

# 2019 Mid-Cycle Dodd-Frank Act Company-Run Stress Test (DFAST)

Filed with Board of Governors of the Federal Reserve System on October 4<sup>th</sup>,  
2019



# Cautionary Statement

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This 2019 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 Americas Holding LLC, based on a hypothetical, severely adverse economic scenario produced by Americas Holding LLC and 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 ("PPNR"), income, capital, risk-weighted assets ("RWAs"), capital or leverage ratios outcomes as a measure of the solvency or actual financial performance or condition of Americas Holding LLC. 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 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 Mid-cycle Dodd-Frank Act Stress Test

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- The stress testing regulation of the Board of Governors of the Federal Reserve System ("Federal Reserve") requires firms subject to the annual stress testing requirement to conduct a semi-annual stress test using three internally developed scenarios (e.g., Baseline, Adverse, and Severely Adverse) which must be submitted to the Federal Reserve by October 7<sup>th</sup>, 2019.<sup>1</sup>
- Firms must also publicly disclose the results of their company-run stress tests, under their internally developed severely adverse stress scenario, the "Company-Run Internal Severely Adverse Scenario", by November 4<sup>th</sup>, 2019.<sup>1</sup>
- Covered companies must disclose capital and leverage ratios projected by the company under their internal severely adverse stress scenario, which describes the hypothetical evolution of certain specific macroeconomic and market variables consistent with a severely adverse recession. The principal assumptions in the 2019 Company-Run Internal Severely Adverse Scenario are described on page 3.
- The planning horizon begins with UBS Americas Holding LLC's ("AH LLC") actual position as of June 30<sup>th</sup>, 2019 and includes a nine quarter forecast beginning with the third quarter of 2019 and ending with the third quarter of 2021.
- AH LLC is required to assume the following capital actions (the "Dodd-Frank Act Stress Testing Capital Actions") to estimate its projected capital level and ratios over the nine quarter forecast horizon:
  - Actual capital actions completed for the first quarter of the planning 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 Internal Severely Adverse stress scenario assuming the Dodd-Frank Act Stress Testing Capital Actions enumerated above, are presented on pages 4 through 8.
- AH LLC includes both a global market shock component and the impact of an instantaneous default of AH LLC's largest counterparty in the Company-Run Internal Severely Adverse Scenario.
  - For the company-run stress projections AH LLC estimates trading and counterparty losses using a company-run market risk shock that is applied to the Firm's exposures as of June 30<sup>th</sup>, 2019.
  - For the company-run stress projections AH LLC includes a counterparty default scenario, which estimates and reports potential losses associated with an instantaneous default of the counterparty that would generate the largest losses across its derivative and securities financing transactions ("SFTs") by applying the global market shock to exposures as of June 30<sup>th</sup>, 2019.

# Description of the Company-Run Internal Severely Adverse Stress Test Scenario

**The Company-Run Internal Severely Adverse Scenario is characterized by a severe global recession accompanied by a period of heightened stress in commercial real estate markets and corporate debt markets. The scenario is assumed to begin in Q3 2019.**

- Real US GDP declines by 6.6 percent from its pre-recession highs and the unemployment rate increases to 9.5 percent. Consumer price inflation falls to about -1 percent at an annual rate in the fourth quarter of 2019, and deflation continues through the first half of 2021.
- Policy rates are cut in response to the severe decline in real activity, resulting in a 2 percentage point fall in 3-month Treasury yields, which remain near zero through the end of the scenario. The 10-year Treasury yield falls by a somewhat smaller amount, resulting in a mildly steeper yield curve. The 10-year Treasury yield reaches a trough of about 1.1 percent in the first quarter of 2020 and rises gradually thereafter to about 1.4 percent by the third quarter of 2021.
- Financial conditions in corporate and real estate lending markets are stressed severely. The spread between yields on investment-grade corporate bonds and yields on long-term Treasury securities widens to 5½ percentage points by the first quarter of 2020, an increase of 4 percentage points relative to the second quarter of 2019.
- The S&P 500 index falls 56% by the first quarter of 2020, accompanied by a rise in the VIX, which reaches a peak of 77. House prices and commercial real estate prices also experience large declines of about 30 percent and 25 percent, respectively.

# UBS Americas Holding LLC Mid-cycle Dodd-Frank Act Stress Test – Risk Based Capital Ratio, RWA and Leverage Ratio Projections

## Actual Q2 2019 and Projected Capital Ratios<sup>1</sup> through Q3 2021 Under the Company-Run Internal Severely Adverse Scenario

Regulatory Ratio	Actual Ratio at 06/30/19 <sup>2</sup>	Hypothetical Stressed Ratios at 09/30/21	Hypothetical Stressed Minimum Ratios	Regulatory Minimum <sup>3</sup>
Common Equity Tier 1 Ratio (%)	23.9	12.2	12.2	4.5
Tier 1 Capital Ratio (%)	27.9	18.0	18.0	6.0
Total Capital Ratio (%)	29.3	19.4	19.4	8.0
Tier 1 Leverage Ratio (%)	12.2	7.4	7.4	4.0

Risk-Weighted Assets <sup>4</sup>		
in USD billion	Actual RWA at 06/30/19 <sup>2</sup>	Hypothetical Stressed RWA at 09/30/21
US Basel III RWA	53.9	52.7

<sup>1</sup>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 2019 to Q3 2021.

<sup>2</sup>As reported in UBS Americas Holding LLC Form FR Y-9C as of June 30, 2019.

<sup>3</sup>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.

<sup>4</sup>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 Act Stress Test

## Projected Pre-Provision Net revenue, Losses and Net (Loss)/Income Before Taxes from Q3 2019 through Q3 2021 Under the Company-Run Internal Severely Adverse Scenario

in USD millions	Cumulative Results Over 9 Quarters	% of Average Assets
PPNR <sup>1</sup>	-\$1,997	-1.4%
Less:		
Provision for Loan and Lease Losses	\$742	
Realized Losses (Gains) on Securities (AFS/HTM)	-\$61	
Trading and Counterparty Losses <sup>2</sup>	\$1,340	
Other Losses <sup>3</sup>	\$127	
Net Income Before Taxes	-\$4,145	-2.9%

<sup>1</sup>Pre-provision net revenue includes losses from operational-risk events.

<sup>2</sup>Trading and counterparty losses include mark-to-market losses, changes in credit valuation adjustments, incremental default losses and interim market risk components.

<sup>3</sup>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 Act Stress Test

## Projected Loan Losses by Type of Loan from Q3 2019 through Q3 2021 Under the Company-Run Internal Severely Adverse Scenario

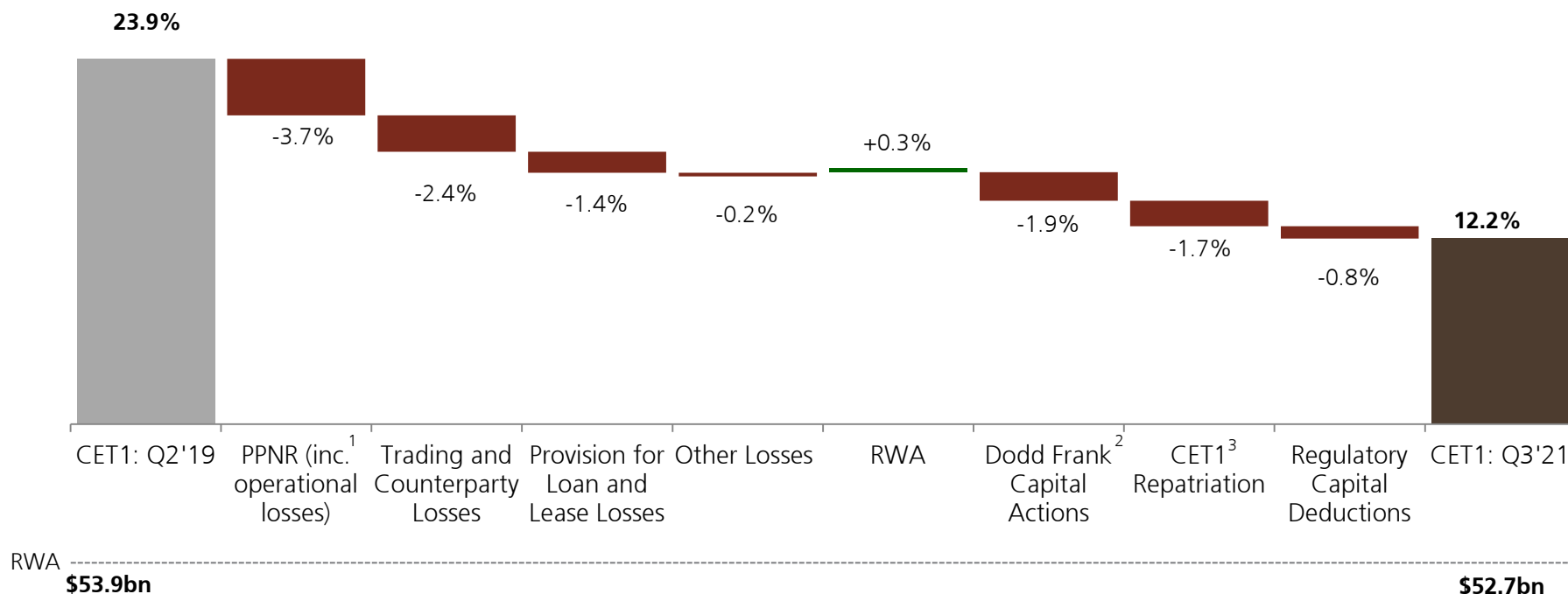
Loan Type <sup>1</sup> in USD millions	Cumulative Results Over 9 Quarters	Portfolio Loss Rates Over 9 Quarters
Estimated Loan Losses	\$695	1.4%
First Lien Mortgages, Domestic	\$304	1.9%
Junior Lien Mortgages, Domestic	\$0	0.0%
Commercial and Industrial	\$4	0.1%
Commercial Real Estate	\$10	6.3%
Credit Cards	\$25	11.5%
Other Consumer	\$131	0.6%
Other Loans	\$222	2.6%

<sup>1</sup>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 Dodd-Frank Stress Test

## Key Drivers of Common Equity Tier 1 Capital Ratio ("CET1") Under the Company-Run Internal Severely Adverse Scenario



<sup>1</sup>As reported in UBS Americas Holding LLC Form FR Y-9C as of June 30<sup>th</sup>, 2019

<sup>2</sup>Dodd Frank Capital Actions reflect cash dividends declared on preferred and common stock in accordance with the assumptions prescribed in the Dodd-Frank Act Stress Testing Capital Actions, which are outlined on page 2 of this presentation.

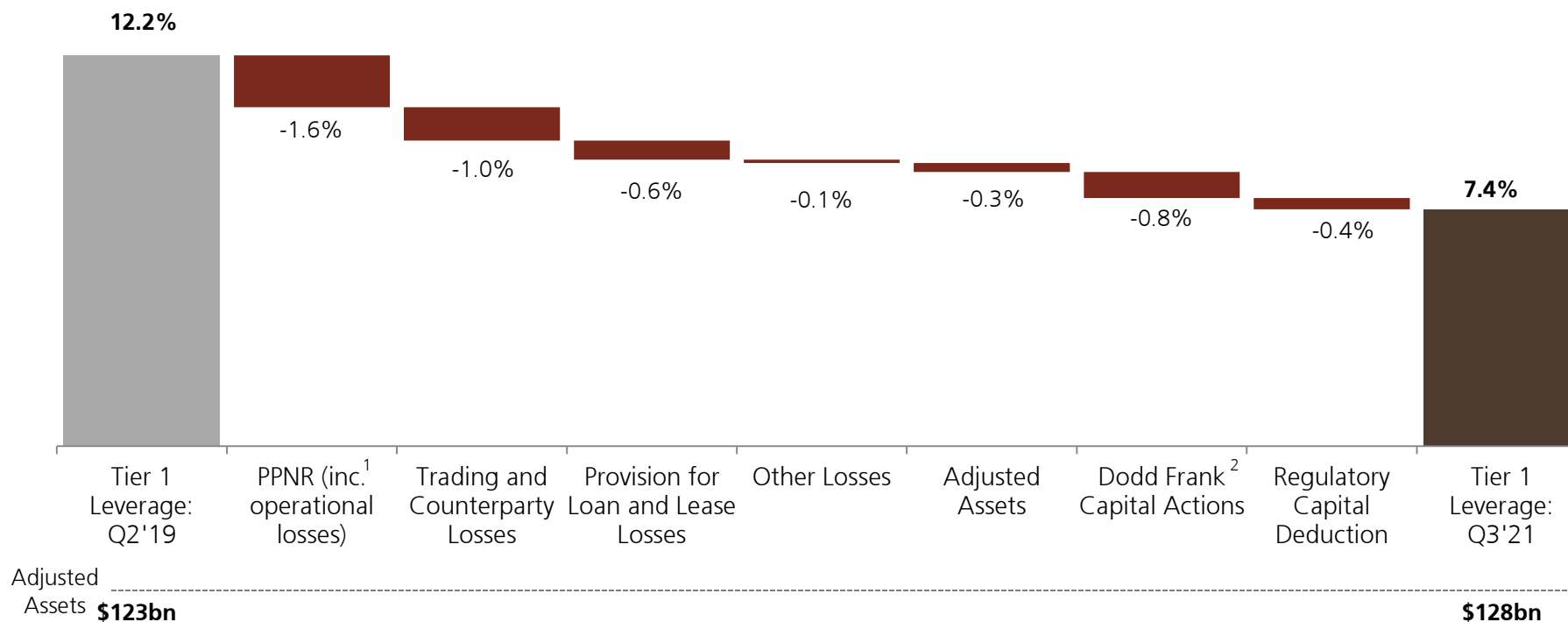
<sup>3</sup>\$0.9bn CET1 Capital was repatriated in exchange of \$0.9bn AT1 Capital in September 2019.





# UBS Americas Holding LLC Dodd-Frank Stress Test

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



<sup>1</sup>As reported in UBS Americas Holding LLC Form FR Y-9C as of June 30<sup>th</sup>, 2019

<sup>2</sup>Dodd Frank Capital Actions reflect cash dividends declared on preferred and common stock in accordance with the assumptions prescribed in the Dodd-Frank Act Stress Testing Capital Actions, which are outlined on page 2 of this presentation.

# Material risks impacting capital adequacy assessment projections

The below risks are those inherent in the Firm's business activities and its capital stress tests reflect these risks:

<b>Business Risk</b>	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.
<b>Compliance and Operational Risk</b>	<p><i>Operational risk:</i> 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.</p> <p><i>Compliance risk:</i> The financial or reputational risk incurred by AH LLC by not adhering to the applicable laws, rules and regulations, local and international best practice (including ethical standards) and AH LLC's own internal standards.</p>
<b>Credit Risk</b>	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, and includes country risk.
<b>Investment Risk</b>	The risk arising from co-investments in UBS Asset Management sponsored funds and from infrastructure and commercial equity holdings.
<b>Legal Risk</b>	The risk of AH LLC being held liable for a breach of applicable law, rule or regulation, contractual or other legal obligations, or inability or failure to enforce or protect contractual or non-contractual rights sufficiently to protect AH LLC's interests. It also includes the failure to adequately develop, supervise and resource internal and external legal teams and failure to adequately manage any potential, threatened and commenced litigation and legal proceedings.
<b>Market Risk</b>	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 indirectly observable, such as volatilities and correlations.
<b>Model Risk</b>	The risk of adverse consequences resulting from decisions based on incorrect or misused model outputs and reports, or from inadequate model governance frameworks or inadequate model risk reporting.
<b>Pension Risk</b>	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 defined benefit pension funds and 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) or changes to plan designs.
<b>Reputational Risk</b>	The risk of damage to our reputation from the point of view of our stakeholders, such as clients, shareholders, staff and the general public.
<b>Treasury Risk</b>	The risk of increased cost or reduced access to funding sources. It includes liquidity risk, funding risk and interest rate risk in the banking book.

# Forecasting Methodologies – Company-Run Internal Severely Adverse Scenario

- AH LLC's projected capital ratios under the Company-Run Internal Severely Adverse Scenario (described on page 3) reflects the effect of the hypothetical macroeconomic and market environment on sources and uses of capital as well as market, credit and operational risk loss projections.
- Under the AH LLC's Internal Severely Adverse Scenario, AH LLC developed the following forecast methodologies to estimate the impact of the hypothetical assumptions over the nine quarter forecast time horizon.

## PPNR

- AH LLC's 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

- AH LLC's loss projection processes and methodologies consider all identified material risks. These estimation methodologies project 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 primarily calculated through an expected loss framework, using stressed probability of default, loss given default, and exposure at default. Losses for AH LLC's securities-backed lending portfolio are calculated through security-level revaluation of collateral followed by an approximation of the margining process.
- 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 losses are derived as a function of the global market shock component (described on page 2) and the market risk exposures in the AH LLC's Trading Book. The Trading Incremental Default Risk ("IDR") result is computed as an incremental loss arising from issuer defaults following the large calculation.
- Counterparty losses are derived as a function of the Instantaneous Shock Scenario and measured as credit valuation adjustment ("CVA") impacts under stress and the impact from AH LLC's counterparty default scenario (described on page 2). Further counterparty losses are derived from the effect of the Company-Run Internal Severely Adverse scenario on nostros, derivatives, and SFTs.

## Balance Sheet

- Balance sheet forecasts were developed based on a product-specific projection approach using quantitative regression-based models, which are sensitive to the macroeconomic factors and project behaviors associated with the Company-Run Internal Severely Adverse scenario conditions, which are supported by expert judgment-based assumptions.

## Risk-Weighted Assets ("RWAs")

- The RWA results presented herein do not include the impact of the federal bank regulatory agencies simplification rule, which will be effective as of April 1, 2020.
- RWAs are 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 are used, as appropriate, to project computation of RWA for general Value at Risk ("VaR"), stressed VaR, specific risk add-ons, and De Minimis exposures.

## Capital Position

- AH LLC's 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 CET1 Capital, Tier 1 Capital and Total Capital and their respective ratios on a quarterly basis over the nine-quarter forecast horizon.

