# Credit Suisse Holdings (USA), Inc. 2018 Mid-Cycle Dodd-Frank Act Stress Test Results

## CSH USA Severely Adverse Scenario


CREDIT SUISSE

# Overview

**As part of the stress testing requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), CSH USA is required to conduct a Mid-Cycle Stress Test using a set of internally developed macroeconomic scenarios (internal baseline, internal adverse and internal severely adverse) and publicly disclose the projected results summary under the hypothetical consolidated CSH USA internal severely adverse scenario.**

The planning horizon is a nine quarter forecast which begins with actual results as of June 30, 2018.

The results on pages 5-8 incorporate the following capital action assumptions, as prescribed by the Board of Governors of the Federal Reserve System's Mid-Cycle DFAST requirements:

- Common stock dividends equal to the quarterly average dollar amount of common stock dividends that were paid in the fourth quarter of 2017 through and including the third quarter of 2018
- Payments on any other instrument that is eligible for inclusion in the numerator of a regulatory capital ratio equal to the stated dividend, interest or principal due on such instrument during the quarter
- No redemption or repurchase of any capital instrument that is eligible for inclusion in the numerator of a regulatory capital ratio
- No issuances of common stock or preferred stock, except for issuances related to expensed employee compensation or in connection with a planned merger or acquisition

CSH USA offers a wide variety of banking, trading and wealth management businesses, as a leading Investment Bank and Capital Markets franchise through its subsidiaries in the U.S. However, it should be noted that most complex products and lending portfolios of Credit Suisse Group in the US are booked outside of CSH USA.

The DFAST projected results disclosed herein are reflective of a hypothetical economic scenario developed by CSH USA, as described on slide 3.

# 2018 CSH USA  Severely Adverse Scenario Overview

The CSH USA internally-developed severely adverse scenario is characterized by a deep economic recession and stressed conditions in the global financial markets.  The scenario is designed to expose the risks that are most impactful to CSH USA's capital position, which makes for a challenging and informative stress test.  The scenario includes an internal market shock, which is an instantaneous repricing of CSH USA's trading and counterparty exposures.

The impact of stressed economic and market conditions are also captured in a longer-term component of the scenario.  The behavior of key variables are projected over a nine-quarter planning horizon:

| | |
|---|---|
| **Macroeconomic Backdrop** | There is substantial weakening in US economic activity; GDP declines by about 5.2% in the first five quarters. By Q7, the unemployment rate has increased to 9.7%, just below its October 2009 high of 10%. Even this unemployment rate understates the weakness in the labor market, because labor market participation is falling quickly. |
| **Domestic Markets** | Equity prices drop by 54% over the course of the recession and, correspondingly, the equity market volatility index jumps to a peak of 67 at the start of the scenario. House prices also decline sharply, joining equities in striking a blow to household balance sheets. Oil prices fall on reduced global demand, and the CPI shows overall disinflation. An environment of marked risk aversion ensues.<br><br>Interest rates on Treasury debt descend quickly but are bounded by zero by virtue of the Federal Reserve's reluctance to experiment with negative interest rate policy. From the seventh quarter onward, rates across the curve stage a partial rebound, although short-term rates remain near zero throughout the projection period.<br><br>Spreads on investment grade BBB rated corporate bonds and speculative B rated bonds ramp-up substantially during the recession. As a result, the costs for corporations to tap the market become prohibitive. Mortgage rate spreads widen initially, as well, but then stabilize in response to large-scale MBS and Treasury debt purchases by the Federal Reserve. |
| **International** | US weakness extends to the Euro area, and there is below-trend growth in Developing Asia. The Euro area slips into recession, tracking the US economy. |
| **Recovery Period** | A slow GDP recovery takes hold at the Q5 trough, and real output expands by a cumulative 3.0% to end the nine-quarter projection period. The level of real GDP ends the projection period some 2.3% below its previous peak. Corporate investment remains weak, mirroring the disengagement seen in the household sector.<br><br>During the recovery, the financial industry continues to experience heightened risk aversion and subdued trading volumes in both the equity and corporate credit businesses. |

# Results

# Company-Run Severely Adverse Scenario – CSH USA Results

- **CSH USA maintains capital levels and ratios above its post-stress capital goal and regulatory minima in the Company-Run Severely Adverse Scenario**, for all quarters across the planning horizon and all risk-based and leverage-based ratios
- Capital depletion primarily driven by pre-provision net revenue (PPNR) losses and the Internal Market Shock

| Regulatory Ratio | Actual Q2 2018 | Projected Stressed Capital Ratios[1] | | Regulatory Minimum |
|---|---|---|---|---|
| | | Ending | Minimum | |
| Common Equity Tier 1 Capital Ratio | 22.3% | 13.8% | 13.8% | 4.5% |
| Tier 1 Risk-Based Capital Ratio | 22.9% | 14.4% | 14.4% | 6% |
| Total Risk-Based Capital Ratio | 23.0% | 14.5% | 14.5% | 8% |
| Tier 1 Leverage Ratio | 11.3% | 7.7% | 7.7% | 4% |
| Supplementary Leverage Ratio | 9.8% | 6.4% | 6.4% | 3% |

| Item | Actual Q2 2018 ($BN) | Projected Q3 2020 ($BN) |
|---|---|---|
| Risk-Weighted Assets[2] | $68.1 | $64.7 |

**(1) The capital ratios are calculated using capital action assumptions provided within the Dodd-Frank Act stress testing rule. These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of expected losses, revenues, net income before taxes, or capital ratios. The minimum capital ratio presented is for the period 2018:Q3 to 2020:Q3.**
**(2) Risk-weighted assets are calculated under the Federal Reserve's Basel III standardized capital risk-based approach.**

# Company-Run Severely Adverse Scenario – CSH USA Income Statement and Loan Lease Losses

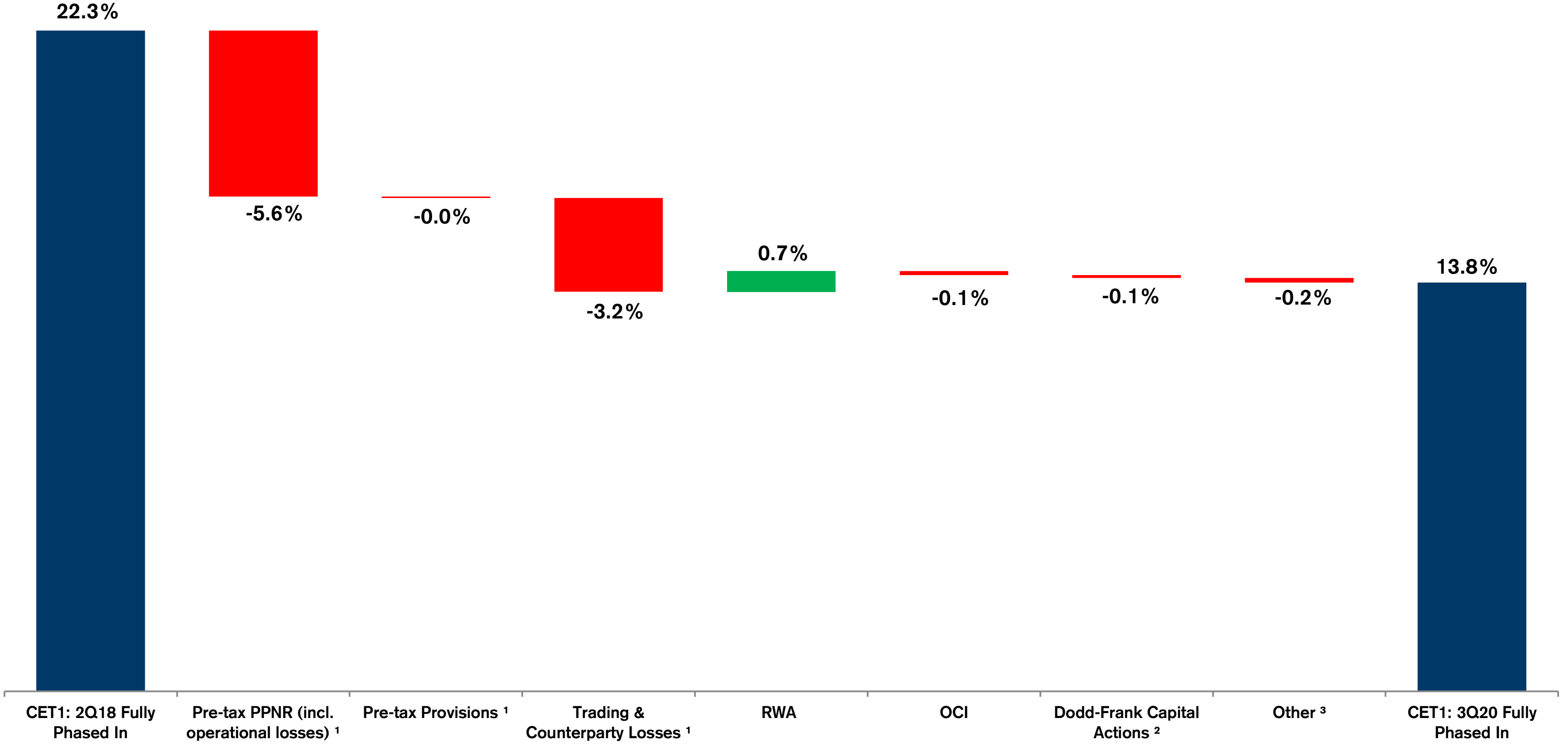
| Item | Billions of Dollars | Percent of Average Assets[1] |
|---|---|---|
| Pre-Provision Net Revenue[2] | (3.8) | -3.1% |
| Other Revenue[3] | (0.1) | |
| *Less* | | |
| Provisions | 0.0 | |
| Realized Losses/Gains on Securities (AFS / HTM) | | |
| Trading and Counterparty Losses[4] | 2.2 | |
| *equals* | | |
| Net Income before Taxes | (6.1) | -5.0% |
| Memo Items | | |
| Other Comprehensive Income[5] | (0.1) | |
| *Other Effects on Capital* | Actual 2Q 2018 | 3Q 2020 |
| AOCI Included in Capital (in Billion Dollars)[6] | (0.1) | (0.2) |

| Loan Type | Billions of Dollars | Portfolio Loss Rates (Percent)[7] |
|---|---|---|
| First-Lien Mortgages, Domestic | 0.0 | 0.0% |
| Junior Liens and HELOCs, Domestic | 0.0 | 0.0% |
| Commercial and Industrial | n/a | n/a |
| Commercial Real Estate, Domestic | 0.0 | 0.0% |
| Credit Cards | n/a | n/a |
| Other Consumer | 0.0 | 0.0% |
| Other Loans[8] | 0.0 | 0.2% |
| **Total Projected Loan Losses** | 0.0 | 0.2% |

**(1) Average assets is the nine-quarter average of total assets.**
**(2) Pre-provision net revenue includes losses from operational-risk events, mortgage repurchase expenses, and other real estate owned (OREO) costs.**
**(3) Other revenue includes one-time income and (expense) items not included in pre-provision net revenue.**
**(4) Trading and counterparty losses inclusive of $2.2bn from Internal Market Shock.**
**(5) Other comprehensive income is only calculated for advanced approaches firms.**
**(6) Represents the life-to-date balance of accumulated other comprehensive income ("AOCI") as of 2Q 2018 and 3Q 2020.**
**(7) Average loan balances used to calculate portfolio loss rates exclude loans held for sale and loans held for investment under the fair-value option, and are calculated over nine quarters.**
**(8) Other loans include loans to depositories and other financial institutions and loans for purchasing or carrying securities.**

# CSH USA Common Equity Tier 1 (CET1) Ratio Drivers

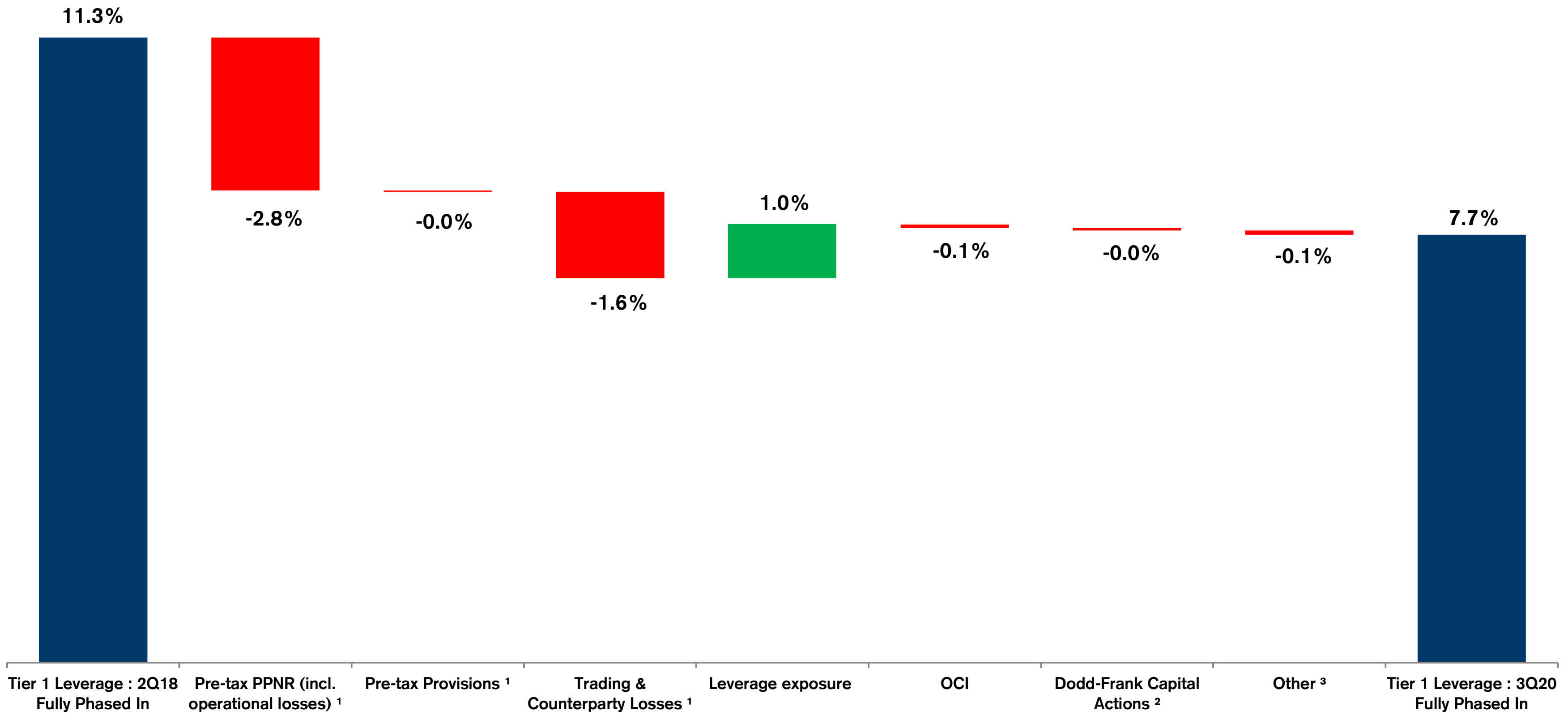
2Q18 – 3Q20; Company-Run Severely Adverse Scenario with Dodd-Frank Act Capital Actions[2]




(1) Reflects Pre-Tax Impact
(2) Reflects Dividends on Preferred Stock as prescribed in Dodd-Frank Act Stress Test Capital Actions assumptions
(3) Other includes the impact of income taxes

# CSH USA Tier 1 Leverage Ratio Drivers

2Q18 – 3Q20; Company-Run Severely Adverse Scenario with Dodd-Frank Act Capital Actions[2]




(1) Reflects Pre-Tax Impact
(2) Reflects Dividends on Preferred Stock as prescribed in Dodd-Frank Act Stress Test Capital Actions assumptions
(3) Other includes the impact of income taxes

# Risks and Projection Methodology

# Company-Run Severely Adverse Scenario – Risks

To facilitate risk management within CSH USA, the Risk Organization classifies risk into classes. The following are the principal risk classes of CSH USA as of 2Q18:

| Risk Type | Description |
|---|---|
| **Market** | The risk to earnings or capital due to adverse changes in market factors, including mortgage and credit spreads, equity, interest rates and other factors |
| **Corporate Treasury & Liquidity Funding** | The risk to earnings, capital or the continuation of business arising from a company's inability to meet both expected and unexpected current and future cash flow and collateral requirements |
| **Credit** | The risk of financial loss if a customer or counterparty fails to meet a payment obligation to settle outstanding amounts under a contract |
| **Model** | The risk inherent in the use of financial models |
| **Reputational** | The risk that negative perception by our stakeholders may adversely impact client acquisition and damage our business relationships with clients and counterparties, affecting staff morale and reducing access to funding sources |
| **Strategic** | The risk that appropriate business strategy does not deliver on anticipated financial benefits |
| **Capital** | The risk associated with the potential inadequacy of capital |
| **Operational** | The risk of financial loss arising from inadequate or failed internal processes, people or systems, or from external events |

# Projection Methodology

The table below provides a high level description of the projection methodologies:

| Projection | Description |
|---|---|
| **Pre-Provision Net Revenue ("PPNR")** | Revenue projections were performed at a granular line of business / revenue driver level using a set of models and management judgment methodologies linking the performance of the business to projected scenario variables.<br>Expenses are modeled by starting with the budget projections and reflecting the impact of reduction in revenues on expense components driven by transaction volume or profitability (e.g. brokerage fees and variable compensation). |
| **Operational Risk** | Operational Risk expense projection methodology consists of three components that take into account differences in loss characteristics of different types of loss events and relies on historical loss data collected over 17 years and scenario analysis.<br><br>1) Run rate losses arise in the normal course of business and can be correlated with the macroeconomic or market environment<br>2) Legal losses cover the entire spectrum of legal risks including losses within risk appetite, uncertainty of current litigation, and large hypothetical legal losses<br>3) Forward looking large operational events<br><br>The projection is extensively benchmarked against historical loss level, industry loss levels and alternative modeling outcomes. |
| **Balance Sheet** | Assets and liabilities are projected at line of business level and used as a driver of revenues where applicable. Trading inventory levels and securities lending balances reflect the evolution of asset prices throughout the projection horizon. |
| **Risk-Weighted Assets** | CSH USA's RWA forecast reflects the application of the Standardized Approach under U.S. Basel III for the Common Equity Tier 1, Tier 1 Capital and Total Capital Ratios. Credit Suisse's internal RWA forecasting models capture the impact of stress on exposures and risk weights as well as the impact of changes in asset balances produced by the balance sheet models. |
| **Capital** | Capital forecasts include the impact of all revenue and expense projections and the application of the regulatory capital rules and associated capital deductions (primarily related to goodwill and deferred tax assets) established under 12 CFR Part 217 (the U.S. Basel III rules). |