# First Hawaiian Bank Dodd-Frank Act (DFA) 2017 Stress Test Results

October 19, 2017



## First Hawaiian Bank DFA Stress Test Results – SUMMARY

The purpose of the Dodd-Frank Act stress test, which is jointly administered by the three major federal banking regulators (the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation), is to assess the capital adequacy of participating banks and bank holding companies.

This is done by requiring each participating bank to produce a forward-looking 9-quarter forecast of the major elements of its balance sheet and income statement – loans and deposits, interest and fee revenue, expenses, loan losses, provisions for loan losses, and capital position as measured by several key capital ratios – in three regulator-prescribed macroeconomic scenarios.

One of these scenarios – the Severely Adverse scenario – assumes a deep global recession that would have a severe financial impact on U.S. banks. The regulators are seeking to learn from the stress test whether any key capital ratios of any of the participating banks would fall below regulatory minimums in this scenario.

The 2017 DFA stress test results for First Hawaiian Bank ("FHB") indicate that none of its key capital ratios would fall below regulatory minimums in the Severely Adverse scenario; in particular, FHB's Tier 1 risk-based capital ratio is forecast to decline from 12.51% as of December 31, 2016 to 11.28% as of March 31, 2019, remaining significantly above the "well-capitalized" regulatory threshold of 8.00%.

The remainder of this presentation includes an overview of FHB, a description of FHB's DFA stress test including a summary of the Severely Adverse scenario, explanations of risks included and methodologies used in FHB's DFA stress test, FHB's stress test results in the Severely Adverse scenario, and information regarding the most significant causes for changes in FHB's Tier 1 risk-based capital ratio in the Severely Adverse scenario.



First Hawaiian Bank ("FHB" or "the Bank"), founded in 1858, is Hawai'i's oldest and largest financial institution. The bank has 57 branches throughout Hawai'i, three in Guam and two in Saipan. It offers a diversified range of banking services to consumer and commercial customers, including deposit products, lending services and wealth management, insurance, private banking and trust services.

- FHB is the top bank in Hawaii in terms of assets, deposits, loans, profitability and capital. Total assets as of December 31, 2016 were \$19.614 billion with deposits at \$16.810 billion and total loans of \$11.524 billion.
- FHB is strongly capitalized by national standards, with capital ratios that are substantially above the regulatory Prompt Corrective Action "well-capitalized" minimums.
- FHB ranks in the top tier of all major U.S. banks in terms of credit quality. Our non-performing assets as a percentage of total assets are the lowest in Hawaii and among the best in the U.S.

The Bank's parent company is First Hawaiian Inc. ("FHI") which is listed on the Nasdaq Global Select Market as "FHB". FHI is an approximately 62%-owned subsidiary of BancWest Corporation, an indirect wholly-owned subsidiary of BNP Paribas ("BNPP"), a global financial services company.



Regulations implementing the Dodd-Frank Act require FHB to conduct an annual "stress test" that assesses the potential impact of three regulator-prescribed macroeconomic scenarios – Baseline, Adverse, and Severely Adverse – on its losses, revenues, balance sheet, and capital, and to publicly disclose the stress test results.

The Bank projects financial results over a nine quarter forecast horizon, starting January 1, 2017 and ending on March 31, 2019. With respect to capital actions, the projections assume continued quarterly dividend payments to FHI shareholders at the current per-share amount in all quarters of the forecast horizon. Assumed capital actions are solely for stress testing purposes and may differ from the Bank's planned and/or actual capital actions.

#### FHB is required to disclose the following information regarding stress test results in the Severely Adverse scenario:

- Description of risks included and methodologies used in stress test
- Aggregate cumulative financial estimates of pre-provision net revenue (PPNR), loan and lease losses, provisions for loan and lease losses, and net income
- Pro forma forecasts of regulatory capital ratios
- An explanation of the most significant causes for changes in regulatory capital ratios

The DFA stress tests produce projections of hypothetical results and are not intended to be forecasts of expected or most likely outcomes. The stress test scenarios are designed by regulators to help assess the strength and resilience of financial institutions in the event of severe economic and financial environments. Summary information regarding the Severely Adverse Scenario is included in this disclosure. For additional information on this scenario, please refer to the 2017 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, published by the Federal Deposit Insurance Corporation on February 6, 2017. Any differences in the presentation of information contained herein relative to how such information is presented for other purposes is solely due to FHB's efforts to comply with the DFAST requirements.



## Description of the Severely Adverse Scenario

The Severely Adverse Scenario describes a severe global recession that is accompanied by a period of heightened stress in corporate loan markets and commercial real estate markets.

#### **Gross Domestic Product and Unemployment**

U.S. Real GDP begins to decline in the first quarter of 2017 and reaches a trough in the second quarter of 2018 that is about 6.5% below the pre-recession peak. The unemployment rate increases by about 5.25 percentage points, to 10%, by the third quarter of 2018.

#### **U.S. Real Estate and Equity Prices**

Commercial real estate prices fall 35% and residential real estate prices decline by 25% nationally. Equity prices fall by 50% through the end of 2017 with a corresponding surge in volatility that approaches the levels attained in 2008.

#### **Inflation and Interest Rates**

Annualized consumer price inflation falls to about 1.25% by the second quarter of 2017 and then rises to about 1.75% by the middle of 2018. Short-term Treasury rates fall to near zero by mid-2017 and remain near zero throughout the scenario. The yield on the 10-year Treasury Note drops to 0.75% in the first quarter of 2017, rising gradually thereafter to around 1.5% by the first quarter of 2019. The investment grade bond spread to Treasury securities jumps to 5.50% by the end of 2017, an increase of 3.5% relative to the fourth quarter of 2016. The spread between mortgage rates and 10-year Treasury yields widens to over 3.5% over the same time period.

#### Recovery

GDP returns to growth in the 8th quarter, inflation remains muted, and unemployment shows initial signs of improvement by the end of scenario. However, still-elevated absolute unemployment, near zero short-term interest rates, and investment grade bond and mortgage spreads that remain above their levels at the start of the scenario describe a less than complete recovery.



CREDIT	Risk of loss resulting from the failure of a borrower or counterparty to honor its financial or contractual obligations to the Bank.
LIQUIDITY	Risk that the Bank is unable to liquidate assets to satisfy debt or deposit obligations as they come due or fund increases in assets.
MARKET VALUATION	Risk of loss due to a decline in market sensitive items or items recorded at fair value. Includes interest rate risk, which is the potential for changes in interest rates to reduce Bank earnings due to assets (such as loans) coming due or maturing at a different time than liabilities (such as deposits).
OPERATIONAL	Risk of loss from external events or inadequate or failed internal processes, people or systems. This risk includes idiosyncratic events such as disruption in Information Technology (IT) systems, errors and omissions in processes, and fraudulent activity by internal and external parties, and natural disasters.



# Pre-Provision Net Revenue (PPNR) Risks and Methodologies

Severely Adverse Scenario Aggregate 9-Quarter PPNR: \$529 million (January 1, 2017 – March 31, 2019)

Scope	<ul> <li>Net interest income</li> <li>Noninterest income and other fee related revenues excluding realized gains on investment securities</li> <li>Noninterest expense which includes losses associated with operational risk</li> </ul>
Approach	<ul> <li>Loan balances are forecast by loan type in each scenario; deposit balances are forecast by major category (retail, wholesale) in each scenario</li> <li>Securities balances are estimated by deducting loan balances from deposit balances</li> <li>Net interest income is derived by applying interest rates, margins and yields assumed in each scenario against loan, deposit, and securities balances</li> <li>Non-interest income is forecast across 14 sub-categories (trust fees, card interchange fees, etc.)</li> <li>Non-interest expense is forecast across 11 sub-categories (salaries, benefits, occupancy expense, etc.)</li> </ul>
Types of Risks Captured	<ul> <li>Liquidity</li> <li>Interest Rate</li> <li>Operational</li> </ul>
Methodologies	<ul> <li>Statistical models, developed from historical data and independently evaluated, produce the major balance forecasts and most material non-interest income and non-interest expense forecasts</li> <li>Qualitative models, based primarily on expert judgment assumptions, produce less material forecasts</li> <li>Operational losses are based on historical experience and scenario analysis</li> </ul>



# Provision for Loan/Lease Losses Risks and Methodologies

Severely Adverse Scenario Provision for Loan/Lease Losses: \$288 million (January 1, 2017 – March 31, 2019)

Scope	Represents inherent credit-related loss retained in the Bank's loan portfolios and related commitments
Approach	<ul> <li>Expected loss forecasts are estimated at the loan level for each of the Bank's major loan portfolios         <ul> <li>Forecasts are benchmarked against actual "worst 9 quarter" losses incurred in past recessions</li> <li>Forecasts are subject to qualitative adjustments by management to ensure adequate stress</li> </ul> </li> <li>Loss forecasts are used to set target loan loss reserve levels sufficient to cover all projected losses</li> <li>Provision forecasts are based on the amounts required to achieve target loan loss reserve levels</li> </ul>
Types of Risks Captured	• Credit
Methodologies	<ul> <li>Loss forecasts are not computed using banking industry average loss rates, but rather are produced from statistical models based on the Bank's own historical data and selected industry data, which better capture the inherent and idiosyncratic characteristics of the Bank's portfolio</li> <li>Losses that cannot be forecast with statistical models are projected with qualitative expert judgment based models</li> <li>The target loan loss reserve levels are estimated in accordance with accounting standards, regulatory guidance and the Bank's internal accounting policies</li> </ul>



# Capital Ratio Projections Risks and Methodologies

Severely Adverse Scenario Common Equity Tier 1 Capital: \$1.405 billion (as of March 31, 2019)

Scope	<ul> <li>Common Equity Tier 1 ("CET1"), Tier 1 Capital ("T1C"), Total Risk-Based Capital and Tier 1 Leverage Ratios are computed on quarterly basis across the full 9-quarter forecasting horizon</li> <li>Granular forecast of risk-weighted assets</li> </ul>
Approach	<ul> <li>Full projection of balance sheet and income statement for each scenario</li> <li>Based upon Standardized Approach for Revised Regulatory Capital Guidelines (Basel III Standardized)</li> <li>On and off-balance sheet exposures were risk-weighted taking into account the loan and securities balances produced from statistical models and other forecasting approaches</li> <li>Includes impact of disallowed deferred tax asset (where appropriate)</li> <li>Robust internal controls and governance review</li> </ul>
Types of Risks Captured	<ul> <li>Liquidity</li> <li>Interest Rate</li> <li>Operational</li> <li>Credit</li> </ul>
Methodologies	<ul> <li>Accumulation of all of the Bank's statistical modeling and other processes for the forecast of the balance sheet, PPNR, losses and other elements</li> </ul>



## DFA Stress Test Severely Adverse Scenario Results

Projected Loan Losses by Loan Type for Q1 2017 through Q1 2019					
	Severely Adverse Scenario				
Loan Type	9-Quarter Losses in \$millions	9-Quarter Loss Rate <sup>(1)</sup>			
	211	1.8%			
First Lien Mortgages	9	0.3%			
Closed End Junior Liens	3	10.8%			
Home Equity Lines of Credit	14	1.3%			
Commercial and Industrial <sup>(2)</sup>	53	1.8%			
Commercial Real Estate	33	1.3%			
Auto Loans	35	3.8%			
Credit Cards	46	16.3%			
Other Consumer Loans	13	5.0%			
Other Loans <sup>(3)</sup>	5	0.7%			

Note: Totals may not sum due to rounding

(1) Loss rates are calculated by summing the nine quarters of losses and dividing by the nine-quarter average balance for a given loan portfolio.

(2) Commercial and industrial loans include small- and medium-size enterprise loans and corporate cards.

(3) Other loans include equipment loans, equipment leases and loans secured by farmland.



## DFA Stress Test Severely Adverse Scenario Results (Cont.)

Calculated Capital Ratios <sup>(1)</sup>				
	Actual	Stressed Capital Ratios – Severely Adverse		Well-Capitalized
	4Q16 (%)	1Q19 (%)	Lowest (%) <sup>(2)</sup>	Requirements (%) <sup>(3)</sup>
Common Equity Tier 1 Ratio	12.51	11.28	11.28	6.50%
Tier 1 Capital Ratio	12.51	11.28	11.28	8.00%
Total Capital Ratio	13.62	12.54	12.54	10.00%
Tier 1 Leverage Ratio	8.19	7.76	7.76	5.00%

First Hawaiian Bank Cumulative 9-Quarter Metrics (January 1, 2017 – March 31, 2019)			
(\$ in millions)	Severely Adverse		
Pre-provision net revenue	\$529.2		
Other revenues	\$0		
Provision for loan/lease losses	(\$287.9)		
Net income before taxes	\$241.3		
Net income after taxes	\$158.9		

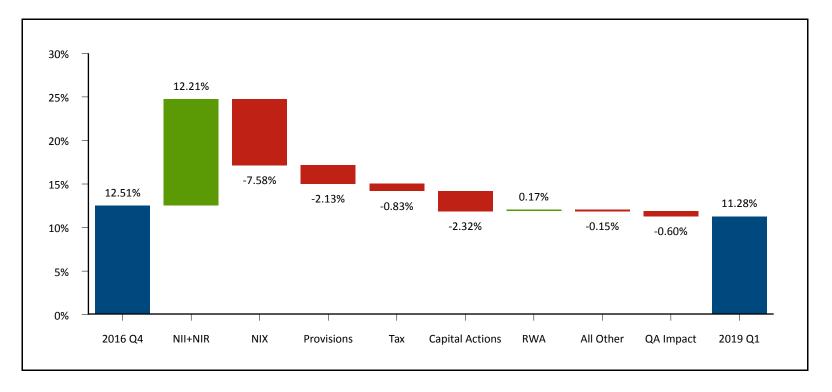
(1) Risk-weighted assets were calculated under the Basel III standardized capital risk-based approach that took effect on January 1, 2015.

(2) Lowest capital ratio over the nine-quarter projection horizon.

(3) Requirements to be well-capitalized under prompt corrective action provision. These ratios are in excess of the minimum requirements for the FDIC's capital adequacy purposes.



### Causes of 9-Quarter Change in Tier 1 Risk Based Capital Ratio – Severely Adverse Scenario



Over the 9-quarter forecast horizon, the largest impact on the Tier 1 risk based capital ratio is the combination of net interest income and non-interest revenue, which raises the ratio by 1,221 basis points.

This is offset by the impact of non-interest expense, which lowers the ratio by 758 basis points; capital actions (payment of dividends), which lowers it by 232 basis points; and provisioning for loan and lease losses, which lowers it by 213 basis points.



This document contains forward-looking statements, including projections of First Hawaiian Bank's financial results and condition and capital ratios under a hypothetical scenario that incorporates a set of assumed economic and financial conditions prescribed by our regulators, which are more adverse than expected. The projections are not intended to be our forecast of expected future economic or financial conditions or our forecast of the Bank's expected future financial results or condition, but rather reflect possible results under the prescribed hypothetical scenario. Our actual future financial results and condition could differ materially from the results reflected herein and will be influenced by actual economic and financial conditions and other factors described in First Hawaiian, Inc.'s reports filed with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the Year Ended December 31, 2016. In addition, if this scenario described above, or one comparable, were to occur, First Hawaiian Bank could either under-perform or over-perform relative to the presented results. First Hawaiian Bank assumes no obligation to update any forward-looking statements contained herein.

