UBS

2018 Mid-Cycle Dodd-Frank Act Company-Run Stress Test (DFAST) Filed with Board of Governors of the Federal Reserve System

October, 2018

Cautionary statement

This 2018 Mid-cycle Dodd Frank Act Stress Test Disclosure presents stress test results conducted by UBS Americas Holding LLC ("AH" or "Americas Holding") in accordance with the regulation, issued by the Board of Governors of the Federal Reserve System (the "Federal Reserve"), which implements the Dodd-Frank Act Stress Testing ("DFAST") requirements for covered companies. The results summarized in this presentation contain forward-looking projections prepared by consolidated Americas Holding, based on the firm's internally developed hypothetical stress scenario summarized in this presentation. The estimates also reflect certain required assumptions regarding Americas Holding's capital actions. The quantitative outputs and qualitative discussion herein should not be viewed as forecasts of expected pre-provision net revenue, income, capital, risk weighted assets (RWA), capital ratios or leverage ratio outcomes as a measure of the solvency or actual financial performance or condition of Americas Holding. Instead, the outputs and discussions are estimates from forward-looking exercises that consider possible outcomes based on hypothetical, highly adverse economic scenarios and therefore are more adverse than expected results.

The outputs of the analyses and the discussion contained herein may not align with those produced by the Federal Reserve or other financial institutions conducting similar exercises, even if similar hypothetical stress scenarios were used, due to differences in methodologies and assumptions used to produce those outputs.

Requirements for the Mid-Cycle Dodd-Frank Act Stress Test

- The 2018 Mid-Cycle Dodd Frank Act Stress Test Disclosure presents results of the mid-cycle stress test conducted by UBS Americas Holding LLC's ("AH LLC") in accordance with the regulation, issued by the Board of Governors of the Federal Reserve System (the "Federal Reserve"), which implements the Dodd-Frank Act stress testing ("DFAST") requirements for covered companies.
- The results reflect certain forecasted financial measures for the nine-quarter projection period (Q3 2018 through Q3 2020) under internally developed severely adverse stress scenario (the "Company-Run Severely Adverse Scenario").
- The results presented are calculated using forecasting models and methodologies developed and employed by AH LLC. The risks captured in AH LLC's 2018 Mid-Cycle DFAST stress test, as well as the methodologies and processes used to execute the stress test, are substantially consistent with those that were used by AH LLC to perform the 2018 Comprehensive Capital Analysis and Review ("CCAR"), the results of which were disclosed in 2018 Annual Stress Test Disclosure presentation dated June 21, 2018.
- The principal assumptions in the 2018 Company-Run Severely Adverse Scenario are described on page 4.
- The planning horizon begins with UBS Americas Holding LLC's ("AH LLC") actual position as of June 30, 2018 and includes a nine quarter forecast beginning with the third quarter of 2018 and ending with the third quarter of 2020.
- AH LLC is required to employ the following assumptions (the "Dodd-Frank Act Stress Testing Capital Actions") regarding its projected capital actions beginning with the second quarter of the nine quarter forecast horizon:
  - Payment of common dividends equal to the quarterly average dollar amount of common stock dividends paid over the past four quarters.
  - Payments on any other instrument eligible for inclusion in the numerator of a regulatory capital ratio equal to the stated dividend, interest or principal due on such instrument.
  - No redemption or repurchase of any capital instrument eligible for inclusion in the numerator of a regulatory capital ratio; and
  - 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.
- The results of AH LLC's stress test, under the Company-Run Severely Adverse Scenario assuming the Dodd-Frank Act Stress Testing Capital Actions, are presented on pages 5 through 9.

Description of the Company-Run Dodd-Frank Stress Test Scenario

The internally developed Company-Run Severely Adverse Scenario is characterized by a global financial crisis triggered by a sharp market sell-off.

- The U.S. economy contracts for a period of five quarters, with U.S. real GDP declining 8.2% and recovering gradually thereafter. U.S. unemployment peaks at 9.4% in the second projection year.
- Real estate prices experience large declines, with house prices and commercial real estate prices falling 39% and 49%, respectively.
- U.S. equity markets decline 62% over the course of the first five quarters accompanied by a surge in the Market Volatility Index (VIX) to 90 in Q4 2018.
- U.S. Short-term Treasury rates drop to 0.7% in the first quarter, where they remain for the remainder of the forecasting period whereas U.S. Long-term Treasury rates trough at 1.7% in Q1 2019 and recover gradually thereafter.
- The spread between yields on investment-grade corporate bonds and long-term Treasury securities widens to 680 bps by Q1 2019 while the spread between 30-year fixed-rate mortgages and 10-year Treasury yields peaks at approximately 210 bps in Q3 2018.
- The Company-Run Severely Adverse Scenario also includes an upfront instantaneous market shock (applied to the AH LLC's trading book exposure) and the unexpected default of a large counterparty.

UBS Americas Holding LLC Mid-Cycle Dodd-Frank Stress Test – Capital and RWA Projections

Actual Q2 2018 and Projected Capital Ratios[1] through Q3 2020
Under the Company-Run Severely Adverse Scenario

Regulatory Ratio	Actual Ratio at 06/30/18[2]	Hypothetical Stressed Ratios at 09/30/20	Hypothetical Stressed Minimum Ratios	Regulatory Minimum[3]
Common Equity Tier 1 Ratio (%)	20.9%	10.9%	10.9%	4.5%
Tier 1 Capital Ratio (%)	25.1%	14.8%	14.8%	6.0%
Total Capital Ratio (%)	26.5%	16.2%	16.2%	8.0%
Tier 1 Leverage Ratio (%)	9.9%	6.1%	6.1%	4.0%

Risk-Weighted Assets[4]		
in $ billion	Actual RWA at 06/30/18[2]	Hypothetical Stressed RWA at 09/30/20
US Basel III RWA	51.1	54.2

1. The capital ratios are calculated using capital action assumptions prescribed under the Dodd-Frank Act stress testing requirement. Minimum reflects the lowest value for each ratio over the 9 quarter forecast horizon for the period Q3 2018 to Q3 2020.
2. As reported in UBS Americas Holding LLC Form FR Y-9C as of June 30, 2018.
3. 12 CFR 217.10 (a) Board-regulated institution must maintain a minimum common equity tier 1 capital ratio of 4.5 percent, a minimum tier 1 capital ratio of 6 percent, a minimum total capital ratio of 8 percent, and a minimum leverage ratio of 4 percent.
4. Risk-weighted assets are calculated applying the standardized approach under the Federal Reserve's Regulatory Capital Rules: 12 CFR Parts 208, 217, and 225.

UBS Americas Holding LLC Mid-Cycle Dodd-Frank Stress Test – PPNR and Net Income Projections

Projected Pre-Provision Net revenue, Losses and Net (Loss)/Income Before Taxes from Q3 2018 through Q3 2020 Under the Company-Run Severely Adverse Scenario

in $ millions	Cumulative Results Over 9 Quarters	% of Average Assets
PPNR[1]	-$1,616.7	-1.1%
Less:		
Provision for Loan and Lease Losses	$807.6	
Realized Losses on Securities (AFS/HTM)	$0.0	
Trading and Counterparty Losses[2]	$1,300.1	
Other Losses[3]	$247.5	
Net Income Before Taxes	-$3,972.0	-2.8%

1. Pre-provision net revenue includes losses from operational-risk events.
2. Trading and counterparty losses include mark-to-market losses, changes in credit valuation adjustments, incremental default losses and interim market risk components.
3. Other losses/gains includes projected change in fair value of loans held for sale and loans held for investment measured under the fair value option, goodwill impairment losses and other non-credit losses.

UBS Americas Holding LLC Mid-Cycle Dodd-Frank Stress Test – Projected Loan Losses

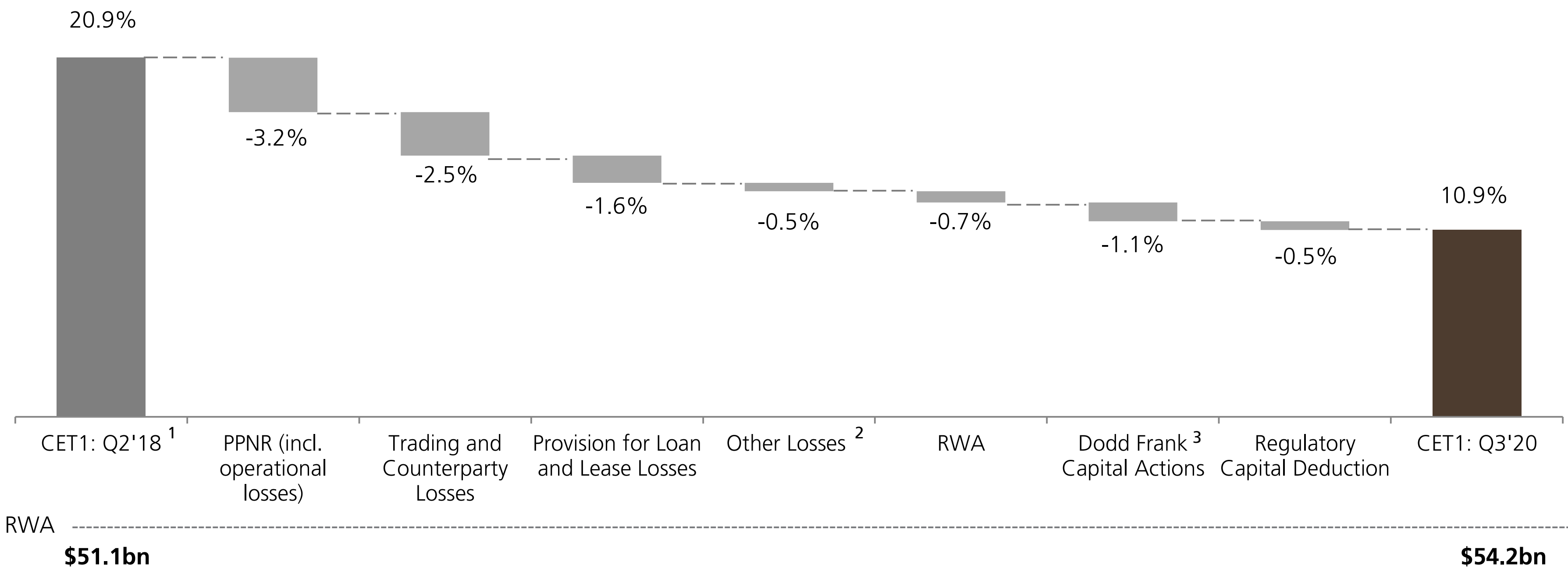
Projected Loan Losses by Type of Loan from Q3 2018 through Q3 2020 under the Company-Run Severely Adverse Scenario

Loan Type[1] in $ millions	Cumulative Results Over 9 Quarters	Portfolio Loss Rates Over 9 Quarters
Estimated Loan Losses	$788.7	1.6%
First Lien Mortgages, Domestic	$371.6	2.5%
Junior Lien Mortgages, Domestic	$0.0	0.0%
Commercial and Industrial	$14.8	0.3%
Commercial Real Estate	$32.6	10.2%
Credit Cards	$27.0	11.4%
Other Consumer	$86.6	0.4%
Other Loans	$256.1	2.5%

1. Loan categories follow FR Y-14A reporting requirements. Percentage of average balance of the identified type of loans represented by projected aggregate loan losses. Loan balances are averaged over the nine-quarter planning horizon. Average loan balance used to calculate portfolio loss rates excludes loans held for sale and loans held for investment under the fair value option, and are calculated over nine quarters.

UBS Americas Holding LLC Mid-Cycle Dodd-Frank Stress Test – Key Drivers of CET1/RWA Ratio

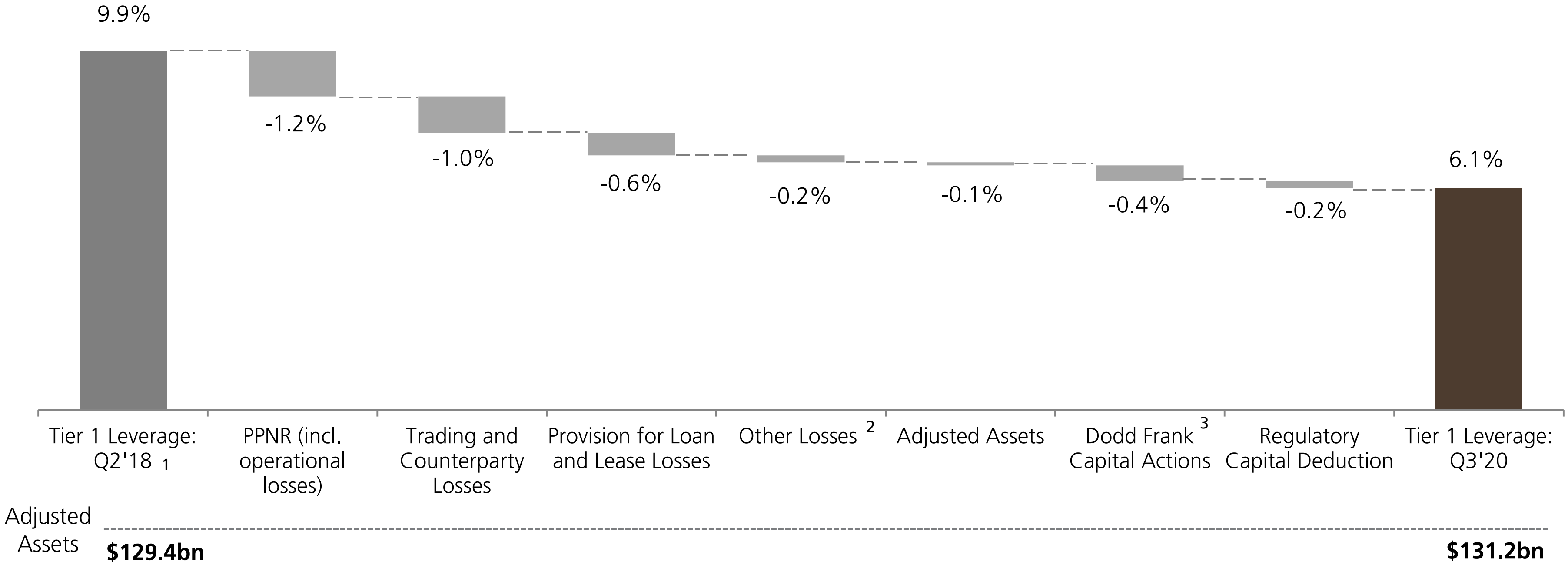
Key Drivers of Common Equity Tier 1 Capital Ratio ("CET 1")
Under the Company-Run Severely Adverse Scenario



1. As reported in UBS Americas Holding LLC Form FR Y-9C as of June 30, 2018.
2. Other losses/gains includes projected change in fair value of loans held for sale and loans held for investment measured under the fair value option, goodwill impairment losses, other non-credit losses.
3. Dodd Frank Capital Actions reflect quarterly average dollar amount of common stock dividends paid over the past four quarters and cash dividend on preferred stock in accordance with the assumptions prescribed in the Dodd Frank Act Stress Testing Capital Actions, which are outlined on page 3 of this presentation.

UBS Americas Holding LLC Mid-Cycle Dodd-Frank Stress Test - Key Drivers of Tier 1/Adjusted Assets Ratio

Key Drivers of Tier 1 Leverage Ratio
Under the Company-Run Severely Adverse Scenario



1. As reported in UBS Americas Holding LLC Form FR Y-9C as of June 30, 2018.
2. Other losses/gains includes projected change in fair value of loans held for sale and loans held for investment measured under the fair value option, goodwill impairment losses, other non-credit losses.
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Material risks driving capital adequacy assessment projections

The below risks are those inherent in UBS Americas Holding LLC's key business activities. The results of the firm's capital stress tests reflect these risks:

Credit Risk	• The risk of loss resulting from the failure of a client or counterparty to meet its contractual obligations toward AH LLC. This risk arises from a variety of business activities including lending commitments, mortgages, traded products (e.g., exchange traded derivatives, securities borrowing/lending, repo/reverse repo, prime brokerage).
Market Risk	• The risk of loss resulting from adverse movements in market variables. Market variables include observable variables, such as interest rates, foreign exchange rates, equity prices, credit spreads and commodity prices, and variables that may be unobservable or only indirectly observable, such as volatilities and correlations.
Treasury Risk	• The risk of increased cost or reduced access to funding sources. It includes liquidity risk (the risk of being unable to generate sufficient funds from assets to meet payment obligations when they fall due), funding risk (the risk of higher-than-expected funding costs due to wider-than-expected UBS credit spreads when existing funding positions mature and need to be rolled over, or replaced by other, more expensive funding sources and interest rate risk (the risk from banking activities which are booked and accounted for as non-traded book as defined per regulatory capital treatment/requirements).
Investment Risk	• The risk arising from proprietary capital investments in funds or managed accounts set up by UBS or through joint ventures, and from equity holdings.
Pension Risk	• The risk of a negative impact on capital as a result of deteriorating funded status from decreases in the fair value of assets held in the defined benefit pension funds and / or changes in the value of defined benefit pension obligations due to changes in actuarial assumptions (e.g., discount rate, life expectancy, rate of pension increase) and / or changes to plan designs.

Material risks driving capital adequacy assessment projections

The below risks are those inherent in UBS Americas Holding LLC's key business activities. The results of the firm's capital stress tests reflect these risks:

Compliance and Operational Risk	▪ *Operational risk:* Inadequate or failed internal processes, people and systems, or external causes which have an impact to UBS, its clients or the markets in which it operates. Operational risk incorporates conduct risk, i.e., the risk that the conduct of the firm or its individuals unfairly impacts clients or counterparties, undermines the integrity of the financial system or impairs effective competition to the detriment of consumers. ▪ *Compliance risk:* The financial or reputational risk incurred by UBS by not adhering to the applicable laws, rules and regulations, local and international best practice (including ethical standards) and UBS's own internal standards.
Legal Risk[1]	• The financial risk resulting from a contract or any rights under or connected to the contract such as a right of set-off or a right conferred by security arrangements not being enforceable or the inability or failure to assert non-contractual rights such as intellectual property rights, and the financial or reputational risk resulting from UBS being held liable for a contractual or legal claim, or otherwise being subject to a penalty or liability in a legal action, based on a contractual or other legal claim, violation of law, or regulation, or infringement of intellectual property rights; or the failure to manage litigation, other dispute resolution proceedings, or other actions, including legal or regulatory enforcement actions appropriately or effectively.
Business Risk	• The potential negative impact on earnings from lower-than-expected business volumes and / or margins, to the extent they are not offset by a decrease in expenses.
Reputational Risk[2]	• The risk of damage to our reputation from the point of view of our stakeholders, such as clients, shareholders, staff and the general public.

1. Legal risks are captured under the Compliance and Operational Risk category.
2. Reputational risk may arise from any of the risks to which UBS is exposed; therefore, it is addressed and evaluated through the individual risk categories.

Forecasting Methodologies – Company-Run Severely Adverse Scenario

Overview

- The AH LLC capital ratios under the Company-Run Severely Adverse Scenario reflect the effect of the hypothetical macroeconomic and market environment (described on page 5) on sources and uses of capital as well as market, credit and operational risk loss projections.
- Under the Company-Run Severely Adverse Scenario, AH LLC developed forecast methodologies to estimate the impact of the hypothetical assumptions over the forecast time horizon.

Pre-Provision Net Revenue ("PPNR")

- The AH LLC forecast reflects a detailed process in which each major business developed a projection of PPNR over the nine-quarter forecast horizon using a mix of quantitative models, qualitative estimates, and expert judgment-driven approaches.

Losses

- The IHC's loss projection processes and methodologies consider all identified material risks. These estimation methodologies stress the IHC's material exposures to credit, market, and operational risks. The estimation of losses is a key component of the capital planning process and is executed using both quantitative and qualitative projection methodologies. Loss estimation methodologies are organized to cover the exposures below:
  - Banking Book (Retail and Wholesale credit, Securities)
  - Operational risk
  - Trading
  - Counterparty credit risk
- Losses for the banking book are mainly calculated through an expected loss framework, using stressed probability of default, loss given default and exposure at default under various scenarios. Losses for securities-backed lending were projected using a structural loan-level model.
- Operational Risk's methodology to project operational losses employs a quantitative approach based on historical losses and a qualitative approach based on estimates of forward looking losses.
- Trading and counterparty losses are estimated by applying market shocks to the positions in the portfolio, taking into account asset correlations and portfolio concentration.

Balance Sheet

- Balance sheet forecasts were developed based on a product-specific projection approach using quantitative regression based models, which are sensitive to macroeconomic factors and project behaviors across scenarios, and supported by expert judgment -based assumptions.

Risk-Weighted Assets

- RWA is projected under the Basel III standardized approach.
- Credit risk RWA: Risk weights as prescribed by regulatory rules are applied to projected balances.
- Market Risk RWA: Simulation calculations and forecasting frameworks used, as appropriate, to project computation of RWA for general VaR, stressed VaR, specific risk add-ons, and De Minimis exposures.

Capital Position

- The AH LLC capital position was projected by aggregating revenue, loss estimates, balance sheet and RWA projections as outlined above and deriving their respective impacts on the levels of Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital and their respective ratios on a quarterly basis over the nine-quarter forecast horizon.