

# **East West Bancorp, Inc.**

**Annual Dodd-Frank Act Stress Test Results Disclosure  
Supervisory Severely Adverse Scenario**

**10/23/2017**

## Important Considerations

The 2017 Dodd-Frank Act Stress Test (“DFAST”) results present certain projected financial measures for East West Bancorp, Inc. (the “Company” or “East West”) and East West Bank (the “Bank”) under hypothetical economic and financial conditions, market scenarios and other assumptions described herein. Investors should not rely on these results as forecasts of actual financial results for East West Bancorp, Inc. or East West Bank. Our future financial results and conditions will be influenced by actual economic and financial conditions and other factors described in our Annual Report on Form 10-K for the year ended December 31, 2016, and in subsequent quarterly reports filed with the Securities and Exchange Commission (“SEC”) which are available at <http://www.sec.gov>.

The regulations establishing DFAST require us to disclose certain projected financial measures that have not been prepared under U.S. generally accepted accounting principles (“GAAP”). The Company’s actual financial information, prepared under GAAP, is available in reports filed with the SEC.

## East West Disclosure

### Company-Run Stress Test Results and Process

- Per the Dodd-Frank Act, East West is required to consider the results of its Company-run stress test as part of its capital planning process and publicly disclose the results.
- The Company-run stress test spans a nine quarter forecast horizon, starting in 1Q17 and ending in 1Q19.
- Under the Supervisory Severely Adverse scenario, the Company expects to reduce the dividend rate to preserve capital under the stressed economic conditions and resulting financial impact. The Company assumes the quarterly dividend rate will be reduced from \$0.20 to \$0.01 per share starting from 10/1/2017, which will be maintained until the end of the stress testing period.
- This analysis used a hypothetical stressed scenario provided by the Board of the Governors of the Federal Reserve System (“FRB”). For additional information on the Supervisory Severely Adverse scenario, please see the “2017 Supervisory Scenarios for Annual Stress Tests Required Under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule”, published by the FRB on February 3, 2017.
- Disclosure requirements include:
  1. Types of risks included in Company-run stress test
  2. Description of stress test methodologies
  3. Summarized quantitative results of the Company-run stress test under the Supervisory Severely Adverse scenario for the Company and the Bank
  4. Most significant causes for changes in the regulatory ratios
- Capital actions referred to in this disclosure are limited to the dividend reduction, which is not consistent with the Company’s planned capital actions.

## **Risks & Methodology Included in Company-Run Stress Test**

The Company identifies, measures, monitors and manages inherent risks faced by the institution. The Company's risk management process supports a risk-based approach to identify the key risks at East West which include: a) credit risk; b) market and interest rate risk; and c) operational risk. Below is further detail of how East West defines and estimates these risks. Additionally, the Company assesses capital adequacy by reviewing each economic variable within the supervisory scenarios under the DFAST and estimating potential impacts on profitability and level of capital under the economic setting in the supervisory scenarios based on the Company's risk profile, historical performance and management's experience.

### **Credit Risk**

East West originates loans, including residential real estate, commercial real estate, commercial and industrial, consumer, and other extensions of credit, all of which expose the Company to credit risk. Credit risk can arise from obligor nonperformance and default risk, underwriting risk, industry risk, counterparty risk, environmental risk, concentration risk, or documentation risk. Credit risk can also arise from direct and indirect repayment risk from non-lending exposures such as investment securities and interbank placements. Credit risk is considered a significant risk to the Company. The failure of East West's borrowers and counterparties to meet their obligations, which becomes more likely in a stressed economy, increases the likelihood of credit losses. East West manages this risk through continuous monitoring with the objective of sustaining a high-quality credit portfolio that provides for stable credit costs and manageable volatility through an economic cycle.

### **Market & Interest Rate Risk**

Market risk for the Company is defined as the risk to the Company's financial condition resulting from adverse changes in the value of its holdings arising from movements in interest rates, foreign exchange rates, equity prices, or commodity prices. Although the Company holds foreign currencies and offers foreign exchange products to customers, the potential risk to capital from changes in foreign exchange rates is not significant. Generally, the Company does not hold net foreign currency positions that are not hedged. As the Company is generally not involved in trading activities and the majority of the balance sheet is held at cost, the potential market risk impact on capital adequacy is largely limited to the effect of changes in interest rates on investment security values. However, it should be noted that this is largely mitigated by the election to opt out of the inclusion of Accumulated Other Comprehensive Income ("AOCI") in regulatory capital calculations, thereby minimizing the effect of market volatility on the Company's regulatory capital calculations.

Interest rate risk for East West is the potential impact of adverse fluctuations in interest rates on net interest income and fair market value. The Company's magnitude of potential impact is largely dependent upon its ability to actively manage the risk. East West manages this risk through ongoing monitoring. East West considers interest rate risk to be among the more significant risks that could have a material effect on the Company's financial condition and results of operations given that interest rates are a significant determinant of the Company's revenues and funding sources.

### **Operational Risk**

Operational risk for East West is the risk of potential losses due to inadequate information systems, breaches in customer and Company data, operational and financial reporting weaknesses, breaches in internal controls, fraud, and unforeseen catastrophes. These losses may be caused by events such as fraudulent activity, breaches of customer privacy, business disruptions, vendor nonperformance, cyber security attacks, and litigation. However, for DFAST

purposes, the FRB publicly stated that operational-risk losses due to: damage to physical assets, business disruption and system failure, employment practices and workplace safety are not expected to be dependent on the macroeconomic environment and no additional loss needs to be assumed in these categories. The estimate of operational risk is included as a reduction to the forecast of pre-provision net revenue. The Company manages operational risk by developing written policies and procedures covering all major aspects of operations and compliance and through implementing third-party reviews and audits of all major areas of the Bank in addition to the ongoing monitoring and reporting in these areas. Further, the Company manages this risk by providing adequate training for all Bank personnel, obtaining appropriate insurance to cover certain types of operational losses, and developing and implementing an overall operational contingency plan.

## Capital Stress Testing Methodology

East West's capital plan and stress testing originate from the Company's budget as of December 31, 2016, which includes a financial forecast for the next nine quarters. The Company's budget is created prior to any consideration and incorporation of the FRB's supervisory scenarios. East West's primary consideration for loss forecasting in stress scenarios is to project losses that are appropriately sensitive to macroeconomic shocks. Loss forecasting relies on a set of economic assumptions that, in the Supervisory Severely Adverse scenario, are meant to produce significant loss estimates with a corresponding stress on capital levels. The Company's overall approach to assessing, forecasting or quantifying credit risk is a disaggregation of the portfolio based on real estate and non-real estate loans. Real estate loans are then further disaggregated by collateral type. The non-real estate commercial loans are further separated based on industry, aggregated loan risk profile, guarantee, and other supporting collateral. The disaggregated loan portfolios are analyzed to estimate the expected losses in each scenario. The overall approach to assessing, forecasting or quantifying market risk is by calculating the change in value of the investment portfolio, derivatives and foreign exchange holdings due to the change in economic scenarios. As the Company is generally not involved in trading activities and the majority of the balance sheet is held at cost, the most significant market risk that could affect capital adequacy is limited to the effect of impairment of investment securities, and to a lesser degree its derivative and foreign currency exposures. As mentioned above, the Company has elected to opt out of inclusion of AOCI in regulatory calculations, thereby largely minimizing the effect of market volatility on the Company's regulatory capital calculations. The Company estimates interest rate risk with an Asset-Liability Management ("ALM") model. The ALM model enables balance sheet and income statement forecasts under each stressed scenario based on projected asset and liability growth rates and projected interest rates. The projected interest rates are derived from the supervisory scenario yield curves corresponding to the underlying index attributed to specific assets and liabilities. Operational risk can result in significant costs to the Company through fraudulent activity, breaches of customer privacy, business disruptions, vendors that do not perform their responsibilities, cyber security attacks and litigation. Thus, management utilized multiple sources including internal business impact analysis, operational risk assessments, customer population data and transaction volume data as well as industry studies on cybersecurity/information security and data related to regulatory civil penalties regarding operational breaches to estimate appropriate levels of losses in the scenarios due to operational risks.

The previously described methodologies translate identified risks into potential revenue and loss projections over the nine quarter planning horizon. These projections are then aggregated into a net income or loss estimate over the planning horizon. These estimates then drive the forecasted regulatory capital, risk weighted assets and overall forecast of capital ratios. The resulting regulatory capital ratios are then analyzed against management's targeted levels which are key inputs in the Company's and Bank's capital adequacy assessment.

## Description of the Severely Adverse Scenario

The Supervisory Severely Adverse scenario is characterized by a severe global recession, accompanied by a period of heightened corporate financial stress and low yields for short-term U.S. Treasury securities. In the scenario, corporate financial conditions are severely stressed, reflecting mounting credit losses, heightened investor risk aversion, strained market liquidity conditions, and widened spreads between yields on investment-grade corporate bonds and long-term Treasury securities. Equity prices fall substantially, accompanied by a surge in equity market volatility. The scenario also features a severe recession where the unemployment rate peaks at historical highs and property valuations show substantial depreciation.

## East West Bancorp, Inc. Supervisory Severely Adverse Scenario Results – Net Income

Projected Net Revenue, Losses and Net Income (\$ in Thousands)	Cumulative Hypothetical Results Over 9 Quarters	Percent of Average Assets (a)
Pre-provision net revenue (b)	\$ 940,568	2.74%
Other revenue/ (expense)	0	0.00%
<i>Less</i>		
Provisions	1,129,539	3.29%
Realized losses on securities - HTM	(8,856)	-0.03%
Realized gains on securities - AFS	4,674	0.01%
Trading and counterparty losses	0	0.00%
Other losses/gains	0	0.00%
<b>Net loss before taxes</b>	<b>\$ (193,153)</b>	<b>-0.56%</b>
<i>Less</i>		
Tax Benefit	(120,970)	-0.35%
<b>Net loss</b>	<b>\$ (72,183)</b>	<b>-0.21%</b>

- (a) Average assets are nine-quarter average assets.
- (b) Pre-provision net revenue (“PPNR”) is defined as net interest income plus non-interest income minus non-interest expense. The Bank includes losses from operational risk events and other real estate owned (“OREO”) costs in PPNR.

## East West Bancorp, Inc. Supervisory Severely Adverse Scenario Results – Loan Losses

Projected Loan Losses by Type of Loans (\$ in Thousands)	Cumulative Hypothetical Results Over 9 Quarters	Portfolio Loss Rates (a)
<b>Total Loan losses</b>	<b>\$ 704,114</b>	<b>2.77%</b>
First lien mortgages	63,817	1.73%
Junior liens	2,351	3.62%
Home equity lines of credit (b)	25,228	1.40%
Commercial and industrial (c)	301,555	3.88%
Other construction	41,827	7.68%
Multi-family	47,379	2.94%
1-4 family construction	21,222	16.39%
Commercial real estate, domestic	172,551	2.10%
Credit cards (d)	1,900	152.10%
Other consumer (e)	4,131	6.44%
Other loans	22,153	1.48%

- (a) Average loan balances used to calculate portfolio loss rates are calculated over nine quarters.  
 (b) The home equity lines of credit portfolio is largely comprised of first lien positions.  
 (c) Commercial and industrial loans include trade finance loans.  
 (d) Projected credit card losses include losses on additional utilization of existing credit limits.  
 (e) Other consumer loans include automobile loans.

## East West Bancorp, Inc. Supervisory Severely Adverse Scenario Results – Capital Ratios and Risk-Weighted Assets

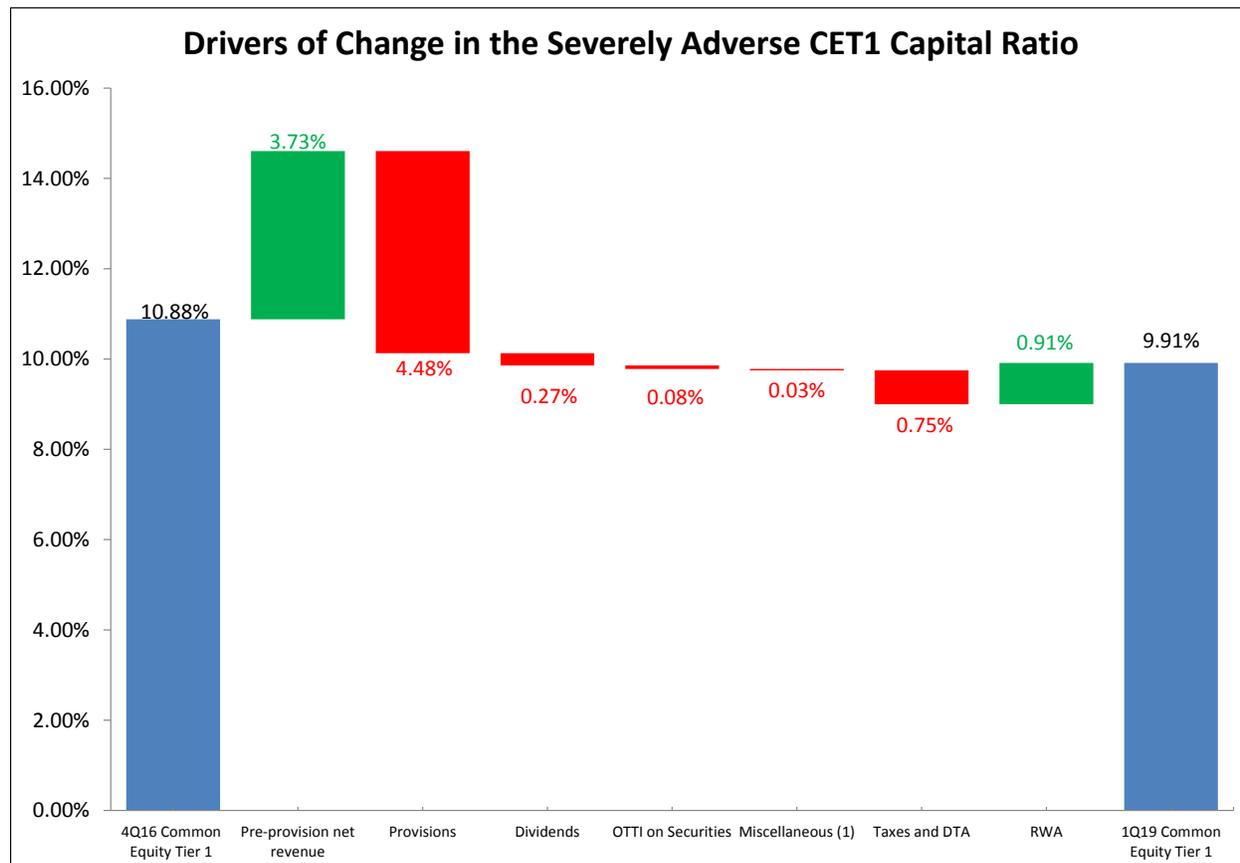
Projected Stress Capital Ratios (a)	Actual	Stressed Capital Ratios (b)	
	Q4 2016	Q1 2019	Minimum over Projection Horizon
Common Equity Tier 1 Capital Ratio (%) (c)	10.88%	9.91%	9.60%
Tier 1 Risk-Based Capital Ratio (%) (c)	10.88%	9.91%	9.60%
Total Risk-Based Capital Ratio (%) (c)	12.43%	11.77%	11.41%
Tier 1 Leverage Ratio (%) (c)	8.70%	7.91%	7.67%

Risk-Weighted Assets (\$ in thousands)	Actual	Projected
	Q4 2016	Q1 2019
Risk-Weighted Assets	\$ 27,357,753	\$ 25,235,458

- (a) Under the Supervisory Severely Adverse scenario, the Company assumes that the quarterly dividend rate is reduced from \$0.20 to \$0.01 per quarter from the third quarter of 2017 through the end of the stress testing period.
- (b) The capital ratios are calculated using capital action assumptions allowed within the DFAST rule. These projections represent hypothetical estimates that involve an economic outcome that may be more adverse than expected. These estimates are not forecasts of expected losses, revenues, net income before taxes, or capital ratios.
- (c) Capital ratios are calculated under the Regulatory Capital Rules' risk-based "standardized approach" utilizing transition provisions where applicable.

## Most Significant Causes for Changes in East West Bancorp, Inc. Capital Ratios

### I. Common Equity Tier 1 Capital Ratio

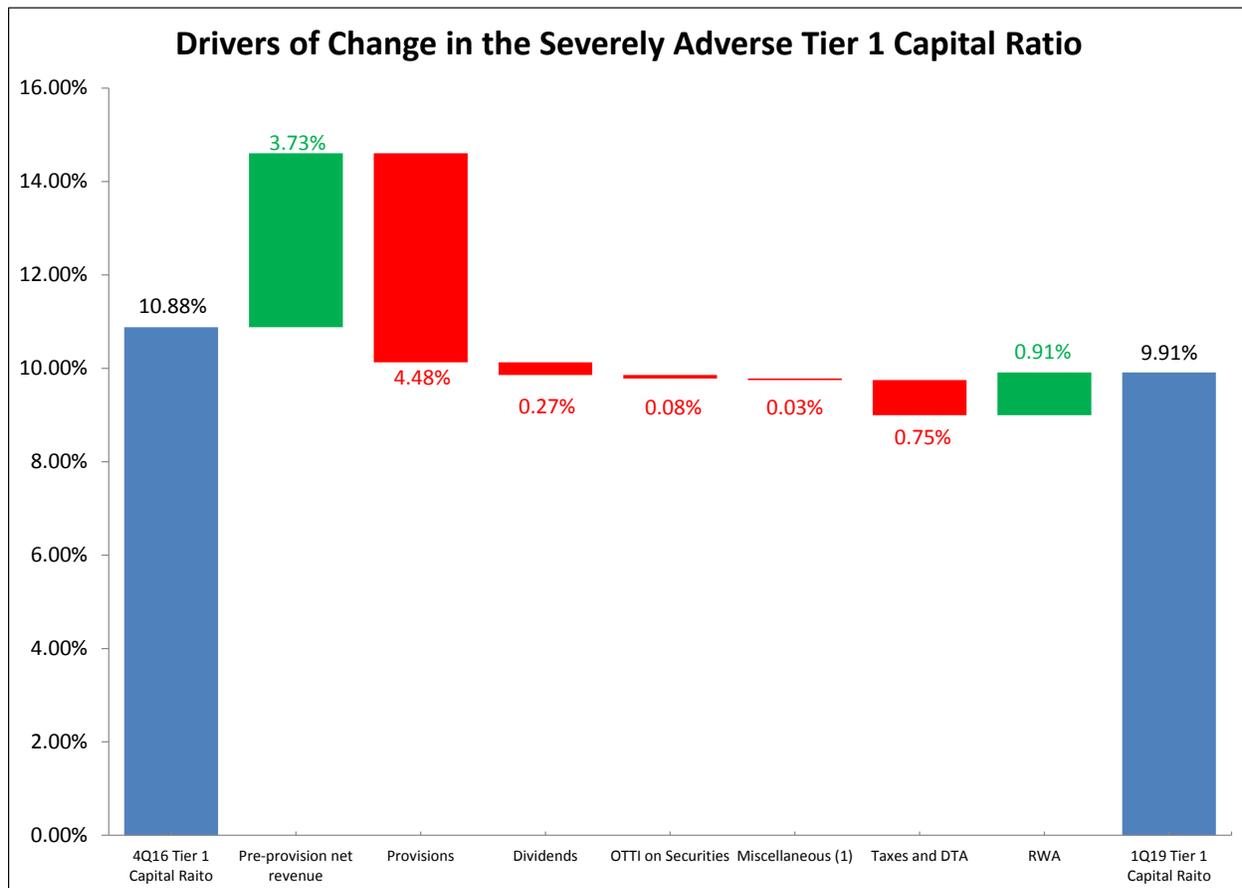


(1) Miscellaneous includes stock compensation, unrealized gain/loss on investments and all other gains and losses.

The provision for loan losses has the greatest negative impact of 4.48% to the Common Equity Tier 1 Capital Ratio over the 9 quarters for the Supervisory Severely Adverse scenario. The high level of provision is due to the rapid deterioration in credit and the resulting escalated levels of loan charge-offs. Additionally, taxes and the deferred tax asset (DTA) negatively impact the ratio by 0.75% over the 9 quarters. Under the Supervisory Severely Adverse

scenario, the Company projects that the DTA will be disallowed from capital by the end of the 9 quarter period. The DTA is largely a result of temporary tax differences from the provision for loan losses. Under the capital rules, the DTA is disallowed if after the application of a net carryback, the DTA is still greater than 10% of capital or 15% when aggregated with other items. The greatest positive impact to the CET1 Capital ratio over the 9 quarters of 3.73% is a result of the PPNR. Overall, the Common Equity Tier 1 Capital Ratio is 10.88% as of December 31, 2016, and decreases in the Supervisory Severely Adverse scenario to 9.91% at the end of the planning horizon.

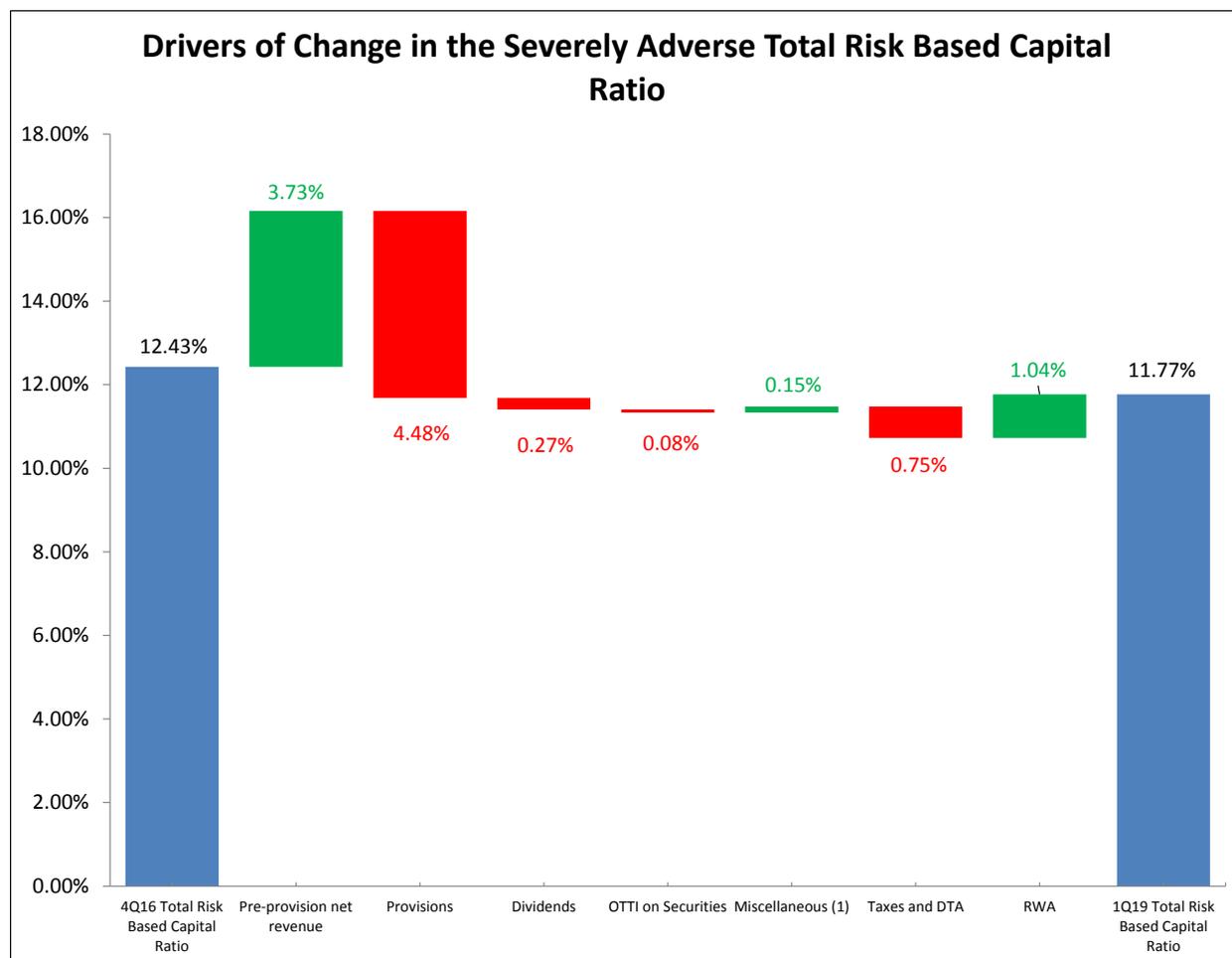
## II. Tier 1 Risk-Based Capital Ratio



(1) Miscellaneous includes stock compensation, unrealized gain/loss on investments and all other gains and losses.

Overall, the Tier 1 Risk-Based Capital Ratio is 10.88% as of December 31, 2016 and decreases in the Supervisory Severely Adverse scenario to 9.91% at the end of the planning horizon. As of December 31, 2016 through the nine quarter planning horizon Tier 1 Capital and Common Equity Tier 1 Capital are the same. Thus, this chart demonstrates the same impacts as the previous chart.

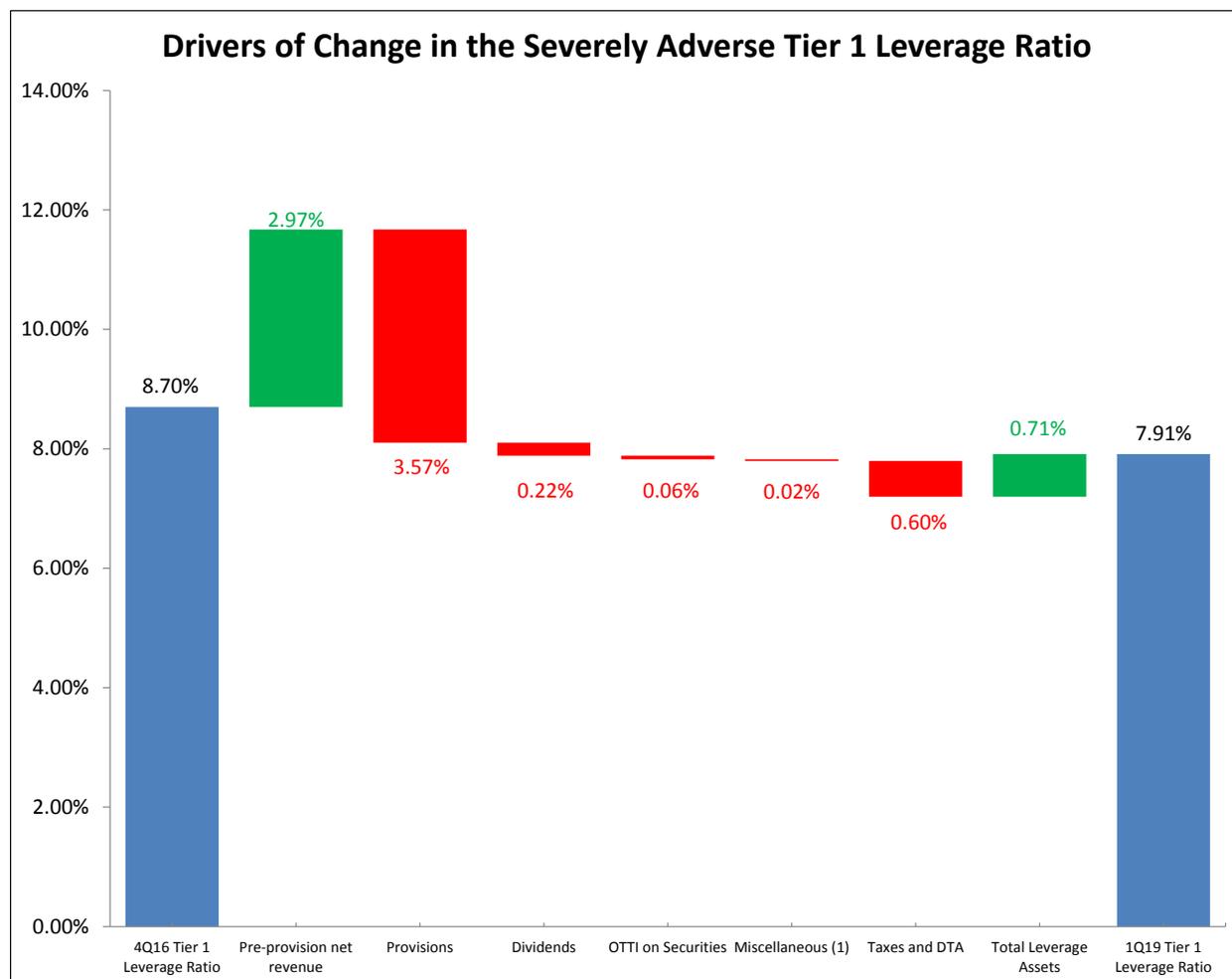
### III. Total Risk-Based Capital Ratio



(1) Miscellaneous includes stock compensation, unrealized gain/loss on investments and all other gains and losses.

The provision for loan losses has the greatest negative impact of 4.48%, to the Total Risk-Based Capital Ratio over the 9 quarters for the Supervisory Severely Adverse scenario. The high level of provision is due to the rapid deterioration in credit and the resulting escalated levels of loan charge-offs. Additionally, taxes and the DTA negatively impact the ratio by 0.75% over the 9 quarters. Under the Supervisory Severely Adverse scenario, the Company projects that the DTA will be disallowed from capital by the end of the 9 quarter period. The DTA is largely a result of temporary tax differences from the provision for loan losses. Under the capital rules, the DTA is disallowed if after the application of a net carryback, the DTA is still greater than 10% of capital or 15% when aggregated with other items. The greatest positive impact to the Total Risk Based Capital ratio over the 9 quarters of 3.73% is a result of the PPNR. Overall, the Total Risk-Based Capital Ratio is 12.43% as of December 31, 2016, and decreases in the Supervisory Severely Adverse scenario to 11.77% at the end of the planning horizon.

## IV. Tier 1 Leverage Ratio



(1) Miscellaneous includes stock compensation, unrealized gain/loss on investments and all other gains and losses.

The provision for loan losses has the greatest negative impact of 3.57%, to the Tier 1 Leverage Ratio over the 9 quarters for the Supervisory Severely Adverse scenario. The high level of provision is due to the rapid deterioration in credit and the resulting escalated levels of loan charge-offs. Additionally, taxes and the DTA negatively impact the ratio by 0.60% over the 9 quarters. Under the Supervisory Severely Adverse scenario, the Company projects that the DTA will be disallowed from capital by the end of the 9 quarter period. The DTA is largely a result of temporary tax differences from the provision for loan losses. Under the capital rules, the DTA is disallowed if after the application of a net carryback, the DTA is still greater than 10% of capital or 15% when aggregated with other items. The greatest positive impact to the Tier 1 Leverage ratio over the 9 quarters of 2.97% is a result of the PPNR. Additionally, the changes in the total leveraged assets positively impact the Tier 1 Leverage Ratio. Overall, the Tier 1 Leverage Ratio is 8.70% as of December 31, 2016, and decreases in the Supervisory Severely Adverse scenario to 7.91% at the end of the planning horizon.

## East West Bank Supervisory Severely Adverse Scenario Results – Net Income

Projected Net Revenue, Losses and Net Income (\$ in Thousands)	Cumulative Hypothetical Results Over 9 Quarters	Percent of Average Assets (a)
Pre-provision net revenue (b)	\$ 940,568	2.75%
Other revenue/ (expense)	0	0.00%
<i>Less</i>		
Provisions	1,129,539	3.30%
Realized losses on securities - HTM	(8,856)	-0.03%
Realized gains on securities - AFS	8,234	0.02%
Trading and counterparty losses	0	0.00%
Other losses/gains	0	0.00%
<b>Net loss before taxes</b>	<b>\$ (189,593)</b>	<b>-0.55%</b>
<i>Less</i>		
Tax Benefit	(119,474)	-0.35%
<b>Net loss</b>	<b>\$ (70,119)</b>	<b>-0.20%</b>

(a) Average assets are nine-quarter average assets.

(b) The Bank includes losses from operational risk events and OREO costs in PPNR.

## East West Bank Supervisory Severely Adverse Scenario Results – Loan Losses

Projected Loan Losses by Type of Loans (\$ in Thousands)	Cumulative Hypothetical Results Over 9 Quarters	Portfolio Loss Rates (a)
<b>Total Loan losses</b>	<b>\$ 704,114</b>	<b>2.77%</b>
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- (e) Other consumer loans include automobile loans.

## East West Bank Supervisory Severely Adverse Scenario Results – Capital Ratios and Risk-Weighted Assets

Projected Stress Capital Ratios (a)	Actual	Stressed Capital Ratios (b)	
	Q4 2016	Q1 2019	Minimum over Projection Horizon
Common equity tier 1 capital ratio (%) (c)	11.33%	10.13%	9.79%
Tier 1 risk-based capital ratio (%) (c)	11.33%	10.13%	9.79%
Total risk-based capital ratio (%) (c)	12.35%	11.40%	11.06%
Tier 1 leverage ratio (%) (c)	9.06%	8.10%	7.84%

Risk-Weighted Assets (\$ in thousands)	Actual	Projected
	Q4 2016	Q1 2019
Risk-weighted Assets	\$ 27,310,540	\$ 25,222,057

- (a) Under the Supervisory Severely Adverse scenario, the Company expects to halt dividends from the Bank up to the holding company starting from the third quarter of 2017 through the end of the stress testing period.
- (b) The capital ratios are calculated using capital action assumptions allowed within the DFAST rule. These projections represent hypothetical estimates that involve an economic outcome that may be more adverse than expected. These estimates are not forecasts of expected losses, revenues, net income before taxes, or capital ratios.
- (c) Capital ratios are calculated under the Regulatory Capital Rules' risk-based "standardized approach" utilizing transition provisions where applicable.

### **Forward-Looking Statements**

*This disclosure includes forward-looking statements within the meaning of the "Safe-Harbor" provisions of the Private Securities Litigation Reform Act of 1995, which are necessarily subject to risk and uncertainty. Actual results could differ materially due to actual economic factors and various risks, including those set forth from time to time in our filings with the SEC. This disclosure contains forward looking statements relating to our Dodd-Frank Act Stress Test Results, including projections of our financial condition and results, under the hypothetical Severely Adverse scenario prescribed to us by our regulators. The projections contained within are not intended to reflect our expectations about future economic conditions or our forecasted results. The Company's future financial results and condition will be influenced by actual economic and financial conditions and various other factors as described in its reports filed with the Securities and Exchange Commission and available at [www.sec.gov](http://www.sec.gov). You should not place undue reliance on forward-looking statements and we undertake no obligation, except as required by law, to update any such statements.*