

## Federal Housing Finance Agency

Dodd-Frank Act Stress Tests - Severely Adverse Scenario

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### **Summary**

#### **Background**

- This report provides updated information on possible ranges of future financial results of Fannie Mae and Freddie Mac (the "Enterprises") under severely adverse conditions, which are consistent for both Enterprises.
- The Enterprises are required to conduct stress tests per 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 with total consolidated assets of more than \$10 billion, and which 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 second implementation of the Dodd-Frank Act Stress Tests (DFAST).
- 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 very different.
- An overview of the DFAST Severely Adverse scenario is described on page 4. The Enterprises used their respective internal models to project their financial results based on the assumptions provided by the Federal Reserve and 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.

# **Dodd-Frank Act Stress Tests Severely Adverse Scenario**

- As of September 30, 2014, the Enterprises have drawn a combined \$187.5 billion from the Department of the Treasury under the terms of the Senior Preferred Stock Purchase Agreements (the "PSPAs").
- The combined remaining funding commitment under the PSPAs as of September 30, 2014 was \$258.1 billion.
- Under the Severely Adverse scenario, incremental Treasury draws range between \$68.6 billion and \$157.3 billion depending on the treatment of deferred tax assets.
- The remaining funding commitment under the PSPAs ranges between \$189.4 billion and \$100.8 billion depending on the treatment of deferred tax assets.

#### Dodd-Frank Act Stress Tests Severely Adverse Scenario Results Enterprises Combined

Dollars in billions



Remaining PSPA Funding Commitment Potential Incremental Treasury Draw Cumulative Treasury Draw as of 9/30/14

No incremental senior preferred dividends paid in this scenario.

Source: FHFA

## **DFAST Severely Adverse Scenario - Overview**

The **2015 DFAST Severely Adverse scenario** as designed by the Federal Reserve is characterized by a substantial global weakening in economic activity coupled with a severe recession in the United States. It includes large reductions in asset prices, significant widening of corporate bond spreads, and a sharp increase in volatility for equity markets. The scenario is not a forecast but instead a hypothetical future economic environment designed to assess the strength of the Enterprises and other financial institutions and their resilience to both immediate and prolonged unfavorable market conditions. The forecast horizon for the implementation of the 2015 DFAST is September 30, 2014 through December 31, 2016.

The Severely Adverse scenario involves a deep and protracted recession in which the unemployment rate increases by 4 percentage points from the beginning of the forecast horizon to a peak level of 10 percent in the middle of 2016. By the end of 2015, real GDP declines by 4.5 percent compared to its level at the beginning of the forecast horizon; it begins to recover in 2016.

With this severe economic contraction, short-term interest rates remain near zero throughout the forecast horizon. Long-term rates immediately drop significantly, with the 10-year Treasury falling to 1 percent in the fourth quarter of 2014. Long-term rates then increase slowly throughout the remainder of the forecast horizon.

Due to these macroeconomic developments, asset prices decline sharply as a result of an assumed decline in U.S. corporate credit quality. Spreads on domestic investment-grade bonds widen from approximately 170 basis points to 500 basis points at their peak. In addition, equity prices fall by roughly 60 percent from the start of the forecast horizon through the end of 2015 and equity market volatility increases substantially. Home prices decline by 25 percent over the course of the forecast horizon relative to their level at the beginning of the period.

Finally, the 2015 DFAST Severely Adverse scenario 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 and uncertainty in the global economy. 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 forecast horizon and the scenario assumes no recovery of losses in future quarters by the Enterprises.

**Cumulative Projected Financial Metrics** 

## **DFAST Severely Adverse Scenario Results - Combined**

As of September 30, 2014 the combined remaining funding commitment under the PSPAs was \$258.1 billion. In the Severely Adverse scenario, incremental Treasury Draws range between \$68.6 billion and \$157.3 billion depending on the treatment of deferred tax assets. The remaining funding commitment under the PSPAs is \$189.4 billion without re-establishing valuation allowances on deferred tax assets. Assuming both Enterprises re-establish valuation allowances on deferred tax assets, the remaining funding commitment is \$100.8 billion.

Table 1: DFAST Severely Adverse Scenario Results - Combined

	Guillulative Projected Fillancial Metrics			
(Dollars in billions)	(Q4 2014 - Q4 2016)			
	Results without re-establishing valuation	Impact of re- establishing valuation	Results with re-establishing valuation	
	allowance on	allowance on	allowance on	
	deferred tax	deferred tax	deferred tax	
	assets	assets	assets	
Pre-provision net revenue <sup>1</sup>	\$33.2		\$33.2	
(Provision) benefit for credit losses	(89.3)		(89.3)	
Mark-to-market gains (losses) <sup>2</sup>	(11.4)		(11.4)	
Global market shock impact on trading securities				
and counterparty	<u>(6.7)</u>		<u>(6.7)</u>	
Net income before taxes	(74.2)		(74.2)	
(Provision) benefit for taxes	26.8	(88.7)	(61.9)	
Other comprehensive income (loss) <sup>3</sup>	(26.0)		(26.0)	
Total comprehensive income (loss)	(73.4)	(88.7)	(162.1)	
PSPA funding commitment as of September 30, 2014	\$258.1		\$258.1	
Treasury draws required	68.6	88.7	157.3	
Remaining PSPA funding commitment	\$189.4	(88.7)	\$100.8	
	Ψ100.4	(00.7)	Ψ100.0	
Credit losses <sup>4</sup>	\$43.0		\$43.0	
Credit losses (% of average portfolio balance)	0.92%		0.92%	

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

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

<sup>&</sup>lt;sup>3</sup> Includes the global market shock impact on available-for-sale securities.

<sup>&</sup>lt;sup>4</sup> Credit losses are defined as charge-offs, net plus foreclosed property expenses.

## **DFAST Severely Adverse Scenario Results – Fannie Mae**

Table 2: DFAST Severely Adverse Scenario Results - Fannie Mae

Cumulative Projected Financial Metrics (Q4 2014 - Q4 2016)

(Dollars in billions)	(Q4 2014 - Q4 2016)		
•	Results without	Impact of re-	Results with
	re-establishing	establishing	re-establishing
	valuation allowance on	valuation allowance on	valuation allowance on
	deferred tax	deferred tax	deferred tax
	assets	assets	assets
Pre-provision net revenue <sup>1</sup>	\$19.2		\$19.2
(Provision) benefit for credit losses	(54.9)		(54.9)
Mark-to-market gains (losses) <sup>2</sup>	(7.3)		(7.3)
Global market shock impact on trading securities			
and counterparty	<u>(4.1)</u>		<u>(4.1)</u>
Net income before taxes	(47.2)		(47.2)
(Provision) benefit for taxes	17.3	(60.7)	(43.4)
Other comprehensive income (loss) <sup>3</sup>	<u>(6.8)</u>		<u>(6.8)</u>
Total comprehensive income (loss)	(36.6)	(60.7)	(97.4)
PSPA funding commitment as of September 30, 2014	\$117.6		\$117.6
Treasury draws required	<u>34.2</u>	60.7	94.9
Remaining PSPA funding commitment	\$83.4	(60.7)	\$22.6
Credit losses <sup>4</sup>	\$24.9		\$24.9
Credit losses (% of average portfolio balance)			
Credit 1035e5 ( /0 01 average portion balance)	0.85%		0.85%

Numbers may not foot due to rounding

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

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

<sup>&</sup>lt;sup>3</sup> Includes the global market shock impact on available-for-sale securities.

<sup>&</sup>lt;sup>4</sup> Credit losses are defined as charge-offs, net plus foreclosed property expenses.

## **DFAST Severely Adverse Scenario Results – Freddie Mac**

Table 3: DFAST Severely Adverse Scenario Results - Freddie Mac

Cumulative Projected Financial Metrics (Q4 2014 - Q4 2016)

(Dollars in billions)	(Q4 2014 - Q4 2016)		
	Results without	Impact of re-	Results with
	re-establishing	establishing	re-establishing
	valuation	valuation	valuation
	allowance on deferred tax	allowance on deferred tax	allowance on deferred tax
	assets	assets	assets
Pre-provision net revenue <sup>1</sup>	\$14.0		\$14.0
(Provision) benefit for credit losses	(34.3)		(34.3)
Mark-to-market gains (losses) <sup>2</sup>	(4.1)		(4.1)
Global market shock impact on trading securities			
and counterparty	<u>(2.6)</u>		<u>(2.6)</u>
Net income before taxes	(27.0)		(27.0)
(Provision) benefit for taxes	9.4	(27.9)	(18.5)
Other comprehensive income (loss) <sup>3</sup>	<u>(19.2)</u>		<u>(19.2)</u>
Total comprehensive income (loss)	(36.8)	(27.9)	(64.7)
PSPA funding commitment as of September 30, 2014	\$140.5		\$140.5
Treasury draws required	34.4	<u>27.9</u>	<u>62.3</u>
Remaining PSPA funding commitment	\$106.1	(\$27.9)	\$78.2
Credit losses <sup>4</sup>	\$18.1		\$18.1
Credit losses (% of average portfolio balance)	1.04%		1.04%

Numbers may not foot due to rounding

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

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

 $<sup>^{3}</sup>$  Includes the global market shock impact on available-for-sale securities.

<sup>&</sup>lt;sup>4</sup> Credit losses are defined as charge-offs, net plus foreclosed property expenses.