational Losses)[1]: **1.5%**
- Preferred Issuance: **0.1%**
- Other[2]: **0.6%**
- Tier 1 Leverage Ratio 2Q17: **6.5%**

Note: *These projections represent hypothetical estimates based on the Citi 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 (vi) other income statement, capital, and average asset items.

Risk Types & Methodologies

Risks Included in 2015 MCST

Risk Type	Description	Components	Examples
Credit Risk	Credit risk is the potential for financial loss resulting from the failure of a borrower or counterparty to honor its financial or contractual obligations.	• Provision for Loan and Lease Losses • Counterparty Losses and Counterparty Default Scenario • Realized Gains / Losses on Securities • Risk-Weighted Assets	• Loan losses and allowance builds/releases • Credit exposure to counterparties through capital markets transactions • Credit-related other-than-temporary impairment for investment securities • Credit Risk RWA (as described on page 16)
Market Risk	Market risk arises from fluctuations in the market value of positions, resulting from changes in market factors.	• Pre-Provision Net Revenue • Trading and Counterparty Losses • Other Losses • Risk-Weighted Assets	• Impact of market prices and interest rates on components of revenues and expenses across all business segments • 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 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	Operational risk is the risk of loss resulting from inadequate or failed internal processes, systems, or human factors, or from external events including litigation, reputation, and franchise risks.	• Pre-Provision Net Revenue	• Operational risk expenses including litigation expenses, fraud charges, etc. • Mortgage repurchase forecast

• 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 Bank (GCB)	Institutional Clients Group (ICG)	Corporate / Other	Citi Holdings
Component Business Units	• North America Retail and Commercial Bank • North America Cards • North America Mortgage • Asia GCB • Latin America GCB • Europe, Middle East, Africa GCB	• Global Markets • Global Banking • Private Bank • Treasury and Trade Solutions	• Treasury • Operations & Technology • Global Functions • Other	• Non-core businesses and portfolios
Key Modeling Inputs	• GDP • Housing • Inflation • Unemployment rate • Interest rates • Foreign exchange (FX) rates	• GDP • Market indices • Volatility • Interest rates • PMI index • Corporate bond spreads • FX rates	• Non-regression models	• Run-off models
Business Activities	• Retail, small business and commercial loans and deposits • Mortgages • Credit cards	• Corporate loans and deposits • Trading • Investment banking • Private banking • Asset management • Transaction services	• 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	• Includes first and junior liens; closed-end and revolving	• Includes Commercial & Industrial (C&I) loans to obligors globally and domestic • Commercial Real Estate (CRE) loans	• Includes bank and charge cards both domestically and internationally	• Includes global personal loans, student loans, auto loans, and other consumer loans	• Includes international real estate loans and a variety of non-retail loans
Key Modeling Inputs	• Home Price Index (HPI) (CBSA level) • Interest rates • Unemployment rate (state level)	• 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, interest rates, and HPI	• Vintage • Credit score • Geography • Unemployment rate (state level) • GDP	• Product type • Geography • Unemployment rate • GDP	• GDP • HPI • Interest rates • Unemployment rate
Business Activities	• Domestic residential and home equity real estate portfolios in GCB, the Private Bank, and Citi Holdings	• Corporate and commercial loan and commercial real estate exposures in ICG, Private Bank, Commercial Bank, and Citi Holdings	• North America cards (Citi Branded Cards and Retail Services) • Consumer and corporate credit card lending globally	• Includes portions of Citi Holdings as well as personal loans in Latin America, Europe, Middle East and Africa, and Asia GCBs	• International residential real estate in GCB, the Private Bank and Citi Holdings • International commercial real estate and other loans in Commercial Bank, ICG, and Citi Holdings

Trading and Counterparty Losses

- Trading and counterparty losses represent instantaneous losses under a market shock scenario applied to Citi's trading portfolios, CVA, FVA and other mark-to-market assets, inclusive of default losses.

- Consistent with FRB instructions for Supervisory scenarios, these instantaneous losses are reported in the first quarter of the projection period (2Q15) 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)
Risk Types	• Equity, FX, interest rates, commodities, securitized products, traded credit, private equity, CVA hedges, other fair value assets	• 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	• Trading IDR from securitized products and other credit sensitive instruments • Counterparty credit risk, reflected through Counterparty Default Scenario
Key Modeling Inputs	• 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	• 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	• 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	• Global Markets • Corporate Portfolio Management • Citi Holdings	• Global Consumer Banking • Treasury and Trade Services • Citi Holdings • Citi Treasury	• Global Markets • Corporate Portfolio Management • Citi Holdings

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 (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 (FAS 52), OCI from cash flow hedges (FAS 133), OCI from AFS securities (FAS 115), and OCI associated with Citi's pension plans (FAS 158)

- 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)

Citi projected its RWA using Basel III RWA and Basel I Hybrid RWA (for the Basel I Hybrid Tier 1 Common Ratio only). 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 the firm'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 with corresponding projections utilized for stress loss calculations.

Market Risk RWA Projections

- Market Risk RWA forecasts depend upon whether the component is formula-driven or model-driven.
  - Formula-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 formula-driven components are primarily driven by the corresponding balance projections, the model-driven components utilize certain quantitative scenario variables and replenishment assumptions for their forecast.

- Securitization exposures follow similar RWA projection methodologies, irrespective of whether these positions reside in the trading book or not.

Capital

In addition to the inclusion of estimated stress losses and PPNR, Citi's hypothetical capital position under the Citi 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**
- 2Q15 Preferred Stock Issuance: $2.0B - 2Q15 Subordinated Debt Issuance: $3.0B	- Common and Preferred Dividends: $2.6B - 2Q15 Common Stock Buybacks: $1.6B - 2Q15 Subordinated Debt Buybacks: $1.1B - Ordinary payments on TruPS & Subordinated Debt: $2.0B

Transitional Capital Phase-in & Phase-out

- DTA and other certain capital deductions are disallowed at an increasing rate defined under the Basel III Transition Arrangements.

- FAS115/158 Accumulated Other Comprehensive Income neutralization phase-out under the Basel III Transition Arrangements.

- Certain TruPS phase-out from Tier 1 Capital and certain subordinated debt phase-out from Tier 2 Capital.

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 AOCI impacts Citi's capital position, subject to the AOCI 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.