



# DODD-FRANK ACT STRESS TESTS RESULTS SEVERELY ADVERSE SCENARIO

August 7, 2017



Federal Housing Finance Agency

**Table of Contents**

- I. Overview ..... 2
- II. Severely Adverse Scenario Results Summary ..... 2
- III. Severely Adverse Scenario ..... 3
- IV. FHFA Guidance ..... 4
- V. Severely Adverse Scenario Results Detail ..... 5
  - Table 1: DFAST Severely Adverse Scenario Results – Combined ..... 5
  - Table 2: DFAST Severely Adverse Scenario Results – Fannie Mae ..... 6
  - Table 3: DFAST Severely Adverse Scenario Results – Freddie Mac ..... 7



## I. Overview

Fannie Mae and Freddie Mac (the “Enterprises”) are required to conduct annual stress tests pursuant to Federal Housing Finance Agency (FHFA) rule 12 CFR § 1238, which implements section 165(i)(2) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”). Section 165(i)(2) of the Dodd-Frank Act requires certain financial companies that have total consolidated assets of more than \$10 billion and are regulated by a primary Federal financial regulatory agency to conduct annual stress tests to determine whether the companies have the capital necessary to absorb losses as a result of adverse economic conditions. This is the fourth implementation of the Dodd-Frank Act Stress Tests (DFAST) for the Enterprises.

This report provides updated information on possible ranges of future financial results of the Enterprises under severely adverse conditions. The severely adverse conditions assumed were identical for both Enterprises.

The projections reported here are not expected outcomes. They are modeled projections in response to “what if” exercises based on assumptions about Enterprise operations, loan performance, macroeconomic and financial market conditions, and house prices. The projections do not define the full range of possible outcomes. Actual outcomes may be different.

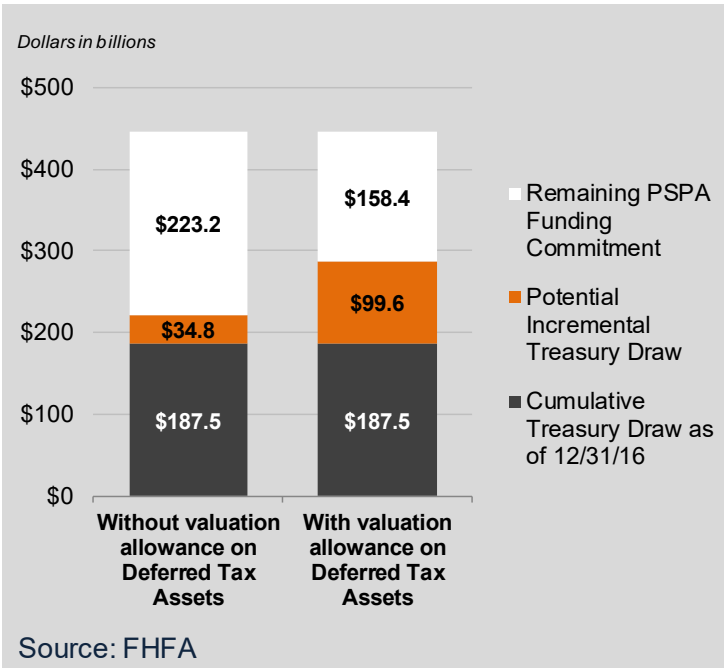
The DFAST Severely Adverse scenario is described on page 3. The Enterprises used their respective internal models to project their financial results based on the assumptions provided by FHFA.

While this effort achieves a degree of comparability between the Enterprises, it does not eliminate differences in their respective internal models, accounting differences, or management actions.

## II. Severely Adverse Scenario Results Summary

As of December 31, 2016 the Enterprises had drawn a combined \$187.5 billion from the Department of the Treasury under the terms of the Senior Preferred Stock Purchase Agreements (PSPAs), and the combined remaining funding commitment under the PSPAs was \$258.1 billion. In the Severely Adverse scenario, incremental Treasury draws are projected to range between \$34.8 billion and \$99.6 billion depending on the treatment of deferred tax assets. The remaining funding commitment under the PSPAs after the projected draws is \$223.2 billion, without establishing valuation allowances on deferred tax assets. Assuming both Enterprises establish valuation allowances on deferred tax assets, the remaining funding commitment is \$158.4 billion.





### III. Severely Adverse Scenario

The 2017 DFAST Severely Adverse scenario is based upon a severe global recession which is accompanied by a period of elevated stress in corporate financial and commercial real estate markets. It includes large reductions in asset prices, significant widening of corporate bond spreads, and strained market liquidity conditions. The scenario is not a forecast, but instead is a hypothetical future economic environment designed to assess the strength of the Enterprises and other financial institutions and their resilience to unfavorable market conditions. The planning horizon for the implementation of the 2017 DFAST is over a nine quarter period from December 31, 2016 through March 31, 2019.

In the 2017 DFAST Severely Adverse scenario, U.S. real GDP begins to decline immediately and reaches a trough in the second quarter of 2018 after a decline of 6.50 percent from the pre-recession peak. The rate of unemployment increases from 4.7 percent at the beginning of the planning horizon to a peak of 10.0 percent in the third quarter of 2018. The annualized consumer price inflation rate initially declines to about 1.25 percent by the second quarter of 2017 and then rises to approximately 1.75 percent by the middle of 2018.

As a result of the severe decline in real economic activity and muted inflation levels, short-term Treasury rates decline to near zero and remain there through the end of the planning horizon. In the scenario, the 10-year Treasury rate drops to about 0.75 percent in the first



quarter of the planning horizon before gradually and consistently increasing to a level of about 1.50 percent in the first quarter of 2019.

Due to these macroeconomic developments, asset prices decline sharply as corporate financial conditions are severely stressed, reflecting mounting credit losses. Spreads on domestic investment-grade corporate bonds versus long-term Treasury securities increase to 5.5 percent by the end of 2017. In addition, equity prices fall by approximately 50 percent from the start of the planning horizon through the end of 2017, and equity market volatility increases substantially, approaching levels last seen in 2008. Home prices decline by approximately 25 percent, and commercial real estate prices fall by 35 percent through the first quarter of 2019.

The 2017 DFAST Severely Adverse scenario also includes a global market shock component that impacts the Enterprises' retained portfolios. The global market shock involves large and immediate changes in asset prices, interest rates, and spreads caused by general market dislocation, uncertainty in the global economy, and significant market illiquidity. Option-adjusted spreads on mortgage-backed securities widen significantly in this scenario.

The global market shock also includes a counterparty default component that assumes the failure of each Enterprise's largest counterparty. The global market shock is treated as an instantaneous loss and reduction of capital in the first quarter of the planning horizon, and the scenario assumes no recovery of these losses by the Enterprises in future quarters. For those positions subject to the global market shock, FHFA directed the Enterprises to report the greater of the global market shock losses or the losses attributable to the macroeconomic scenario for the identical positions.

#### **IV. FHFA Guidance**

FHFA instructed the Enterprises to extrapolate any scenario variables beyond the projection date as required. FHFA provided a year of scenario assumptions beyond the nine-quarter planning horizon to be used by the Enterprises as needed. Additionally, FHFA provided historical data on scenario variables in the event that models required that information.

FHFA instructed the Enterprises to comply with the terms of the PSPAs, as amended, to determine the level of dividends to be paid during each quarter of the planning horizon.



FHFA communicated specific instructions to address particular issues relevant to the Enterprises' unique lines of business. FHFA required the Enterprises to use aligned regional house price paths to improve the comparability of stress test results. Additionally, FHFA broadened the definition of counterparties to be considered in the largest counterparty default component of the global market shock to include mortgage insurers and providers of multifamily credit enhancements.

## V. Severely Adverse Scenario Results Detail

The following tables reflect the Enterprises' results on the Dodd-Frank Act Stress Tests.

**Table 1: DFAST Severely Adverse Scenario Results – Combined**

<i>(Dollars in billions)</i>	Cumulative Projected Financial Metrics (Q1 2017 - Q1 2019)		
	Results without establishing valuation allowance on deferred tax assets	Impact of establishing valuation allowance on deferred tax assets	Results with establishing valuation allowance on deferred tax assets
Pre-provision net revenue <sup>1</sup>	\$33.3		\$33.3
(Provision) benefit for credit losses	(55.9)		(55.9)
Mark-to-market gains (losses) <sup>2</sup>	(5.8)		(5.8)
Global market shock impact on trading securities and counterparty <sup>3</sup>	(8.2)		(8.2)
Net income before taxes	(36.7)		(36.7)
(Provision) benefit for taxes	13.3	(64.4)	(51.1)
Other comprehensive income (loss) <sup>4</sup>	(11.8)		(11.8)
Total comprehensive income (loss)	(35.1)	(64.4)	(99.5)
Dividends <sup>5</sup>	(0.9)	(0.4)	(1.3)
PSPA funding commitment as of December 31, 2016	\$258.1		\$258.1
Treasury draws required	34.8	64.8	99.6
<b>Remaining PSPA funding commitment</b>	<b>\$223.2</b>	<b>(64.8)</b>	<b>\$158.4</b>
Credit losses <sup>6</sup>	(\$19.2)		(\$19.2)
Credit losses (% of average portfolio balance)	0.38%		0.38%

<sup>1</sup> Includes net interest income, security impairments, operational risk losses, foreclosed property income (expense), and other non-interest income/expenses.

<sup>2</sup> Includes fair value gains (losses) on derivative and trading securities, and other gains (losses) on investment securities.

<sup>3</sup> Includes global market shock impact on held-for-sale loans.

<sup>4</sup> Includes global market shock impact on available-for-sale securities.

<sup>5</sup> No projected quarterly dividends by Fannie Mae over the nine-quarter planning horizon. Freddie Mac did project dividend payments in a few quarters over the nine-quarter planning horizon.

<sup>6</sup> Credit losses are defined as charge-offs, net plus foreclosed property expenses.

Numbers may not foot due to rounding.



# Dodd-Frank Act Stress Tests – Severely Adverse Scenario Results

**Table 2: DFAST Severely Adverse Scenario Results – Fannie Mae**

<i>(Dollars in billions)</i>	<b>Cumulative Projected Financial Metrics (Q1 2017 - Q1 2019)</b>		
	Results without establishing valuation allowance on deferred tax assets	Impact of establishing valuation allowance on deferred tax assets	Results with establishing valuation allowance on deferred tax assets
Pre-provision net revenue <sup>1</sup>	\$16.1		\$16.1
(Provision) benefit for credit losses	(35.3)		(35.3)
Mark-to-market gains (losses) <sup>2</sup>	0.8		0.8
Global market shock impact on trading securities and counterparty <sup>3</sup>	<u>(2.9)</u>		<u>(2.9)</u>
Net income before taxes	(21.3)		(21.3)
(Provision) benefit for taxes	7.9	(42.7)	(34.8)
Other comprehensive income (loss) <sup>4</sup>	<u>(1.5)</u>		<u>(1.5)</u>
Total comprehensive income (loss)	(14.9)	(42.7)	(57.6)
Dividends <sup>5</sup>	-		-
PSPA funding commitment as of December 31, 2016	\$117.6		\$117.6
Treasury draws required	<u>14.3</u>	<u>42.7</u>	<u>57.0</u>
<b>Remaining PSPA funding commitment</b>	<b>\$103.3</b>	<b>(\$42.7)</b>	<b>\$60.6</b>
Credit losses <sup>6</sup>	(\$11.9)		(\$11.9)
Credit losses (% of average portfolio balance)	0.39%		0.39%

<sup>1</sup> Includes net interest income, security impairments, operational risk losses, foreclosed property income (expense), and other non-interest income/expenses.

<sup>2</sup> Includes fair value gains (losses) on derivative and trading securities, and other gains (losses) on investment securities.

<sup>3</sup> Includes global market shock impact on held-for-sale loans.

<sup>4</sup> Includes global market shock impact on available-for-sale securities.

<sup>5</sup> No dividend payments were projected by Fannie Mae over the nine-quarter planning horizon.

<sup>6</sup> Credit losses are defined as charge-offs, net plus foreclosed property expenses.

Numbers may not foot due to rounding.



# Dodd-Frank Act Stress Tests – Severely Adverse Scenario Results

**Table 3: DFAST Severely Adverse Scenario Results – Freddie Mac**

<i>(Dollars in billions)</i>	<b>Cumulative Projected Financial Metrics (Q1 2017 - Q1 2019)</b>		
	Results without establishing valuation allowance on deferred tax assets	Impact of establishing valuation allowance on deferred tax assets	Results with establishing valuation allowance on deferred tax assets
Pre-provision net revenue <sup>1</sup>	\$17.2		\$17.2
(Provision) benefit for credit losses	(20.6)		(20.6)
Mark-to-market gains (losses) <sup>2</sup>	(6.6)		(6.6)
Global market shock impact on trading securities and counterparty <sup>3</sup>	<u>(5.3)</u>		<u>(5.3)</u>
Net income before taxes	(15.3)		(15.3)
(Provision) benefit for taxes	5.4	(21.7)	(16.3)
Other comprehensive income (loss) <sup>4</sup>	<u>(10.3)</u>		<u>(10.3)</u>
Total comprehensive income (loss)	(20.2)	(21.7)	(41.9)
Dividends <sup>5</sup>	(0.9)	(0.4)	(1.3)
<b>PSPA funding commitment as of December 31, 2016</b>	<b>\$140.5</b>		<b>\$140.5</b>
Treasury draws required	<u>20.5</u>	<u>22.1</u>	<u>42.6</u>
<b>Remaining PSPA funding commitment</b>	<b>\$120.0</b>	<b>(\$22.1)</b>	<b>\$97.8</b>
Credit losses <sup>6</sup>	(\$7.3)		(\$7.3)
Credit losses (% of average portfolio balance)	0.36%		0.36%

<sup>1</sup> Includes net interest income, security impairments, operational risk losses, foreclosed property income (expense), and other non-interest income/expenses.

<sup>2</sup> Includes fair value gains (losses) on derivative and trading securities, and other gains (losses) on investment securities.

<sup>3</sup> Includes global market shock impact on held-for-sale loans.

<sup>4</sup> Includes global market shock impact on available-for-sale securities.

<sup>5</sup> Includes dividend payments projected over the nine-quarter planning horizon.

<sup>6</sup> Credit losses are defined as charge-offs, net plus foreclosed property expenses.

Numbers may not foot due to rounding.

