



Zions Bancorporation & ZB, N.A.

Dodd-Frank Act Company-Run Capital Stress Test Disclosure

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Introduction

Zions Bancorporation ("the Company" or "Zions") is one of the nation's premier financial services companies with total assets of approximately \$65 billion. Zions operates under local management teams and unique brands in 11 western states: Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, Washington and Wyoming. The company is a national leader in Small Business Administration lending and public finance advisory services, and is a consistent top recipient of Greenwich Excellence awards in banking. In addition, Zions is included in the S&P 500 and NASDAQ Financial 100 indices. Investor information and links to local banking brands can be accessed at zionsbancorp.com.

Incorporated in this disclosure are the annual stress test results of both Zions Bancorporation and ZB, N.A. ("the Bank"), the Company's banking subsidiary. The total assets of ZB, N.A. represent 99.7% of the total assets of Zions Bancorp as of December 31, 2016. The risk profile between the two entities is consistent and, unless specified, the results and analysis in this document apply to both entities.

Zions' Dodd-Frank Act Stress Test (DFAST) results, based on the hypothetical *Supervisory Severely Adverse* scenario identified by the Federal Reserve Board, indicate Zions Bancorporation would maintain capital ratios at sufficient levels throughout the nine-quarter forecasting horizon.

In accordance with section 165(i)(2) of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), bank holding companies (BHCs) with total consolidated assets of \$50 billion or more ("Covered Companies") are annually required to create a set of forward-looking stress tests based upon hypothetical economic scenarios issued by the Federal Reserve Board (in addition to internal idiosyncratic economic scenarios). The estimated financial results of the stress test identify the hypothetical projected capital position of a corporation under severely adverse economic conditions to determine if there is sufficient capital to absorb losses and support operations.

For the DFAST forecasts, all BHCs are required to make uniform capital assumptions over the nine-quarter planning period, which include (i) no issuances or redemptions of regulatory capital instruments, (ii) quarterly common stock dividend distributions equal to the average of the prior four quarters, and (iii) capital instrument payments that must be equal to the previously stated expectations of dividends, interest, or principal payments.

Section 165(i)(2) of the Dodd-Frank Act also requires national banks and federal savings associations with total consolidated assets of more than \$10 billion to conduct annual stress tests. For 2017, Zions' flagship affiliate, ZB, N.A., was subject to this rule. Accordingly, ZB, N.A. conducted a Dodd-Frank company-run stress test under the supervisory scenarios and guidance provided by the Office of the Comptroller of the Currency (OCC). These scenarios were the same as those promulgated by the Federal Reserve.

Pursuant to CFR §252.148, the following summary is a disclosure of the results of the stress test of Zions Bancorporation and ZB, N.A. Included is a discussion of the macroeconomic scenarios, a summary of results, risks accounted for, and methodologies used in development of the stress testing. The quantitative output included herein should not be viewed as forecasts of expected outcomes or capital ratios or as a measure of the company's solvency or actual financial performance or condition.

Process

Zions administers its company-run stress tests through its Capital Adequacy Process (CAP). The CAP identifies and quantifies the company's material risks under different hypothetical risk events prescribed by the Severely Adverse Scenario. Zions considers all risks in stress testing that have been determined to be material based upon sensitivity analysis; in addition it considers whether certain risks deemed individually to be immaterial could collectively be material. These risks range from idiosyncratic risks (geographical footprint and industry concentrations in credit portfolios) to broad economic, political, and regulatory and compliance risks that Zions believes could impact the Company. Zions' stress testing models and other estimation techniques attempt to capture substantially all of these risks and their potential effects on the performance of the company's portfolios and revenue generating activities.

Risks

Zions' stress testing process is designed to be comprehensive in addressing the risks faced by the company. Risks considered as part of this analysis include credit, market, funding/liquidity, general economic conditions, operational, legal and compliance, as well as the potential for reputational and strategic risks. These risks are described below:

Credit risk includes obligor default risk, counterparty credit risk, guarantor non-performance, credit risk of securities held, and collateral management risk. Zions believes credit risk is its primary risk.

Zions' business is subject to periodic fluctuations based on national, regional and local economic conditions. These fluctuations are not predictable, cannot be controlled, and may have a material adverse impact on Zions' operations and financial condition even if other favorable events occur. Zions' banking operations are locally oriented and predominantly community-based. Accordingly, Zions is dependent on local business conditions as well as conditions in the local residential and commercial real estate markets it serves. For example, an increase in unemployment, a decrease in real estate values or increases in interest rates, as well as other factors, could weaken the economies of the communities Zions serves. Weakness in Zions' market area could depress its earnings and its financial condition.

Any of the above scenarios could require Zions to charge off a higher percentage of loans and/or increase provisions for credit losses, which would reduce Zions' net income. For example, while the credit conditions that Zions experienced from 2007 through 2010 have improved considerably, challenges in the economy still present credit deterioration risks for Zions in light of the slow pace of general economic activity. Any further credit deterioration may result in increased loan charge-offs and higher provisions for credit losses, which would negatively impact Zions' net income.

There continues to be concern in the marketplace regarding the possibility of a return to recessionary conditions, as well as increased turmoil or volatility in the financial system. Zions is part of the financial system and a systemic lack of available credit, a lack of confidence in the financial sector, continued volatility in the financial markets and/or reduced business activity could have a materially adverse effect on Zions' business, financial condition and results of operations.

Market risk includes risk arising from changes in interest rate levels, equity prices, property prices, commodity prices, and credit spreads. Zions' earnings and financial condition are largely dependent on net interest income, which is the difference between interest earned from loans and investments and interest paid on deposits and borrowings. The narrowing of interest rate spreads could adversely affect Zions' earnings and financial condition. Zions cannot control or predict changes in interest rates. Regional and local economic conditions, competitive pressures and the policies of regulatory authorities, including monetary policies of the Board of Governors of the Federal Reserve System, affect interest income and interest expense. Changes in interest rates may have an adverse effect on Zions' profitability. For example, high interest rates could adversely affect Zions' mortgage banking business as

clients would apply for fewer mortgages; higher interest rates may also increase credit risk. The *Supervisory Severely Adverse* scenario includes interest rate assumptions projected to cause a significant decrease in net interest income.

Funding/liquidity risk may arise from such things as the inability to access funding sources (e.g., deposits), funding maturity mismatches, off-balance sheet commitments, deteriorating earnings performance, public or market perception, and obstacles to cash movement among subsidiaries.

Liquidity is essential to Zions' businesses. Market disruption and volatility could materially impair Zions' ability to access capital and funding. Economic losses sustained as a result of market disruption or poor general economic conditions would likely lead to higher loan and securities losses and reduced fee income, primarily from slower economic activity.

General economic condition risk results from changes in national, regional and local economic conditions and deterioration in the geographic and financial markets where Zions operates. These could lead to higher loan charge-offs, deposit run-off, reduced fee income and higher operating costs, which would reduce Zions' net income level and growth.

Operational risk includes such things as internal fraud; external fraud; inadequate employment practices and workplace safety; inability to meet some contractual and/or fiduciary obligations; damage to physical assets; business disruption and/or systems failures; and failures in execution, delivery, and process management.

Legal and compliance risk includes such things as capital management and stress testing regulations; failure to comply with laws, rules, regulations, accounting and financial reporting laws; prescribed practices; internal policies and procedures; exposure to litigation; failure to identify and properly communicate regulatory and legal requirements; and situations where the laws or rules may be ambiguous or untested.

Reputational risk includes such things as failure to meet market expectations, poor financial performance, customer dissatisfaction and complaints, and poor public communication.

Strategic risk includes such things as adverse business decisions, poor implementation of business decisions, and lack of responsiveness to changes in the industry and operating environment.

Model (including data) risk includes the risk of losses or other adverse consequences resulting from decisions based on incorrect or misused model inputs and reports. Model risk is mitigated through sound model testing and development standards as well as independent model validations and model performance monitoring.

Methodologies

As part of its CAP, the Company projects the impact of its key exposures and material risks in several scenarios including the *Supervisory Severely Adverse* scenario using a variety of modeling techniques.

Methodologies used include:

1. The Company models credit losses using separate loan-level loss models for Commercial & Industrial (C&I), Small Business, Residential Real Estate (RRE), Energy, Commercial Real Estate (CRE), Auto, Credit Card, Agriculture, and other loan portfolio. Portfolio level models for other categories include municipal securities, Small Business Administration securities, and counterparty credit risk.
2. Market risk is captured through interest rates used in Pre-Provision Net Revenue (PPNR) models; equity prices through PPNR and credit models, and the private equity model; energy commodity prices are directly stressed through the scenario design process that is a direct input into the energy loss model; credit spreads impact the loan growth and pricing models; and real estate prices are used in PPNR, CRE, RRE, and C&I models.
3. Liquidity risk is measured through liquidity stress test scenarios and the parent liquidity model; asset/liability model; unfunded commitments included in credit loss models; and earnings impacts through PPNR projections.
4. Operational risk is captured through the operational loss model via historical loss data and scenario analysis.
5. Legal risk is captured through scenario analysis, the operational loss model, and specific litigation expense buffers.
6. Reputational and strategic risks are difficult to quantify; however, their potential impacts on capital are quantified using loss narratives and other techniques.
7. Potential model risk is captured through conservative model choices as well as overlays applied after the review of results that address model weaknesses and limitations.

Macroeconomic Scenario

Results contained in this report are based on the *Supervisory Severely Adverse* scenario distributed by regulatory agencies on February 10, 2017.¹ In this hypothetical scenario there is a substantial weakening of the world economy, with the U.S. economy experiencing increases in financial distress that are significantly greater than under more common economic downturns and recessions. The unemployment rate rises to 10% by the third quarter of 2017, and real GDP declines rapidly, with a maximum quarterly (annualized) decline of 7.5%. Housing prices fall dramatically with a peak-to-trough drop of 25.0% and commercial real estate prices fall further with a peak-to-trough drop of 34.6%. Interest rates on short-term benchmark indices remain near zero while spreads between the yields on investment-grade corporate bonds and the yields on long-term Treasury securities widen. In addition Zions stressed energy prices, with oil prices reaching \$33/barrel, a decline from the ~\$50/barrel it had been in the months leading up to the submission of the test. This is a similar percent decline Zions used in the 2016 DFAST submission.

¹ For more information please see the scenario descriptions in the document "2017 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule February 10, 2017" located at <https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20170203a5.pdf>

Summary of Results

The following data are the results submitted by Zions in its 2017 DFAST submission for the *Supervisory Severely Adverse* scenario. These results represent estimates of Zions' capital position as of Q1 2019 under this scenario, as well as the minimum ratios during the nine-quarter period. **This scenario is considered unlikely to occur; therefore, these estimates do not represent forecasts of expected results.** The economic assumptions used to arrive at these results involve an economic outcome that is significantly more adverse than current market expectations for the economy generally or for Zions specifically. The company frequently uses highly conservative assumptions.

Projected Capital Ratios in the Supervisory Severely Adverse Stress Scenario

	Actual as of Dec 31, 2016	Post-Stress as of March 31, 2019	Minimum ratio during hypothetical period
Zions Bancorporation			
Common Equity Tier 1	12.1%	9.6%	9.6%
Tier 1 Leverage Ratio	11.1%	8.0%	8.0%
Tier 1 Capital Ratio	13.5%	11.1%	11.1%
Total Risk-Based Capital Ratio	15.2%	12.8%	12.8%

Projected Net Loan Losses by Category¹ December 31, 2016 through March 31, 2019 in the Hypothetical Supervisory Severely Adverse Stress Scenario

	Cumulative Amount (\$ billions)	Cumulative 9-Qtr. Net Loss Rates
Zions Bancorporation		
Net Loan Losses	2.0	4.8%
Domestic closed-end first-lien mortgages	0.1	1.4%
Domestic junior lien mortgages and home equity lines of credit	0.0	1.9%
Commercial and industrial	0.8	8.1%
Commercial real estate	0.9	4.7%
Credit card exposures	0.0	7.6%
Other consumer	0.0	2.9%
Other loans	0.1	3.3%

¹ The table above utilizes regulatory classifications which vary from GAAP classifications

The total net loss rate of 4.8% compares to a 5.6% actual realized worst nine-quarter loss period, experienced as a result of the 2008-2009 recession. The credit loss results of the 2017 stress test are similar to the actual recent recession, although Zions has reduced risk materially by reducing construction and land development loans by approximately \$6 billion since December 2007. Therefore, Zions believes the 2017 modeled results are conservative.

In addition to the scenario provided by the Federal Reserve, Zions applies assumptions that are designed to capture risks that are unique or idiosyncratic to Zions' business; among others, the most notable is the price of oil, as Zions had \$2.2 billion of loan balances outstanding that are classified as

direct exposure to the oil and natural gas industries. Zions used an average price of oil per barrel during the nine-quarter period of \$35, which resulted in elevated losses, primarily captured in the Commercial and Industrial loan category, and thus explaining the elevated net loss rate for that category of 8.1%, as compared to the actual worst nine-quarter loss rate of only 5.2%.

*Earnings Impact on Regulatory Capital
December 31, 2016 through March 31, 2019
in the Supervisory Severely Adverse Stress Scenario*

	Cumulative 9-Quarter Amount (\$billions)
	Zions Bancorp
Net interest income	4.1
Noninterest income	0.9
Operational risk expense	0.1
OREO Expense	0.2
Other Noninterest Expense	3.8
Pre-provision net revenue (PPNR)	0.8
<i>Less:</i>	
Provision for loan and lease losses	2.3
Trading and counterparty losses	0.0
Realized losses/(gains) on AFS/HTM securities	0.0
<i>Equals:</i>	
Net Income before taxes and extraordinary items ⁽¹⁾	(1.5)
Income tax benefit	(0.6)
Total Impact on Regulatory Capital from Net Income	(0.9)
Goodwill impairment ⁽²⁾	1.0

(1) Excludes goodwill impairment charges

(2) No impact to regulatory capital

In the *Supervisory Severely Adverse* scenario, the Company's capital position declines due to the impact of the following:

Loan Loss Provision

During 2016, the Company recorded a provision for loan losses of \$93 million. In the *Supervisory Severely Adverse* scenario, the Company modeled an annualized provision of \$1.0 billion, or a cumulative \$2.3 billion for the nine-quarter period. Such modeled provisions were primarily attributable to modeled net loan losses of \$2.0 billion, or an annualized \$874 million. This compares to actual 2016 net charge-offs of only \$131 million.

Securities Losses

Zions' securities portfolio contains U.S. government, U.S. government agency, and municipal securities. In the *Supervisory Severely Adverse* scenario, the Company modeled a cumulative \$8 million loss for the nine-quarter period.

Pre-Provision Net Revenue (PPNR)

Zions' PPNR for 2016 was \$791 million (adjusts income before taxes by excluding the effect of the provision for loan losses and net losses on securities). Under the *Supervisory Severely Adverse* scenario, Zions' PPNR equaled an annualized \$376 million, or \$846 million for the nine-quarter period, which reflected:

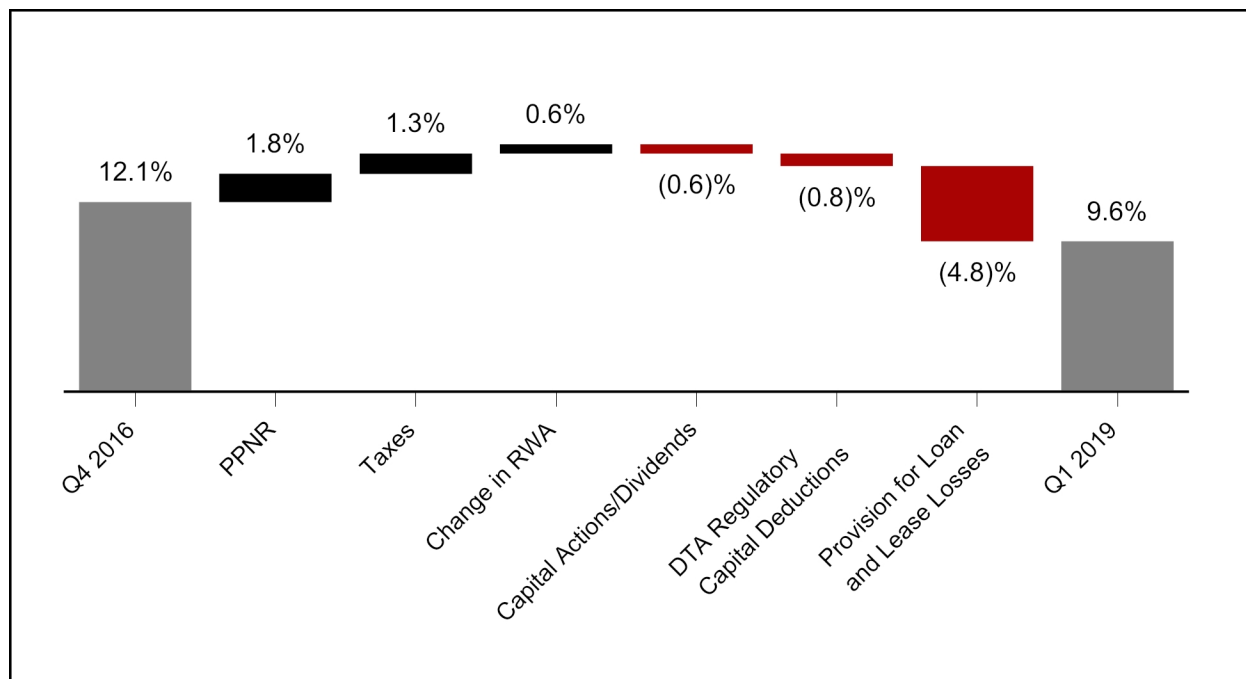
- **Lower net interest income attributable to low short term rates.** Zions' earning assets are skewed to shorter-duration instruments, the income from which is more adversely affected under a falling rate scenario than assets that have longer duration. In 2016, Zions recorded net interest income of \$1.87 billion; under the *Supervisory Severely Adverse* scenario, Zions' projected annualized net interest income is \$1.84 billion. Zions projected that loan balances would decline under a severely adverse stress scenario, and that interest income on loans would be negatively impacted due to both lower balances and the low rate environment. Note that in 2016, Zions' increased the duration of the asset base by funding an additional \$6 billion in securities purchases with excess cash. In addition, Zions' projection assumed an additional \$3 billion increase in securities in Q1 of the forecast. The interest income from these securities dampens the decline in income that would otherwise be observed between the *Supervisory Severely Adverse* scenario and actual experience in 2016.
- **Lower non-interest income.** Excluding net impairment losses on investment securities in 2016, Zions realized \$505 million of noninterest income. In the *Supervisory Severely Adverse* scenario, Zions projected annualized non-interest income would be \$399 million.
- **Higher non-interest expenses.** In 2016, excluding other real estate owned and credit-related expenses and debt extinguishment expenses, Zions recognized \$1.6 billion of non-interest expenses. Under the *Supervisory Severely Adverse* scenario, Zions projected annualized non-interest expense, excluding those same items, would be \$1.7 billion.
- **Higher other real estate owned and credit-related expenses.** Compared to the 2016 amount of \$24 million, Zions estimated such expenses would run an annualized \$156 million during the 9-quarter period.

Risk-Weighted Assets (RWA)

Net risk-weighted assets decreased in the *Supervisory Severely Adverse* scenario from \$49.9 billion at Q4 2016 to \$47.5 billion at Q1 2019. Loan balances decreased by \$4.2 billion, mostly due to loan charge-offs, which decreased RWA.

Significant Drivers of Changes to the Projected Common Equity Tier 1 Ratio under the Supervisory Severely Adverse Scenario

The chart below shows material impacts to the Common Equity Tier 1 Ratio over the course of the nine-quarter stress period. Per the DFAST rules, the forecast capital impacts shown below incorporate the following assumptions: (i) no issuances or redemptions of regulatory capital instruments, (ii) quarterly common stock dividend distributions equal to the average of the prior four quarters, and (iii) capital instrument payments that must be equal to the previously stated expectations of dividends, interest, or principal payments.



For Zions Bancorporation and ZB, N.A., credit losses are the main driver of capital deterioration in the *Supervisory Severely Adverse* scenario forecast.

ZB, N.A.

The following data are the results submitted by ZB, N.A. in its 2017 DFAST submission for the *Supervisory Severely Adverse* scenario. These results represent estimates of ZB, N.A.'s capital position as of Q1 2019 under this scenario, as well as the minimum ratios during the nine-quarter period. **This scenario is considered unlikely to occur; therefore, these estimates do not represent forecasts of expected results.** The economic assumptions used to arrive at these results involve an economic outcome that is significantly more adverse than current market expectations for the economy generally or for ZB, N.A. specifically.

Projected Capital Ratios in the Supervisory Severely Adverse Stress scenario

	Actual as of Dec 31, 2016	Post-Stress as of March 31, 2019	Minimum ratio during hypothetical period
ZB, N.A.			
Common Equity Tier 1	11.7%	9.8%	9.8%
Tier 1 Leverage Ratio	11.0%	8.3%	8.3%
Tier 1 Capital Ratio	13.4%	11.6%	11.6%
Total Risk-Based Capital Ratio	14.6%	12.8%	12.8%

Forward-Looking Statement

This disclosure contains statements relating to a stress test and analysis undertaken by Zions Bancorporation pursuant to regulatory requirements. The stress test results are based upon the hypothetical impact of unlikely future economic conditions on our capital, financial condition, and earnings under certain financial models. The stress test results are not intended to reflect our expectations about actual future conditions. Zions is constantly evaluating and refining the quality of its models; such evaluation might cause our understanding of the stress test results to change. Additionally, changes to the underlying economic assumptions that drive the stress test results may also cause Zions understanding of the stress test results to change. Accordingly, the statements contained in this disclosure are based on facts and circumstances as understood by management of the Company on the date of this disclosure, which may change in the future. Except as required by law, Zions disclaims any obligation to update any statements or to publicly announce the results of any revisions to any of the forward-looking statements included herein to reflect future events, developments, determinations, or understandings.