



Federal Housing Finance Agency

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Projections of the Enterprises' Financial Performance  
(Stress Tests)

April 30, 2014

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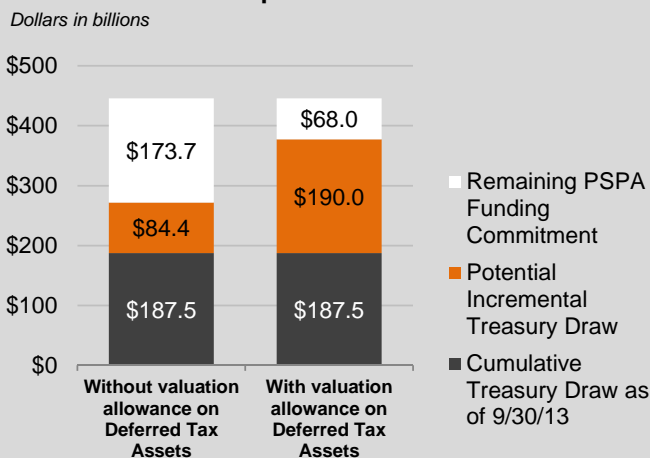
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## Summary

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

- As of September 30, 2013, the Enterprises have drawn \$187.5 billion from the U.S. 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, 2013 was \$258.1 billion.
- In the Severely Adverse scenario, incremental Treasury Draws range between \$84.4 billion and \$190.0 billion depending on the treatment of deferred tax assets.
- The remaining funding commitment under the PSPAs ranges between \$173.7 billion and \$68.0 billion.

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



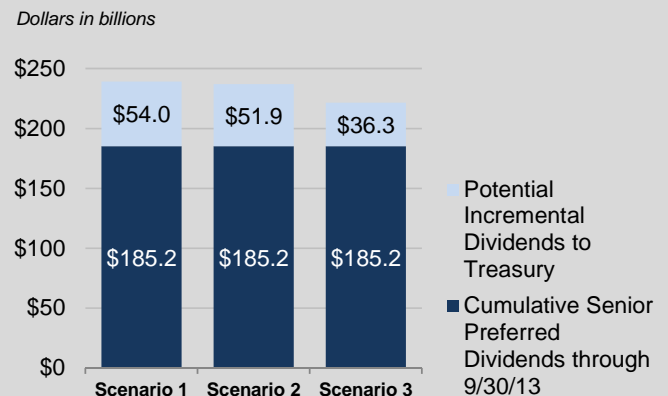
No incremental senior preferred dividends paid in this scenario.

Source: FHFA

### FHFA Scenarios

- In the FHFA scenarios, cumulative, combined Treasury draws at the end of 2015 remain unchanged at \$187.5 billion as neither Enterprise requires additional Treasury draws in any of the three scenarios.
- The combined remaining commitment under the PSPAs is unchanged at \$258.1 billion.
- In the three scenarios the Enterprises pay additional senior preferred dividends to the US Treasury ranging between \$54.0 billion to \$36.3 billion.

#### FHFA Scenarios Results Enterprises Combined



No incremental Treasury draws in the three scenarios. The remaining PSPA funding commitment remains unchanged at \$258.1 billion.

Cumulative senior preferred dividends includes dividends paid in 4Q13 related to 3Q13 financial performance.

Source: FHFA

## Background

- This report provides updated information on possible ranges of future financial results of Fannie Mae and Freddie Mac (the "Enterprises") under specified scenarios, using consistent economic conditions 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 year is the initial implementation of the Dodd-Frank Act Stress Tests.**
- In addition to stress tests required per the Dodd-Frank Act, this year as in previous years, FHFA worked with the Enterprises to develop forward-looking financial projections across three possible house price paths (the "FHFA scenarios"). The Enterprises were required to conduct the FHFA scenarios as they have in the past, in conjunction with the initial implementation of the Dodd-Frank Act Stress Tests. Next year, the Enterprises will be required to conduct only the Dodd-Frank Act Stress Tests.
- FHFA published updated projections of the Enterprises' financial performance under the FHFA Scenarios in October 2012, which can be found in [FHFA's Projections of the Enterprises' Financial Performance, October 2012](#). The projections have been updated to reflect the current outlook for house prices and interest rates.
- 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.
- FHFA provided the Enterprises with key assumptions for each scenario. The key assumptions used for the Dodd-Frank Act Stress Tests (DFAST) and the FHFA Scenarios are described on page 5. 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.

## Scenario Assumptions

Key assumptions for each of the scenarios discussed in this report are listed in Table 1. House price paths influence projections of credit expenses through the mark-to-market loan-to-value ratios of guaranteed mortgages, which impact the probabilities of default, projections of loss given default and loss severity. Assumptions about the prices of securities held in the retained portfolios affect mark-to-market losses. Assumptions about growth of the retained portfolios and the credit guarantee books influence projections of revenue (net interest income and guarantee fee income, respectively.) The instantaneous default of the largest counterparty affects mark-to-market losses.

**Table 1: Scenario Assumptions**

<b>Key Factors</b>	<b>DFAST Severely Adverse Scenario</b>	<b>FHFA Scenario 1</b>	<b>FHFA Scenario 2</b>	<b>FHFA Scenario 3</b>
<b>Residential House prices</b>	- CoreLogic Index - Nine quarter decline of 25%	- Moody's "Stronger Near-term Rebound" - Case-Shiller National Index - Nine quarter increase of 13%	- Moody's "Baseline Forecast" - Case-Shiller National Index - Nine quarter increase of 12%	- Moody's "Second Recession" - Case-Shiller National Index - Decline through 2014 of 4%; nine quarter decrease of 2%
<b>Securities prices</b>	Non-agency prices fall by 20% to 90% at the start of the forecast horizon	ABS and CMBS prices fall by 5% to 10% at the start of the forecast horizon	Same as FHFA Scenario 1	Same as FHFA Scenario 1
<b>Credit Guarantee Book growth</b>	Management discretion	Zero growth in credit guarantees through year end 2016.	Same as FHFA Scenario 1	Same as FHFA Scenario 1
<b>Retained Portfolio growth</b>	Management discretion, but consistent with the terms of the PSPAs.	The retained portfolios decline per the terms of the PSPAs.	Same as FHFA Scenario 1	Same as FHFA Scenario 1
<b>Counterparty Default</b>	Instantaneous default of the largest counterparty for Securities Financing Transactions and derivatives	Management discretion	Same as FHFA Scenario 1	Same as FHFA Scenario 1

## DFAST Severely Adverse Scenario Results

As of September 30, 2013, the combined remaining funding commitment under the PSPAs was \$258.1 billion. In the Severely Adverse scenario, incremental Treasury Draws range between \$84.4 billion and \$190.0 billion depending on the treatment of deferred tax assets. The remaining funding commitment under the PSPAs is \$173.7 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 \$68.0 billion.

**Table 2: DFAST Severely Adverse Scenario Results**

### Cumulative Projected Financial Metrics (Q4 2013 - Q4 2015)

(Dollars in billions)

	Results without re-establishing valuation allowance on deferred tax assets	Impact of re-establishing valuation allowance on deferred tax assets	Results with re-establishing valuation allowance on deferred tax assets
Pre-provision net revenue <sup>1</sup>	\$47.0		\$47.0
(Provision) benefit for credit losses	(110.7)		(110.7)
Mark-to-market gains (losses) <sup>2</sup>	(13.3)		(13.3)
Global market shock impact on trading securities and counterparty	<u>(9.8)</u>		<u>(9.8)</u>
Net income before taxes	(86.8)		(86.8)
(Provision) benefit for taxes	35.3	(105.5)	(70.2)
Other comprehensive income (loss) <sup>3</sup>	<u>(38.8)</u>		<u>(38.8)</u>
Total comprehensive income (loss)	(90.3)	(105.5)	(195.8)
Dividends paid	-	-	-
<b>PSPA funding commitment as of September 30, 2013</b>	<b>\$258.1</b>		<b>\$258.1</b>
Treasury draws required	<u>84.4</u>	105.5	<u>190.0</u>
<b>Remaining PSPA funding commitment</b>	<b>\$173.7</b>	<b>(105.5)</b>	<b>\$68.0</b>
Credit losses <sup>4</sup>	\$92.4		\$92.4
Credit losses (% of average portfolio balance)	2.0%		2.0%

<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 the global market shock impact on available-for-sale securities.

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

Numbers may not foot due to rounding

## FHFA Scenarios Results

Under the three scenarios used in the projections, cumulative Treasury draws at the end of 2015 remain unchanged at \$187.5 billion as neither Enterprise requires additional Treasury draws. The combined remaining commitment under the PSPAs is unchanged at \$258.1 billion.

In the three scenarios, the Enterprises pay additional senior preferred dividends to the US Treasury ranging between \$54.0 billion in Scenario 1 to \$36.3 billion in Scenario 3.

**Table 3: FHFA Scenarios Results**

<i>(Dollars in billions)</i>	<b>Cumulative Projected Financial Metrics (Q4 2013 - Q4 2015)</b>		
	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
Pre-provision net revenue <sup>1</sup>	\$75.3	\$74.8	\$70.8
(Provision) benefit for credit losses	2.2	(0.5)	(20.4)
Mark-to-market gains (losses) <sup>2</sup>	(2.1)	(2.1)	(2.1)
Net income before taxes	75.4	72.3	48.3
(Provision) benefit for taxes	(22.0)	(20.9)	(12.5)
Other comprehensive income <sup>3</sup>	(3.1)	(3.1)	(3.1)
Total comprehensive income	50.4	48.3	32.7
Dividends paid	(54.0)	(51.9)	(36.3)
Treasury draws required	-	-	-
<b>Remaining PSPA funding commitment</b>	<b>\$258.1</b>	<b>\$258.1</b>	<b>\$258.1</b>

<sup>1</sup> Includes net interest income, security impairments, 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 fair value gains (losses) on available-for-sale securities.

## DFAST Severely Adverse Scenario Results versus FHFA Scenario 3 Results

A number of assumptions contribute to higher losses in the DFAST Severely Adverse scenario compared to FHFA Scenario 3. First, the house price path in the DFAST Severely Adverse scenario is significantly more pessimistic than in FHFA Scenario 3. Furthermore the decline in value of non-agency securities is substantially higher in the DFAST Severely Adverse scenario. In addition, the DFAST Severely Adverse scenario includes the effect of the default of a large counterparty, which the FHFA scenario does not include.

**Table 4: DFAST Severely Adverse Scenario Results versus FHFA Scenario Results**

<i>(Dollars in billions)</i>	<b>Cumulative Projected Financial Metrics (Q4 2013 - Q4 2015)</b>	
	<b>DFAST Severely Adverse</b>	<b>FHFA Scenario 3</b>
Pre-provision net revenue <sup>1</sup>	\$47.0	\$70.8
(Provision) benefit for credit losses	(110.7)	(20.4)
Mark-to-market gains (losses) <sup>2</sup>	(13.3)	(2.1)
Global market shock impact on trading securities and counterparty	<u>(9.8)</u>	<u>-</u>
Net income before taxes	(86.8)	48.3
(Provision) benefit for taxes	35.3	(12.5)
Other comprehensive income <sup>3</sup>	<u>(38.8)</u>	<u>(3.1)</u>
Total comprehensive income	(90.3)	32.7
Dividends paid	-	(36.3)
PSPA funding commitment as of September 30, 2013	258.1	258.1
Treasury draws required	84.4	-
<b>Remaining PSPA funding commitment</b>	<b>\$173.7</b>	<b>\$258.1</b>
<b><i>Assuming re-establishing a valuation allowance on deferred tax assets</i></b>		
PSPA funding commitment as of September 30, 2013	258.1	
Treasury draws required	<u>190.0</u>	
<b>Remaining PSPA funding commitment</b>	<b>\$68.0</b>	

<sup>1</sup> Includes net interest income, security impairments, 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.

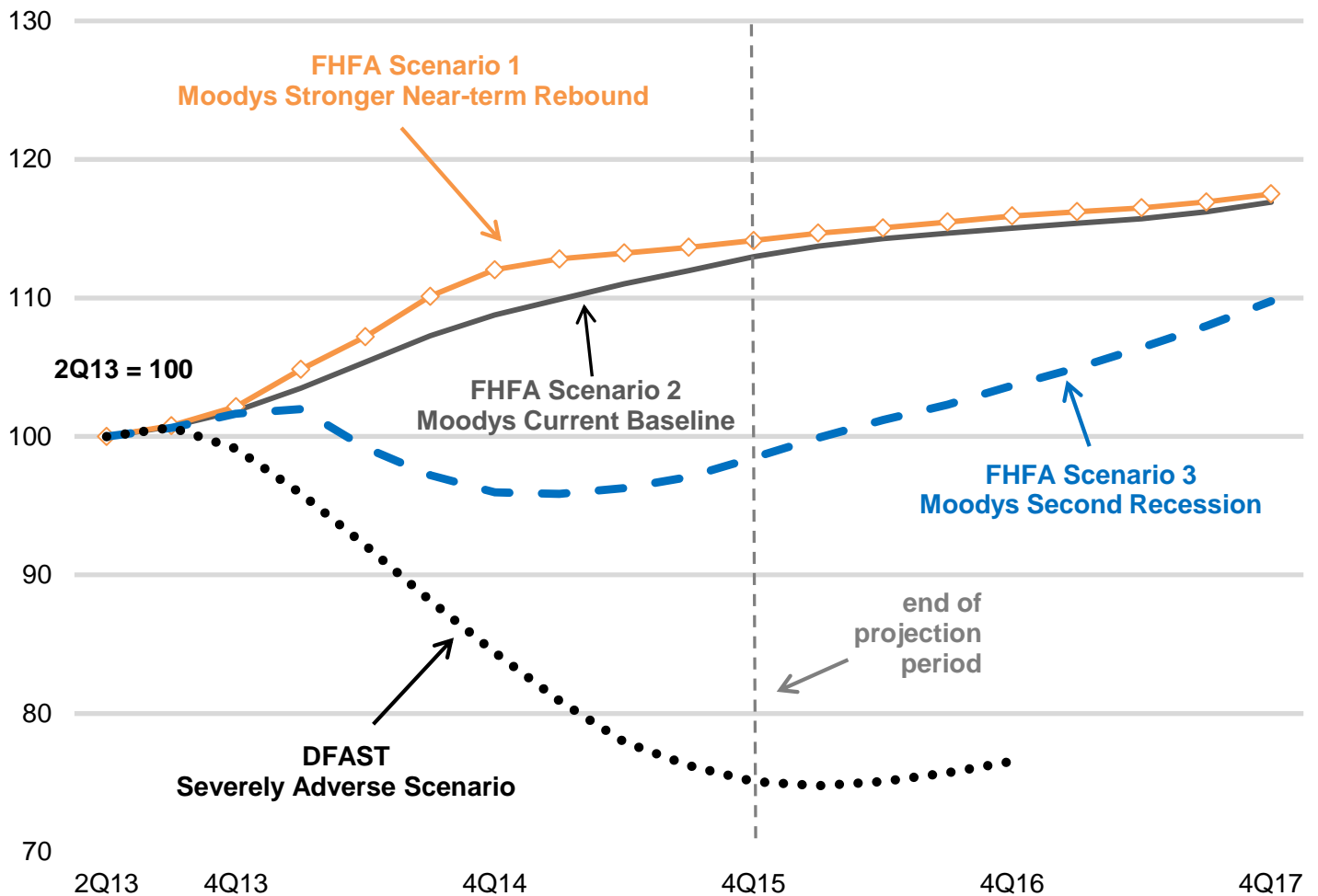
<sup>3</sup> Includes fair value gains (losses) on available-for-sale securities.



## Comparison of House Price Paths

House price changes have been the major driver of credit losses at the Enterprises. A wide range of possible future paths exist for house prices at the national and local levels. Given the high level of uncertainty about overall economic conditions in general and the U.S. housing markets in particular, FHFA directed the Enterprises to project financial results for Moody's current baseline and two additional house price paths. Moody's considers "Second Recession" to be a downside alternative to the Current Baseline and "Stronger Near-term Rebound" to be an upside alternative to the Current Baseline. The house price path in the DFAST Severely Adverse scenario is significantly more pessimistic than that in any of the three FHFA scenarios.

**Figure 1: Comparison of House Price Paths**



Source: FHFA

## FHFA Scenario Results Over Time

FHFA has published annual projections of the Enterprises' financial results (the "FHFA Scenarios") since October 2010. As illustrated in Figure 2, the projected financial results have improved each year driven by these key factors. First, the Enterprises' single-family portfolio quality has improved over time reducing the exposure to single-family credit. As illustrated in Figure 3, the Enterprises' single-family credit guarantee portfolios now have substantially fewer delinquent loans, less exposure to vintages with non-traditional products, and higher equity than the portfolios in 2010.

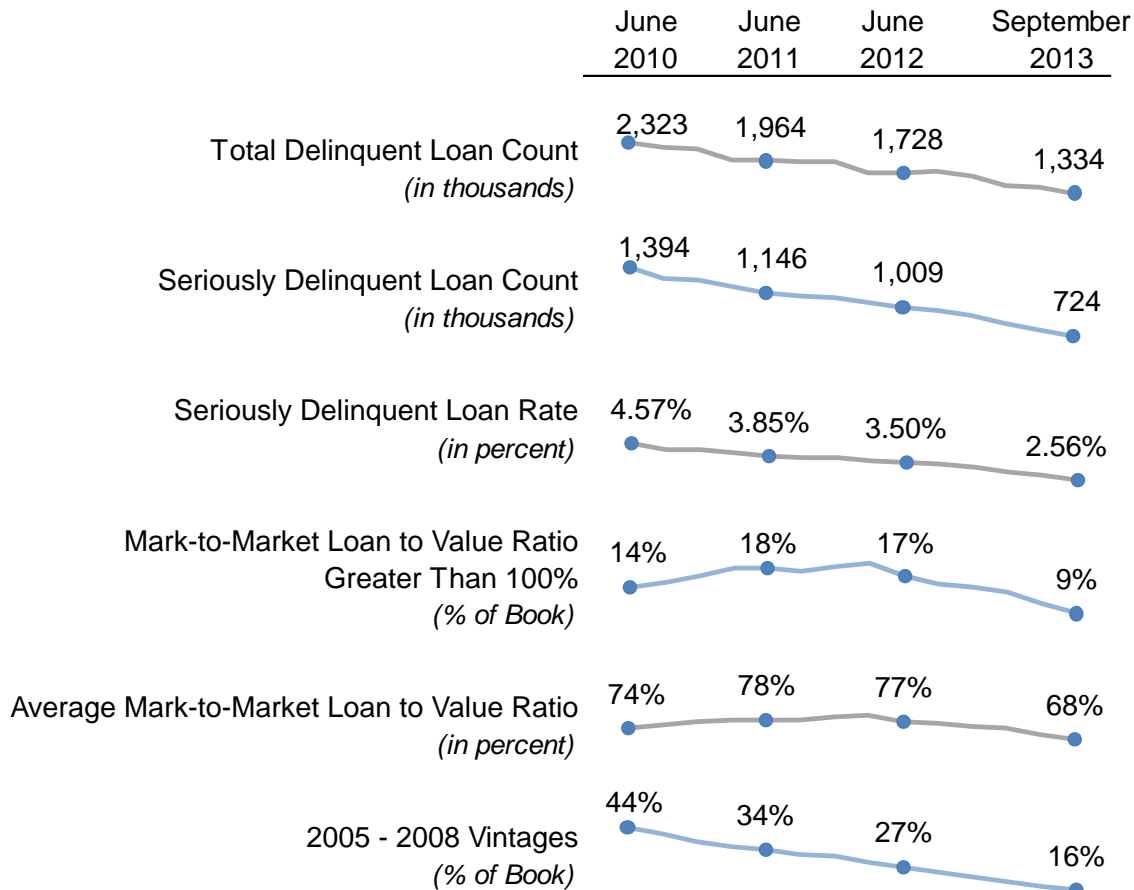
**Figure 2: The Enterprises' Projected Treasury Cumulative Draws under FHFA Scenario 3**

(Dollars in billions)

### FHFA Scenario 3

Report Date	Oct 2010	Oct 2011	Oct 2012	Apr 2014
Portfolio Date	Jun 2010	Jun 2011	Jun 2012	Sep 2013
Starting Treasury Draw	\$148	\$169	\$187	\$187
Incremental Treasury Draw	<u>215</u>	<u>142</u>	<u>22</u>	<u>0</u>
Projected Cumulative Treasury Draw	\$363	\$311	\$209	\$187

**Figure 3: The Enterprises' Single-Family Credit Guarantee Portfolio Quality over time**

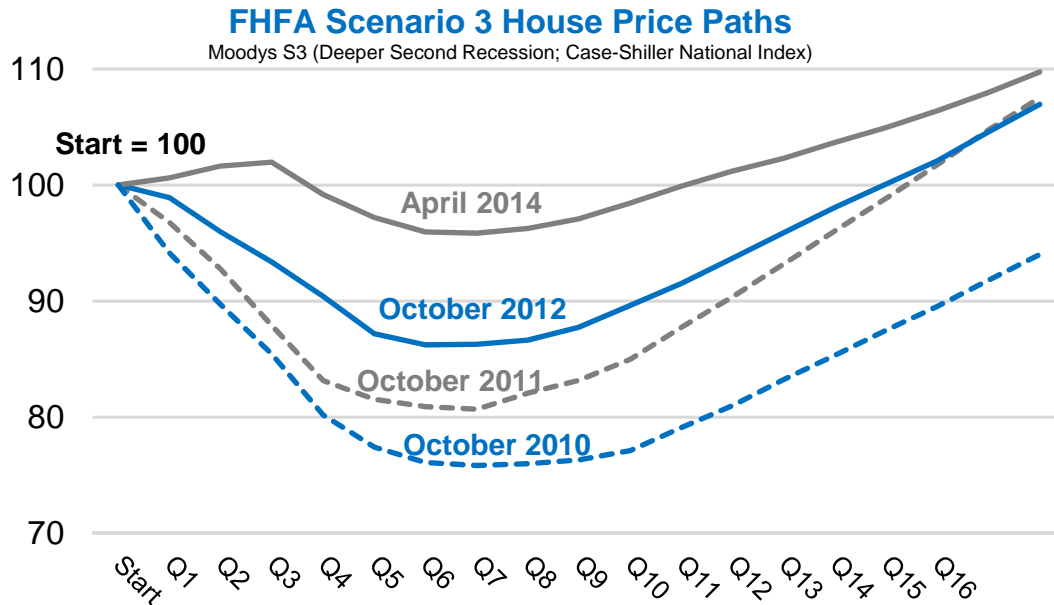


Source: FHFA

## FHFA Scenario Results Over Time (continued)

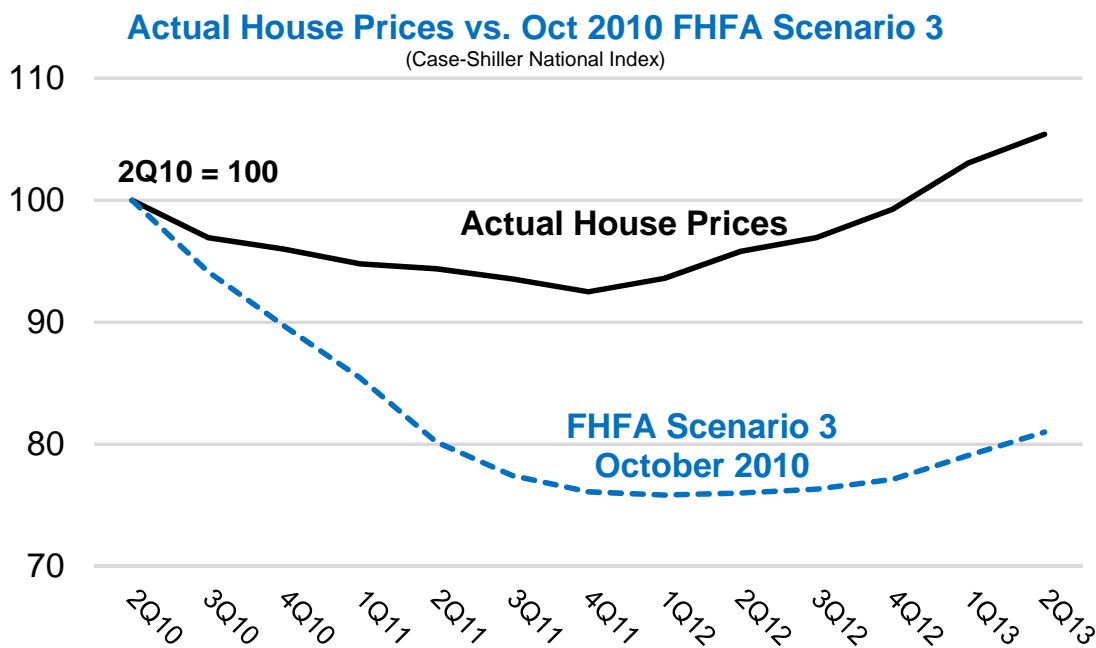
The second contributing factor to improving projections of financial results since 2010 is the house price path assumptions used in the projections. As illustrated in Figure 4, the most severe projected house price path has become less pessimistic over time as the housing market recovers. Furthermore, the actual house price path has been much better than the most severe projected path as illustrated in Figure 5. Going forward, the FHFA Scenarios will be replaced by the Dodd-Frank Act Stress Tests.

**Figure 4: FHFA Scenario 3 House Price Paths Over Time**



Source: FHFA

**Figure 5: FHFA House Price Path vs. Actual House Prices**



Source: FHFA

# Appendix

## DFAST Severely Adverse Scenario Results – Fannie Mae

### Cumulative Projected Financial Metrics (Q4 2013 - Q4 2015)

(Dollars in billions)

	Results without re-establishing valuation allowance on deferred tax assets	Impact of re-establishing valuation allowance on deferred tax assets	Results with re-establishing valuation allowance on deferred tax assets
Pre-provision net revenue <sup>1</sup>	\$31.0		\$31.0
(Provision) benefit for credit losses	(53.3)		(53.3)
Mark-to-market gains (losses) <sup>2</sup>	(11.1)		(11.1)
Global market shock impact on trading securities and counterparty	(6.8)		(6.8)
Net income before taxes	(40.2)		(40.2)
(Provision) benefit for taxes	16.4	(62.7)	(46.3)
Other comprehensive income (loss) <sup>3</sup>	(13.6)		(13.6)
Total comprehensive income (loss)	(37.4)	(62.7)	(100.2)
Dividends paid	-	-	-
PSPA funding commitment as of September 30, 2013	\$117.6		\$117.6
Treasury draws required	34.4	62.7	97.2
<b>Remaining PSPA funding commitment</b>	<b>\$83.1</b>	<b>(62.7)</b>	<b>\$20.4</b>
Credit losses <sup>4</sup>	\$55.9		\$55.9
Credit losses (% of average portfolio balance)	1.9%		1.9%

<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 the global market shock impact on available-for-sale securities.

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

Numbers may not foot due to rounding

## DFAST Severely Adverse Scenario Results – Freddie Mac

### Cumulative Projected Financial Metrics (Q4 2013 - Q4 2015)

(Dollars in billions)

	Results without re-establishing valuation allowance on deferred tax assets	Impact of re-establishing valuation allowance on deferred tax assets	Results with re-establishing valuation allowance on deferred tax assets
Pre-provision net revenue <sup>1</sup>	\$16.0		\$16.0
(Provision) benefit for credit losses	(57.4)		(57.4)
Mark-to-market gains (losses) <sup>2</sup>	(2.2)		(2.2)
Global market shock impact on trading securities and counterparty	<u>(3.0)</u>		<u>(3.0)</u>
Net income before taxes	(46.6)		(46.6)
(Provision) benefit for taxes	18.9	(42.8)	(23.9)
Other comprehensive income (loss) <sup>3</sup>	<u>(25.2)</u>		<u>(25.2)</u>
Total comprehensive income (loss)	(52.9)	(42.8)	(95.8)
Dividends paid	-	-	-
PSPA funding commitment as of September 30, 2013	\$140.5		\$140.5
Treasury draws required	<u>49.9</u>	42.8	<u>92.8</u>
<b>Remaining PSPA funding commitment</b>	<b>\$90.6</b>	<b>(42.8)</b>	<b>\$47.7</b>
Credit losses <sup>4</sup>	\$36.5		\$36.5
Credit losses (% of average portfolio balance)	2.0%		2.0%

<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 the global market shock impact on available-for-sale securities.

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

Numbers may not foot due to rounding

## FHFA Scenarios Results

Fannie Mae <i>(Dollars in billions)</i>	Cumulative Projected Financial Metrics (Q4 2013 - Q4 2015)		
	Scenario 1	Scenario 2	Scenario 3
Pre-provision net revenue <sup>1</sup>	\$46.2	\$45.7	\$43.0
(Provision) benefit for credit losses	6.1	4.6	(6.0)
Mark-to-market gains (losses) <sup>2</sup>	(0.3)	(0.3)	(0.3)
Net income before taxes	51.9	50.0	36.6
(Provision) benefit for taxes	(16.3)	(15.7)	(11.0)
Other comprehensive income <sup>3</sup>	(1.3)	(1.3)	(1.3)
Total comprehensive income	34.3	32.9	24.3
Dividends paid	(36.1)	(34.7)	(26.1)
Treasury draws required	-	-	-
<b>Remaining PSPA funding commitment</b>	<b>\$117.6</b>	<b>\$117.6</b>	<b>\$117.6</b>

Freddie Mac <i>(Dollars in billions)</i>	Cumulative Projected Financial Metrics (Q4 2013 - Q4 2015)		
	Scenario 1	Scenario 2	Scenario 3
Pre-provision net revenue <sup>1</sup>	\$29.1	\$29.2	\$27.8
(Provision) benefit for credit losses	(3.9)	(5.1)	(14.4)
Mark-to-market gains (losses) <sup>2</sup>	(1.7)	(1.7)	(1.7)
Net income before taxes	23.5	22.3	11.7
(Provision) benefit for taxes	(5.6)	(5.2)	(1.5)
Other comprehensive income <sup>3</sup>	(1.7)	(1.7)	(1.7)
Total comprehensive income	16.1	15.4	8.5
Dividends paid	(17.9)	(17.2)	(10.3)
Treasury draws required	-	-	-
<b>Remaining PSPA funding commitment</b>	<b>\$140.5</b>	<b>\$140.5</b>	<b>\$140.5</b>

<sup>1</sup> Includes net interest income, security impairments, 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 fair value gains (losses) on available-for-sale securities.