

2015 Dodd-Frank Act Stress Test Severely Adverse Scenario Results

April 30, 2015

Executive Summary

- Freddie Mac is required to conduct annual stress tests to assess capital adequacy under the Federal Housing Finance Agency (FHFA) rule implementing the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) stress testing requirements.
 - » FHFA's stress test specifications include a Severely Adverse scenario, which reflects a 25% decline in house prices and a severe global market shock.
- Under Dodd-Frank, Freddie Mac is required to disclose publicly the results of its stress test in the Severely Adverse scenario. The 2015 Dodd-Frank Act Stress Test (DFAST) is Freddie Mac's second year of providing the required disclosure.
- Freddie Mac has been operating under conservatorship since September 6, 2008 under the direction of the FHFA, as Conservator.
- Freddie Mac entered into a Preferred Stock Purchase Agreement ("PSPA") with the U.S. Department of the Treasury ("Treasury") pursuant to which Treasury purchased Senior Preferred Stock of Freddie Mac and agreed to make certain funding available to Freddie Mac as needed to prevent Freddie Mac from having a negative net worth.
 - » Freddie Mac has drawn \$71.3 billion under the PSPA and currently has \$140.5 billion of funding remaining available to it.
 - » The PSPA provides for a quarterly dividend equal to Freddie Mac's net worth in excess of an amount of capital that was \$2.4 billion in 2014, and declines over time to zero. Because of the sweep dividend requirement, Freddie Mac cannot accumulate or retain capital in excess of the small and declining amount of capital permitted by the PSPA.
 - » In the event of a quarterly loss in excess of its capital, Freddie Mac would need to draw funds under the PSPA in order to avoid having a negative net worth.
- As prescribed by FHFA, Freddie Mac is disclosing the results of the stress test in the Severely Adverse scenario in two different versions – one that reflects having to reestablish the valuation reserve on our deferred tax assets (DTA) and one that does not reflect having to reestablish the DTA valuation reserve.
- Stress test results as of September 30, 2014 under the Severely Adverse scenario show substantial funding available under the PSPA after exhausting the \$2.4 billion of capital allowed by the PSPA.
 - » The Severely Adverse scenario (without re-establishing a valuation allowance on our DTA) indicates \$34 billion of additional draws, leaving \$106 billion of remaining PSPA funding.
 - » The Severely Adverse scenario (with re-establishing a valuation allowance on our DTA) indicates \$62 billion of additional draws, leaving \$78 billion of remaining PSPA funding.

Stress Test Overview

Background

- Dodd-Frank requires certain financial companies with more than \$10 billion in assets that are regulated by a primary federal financial regulatory agency to perform annual stress tests to assess capital adequacy
- FHFA provided the scenarios for the 2015 Dodd-Frank annual stress test in December 2014
- Stress tests results as of 9/30/2014 were submitted to FHFA and the Federal Reserve (through FHFA) on February 5, 2015

FHFA Dodd-Frank Stress Test

- Three required scenarios: Baseline, Adverse, Severely Adverse
- Nine-quarter planning horizon: 4Q14 – 4Q16 (begins with 9/30/2014 balance sheet)
- Key assumptions provided by FHFA
- Assesses capital adequacy (sufficiency of remaining funding commitment under PSPA) ⁽¹⁾

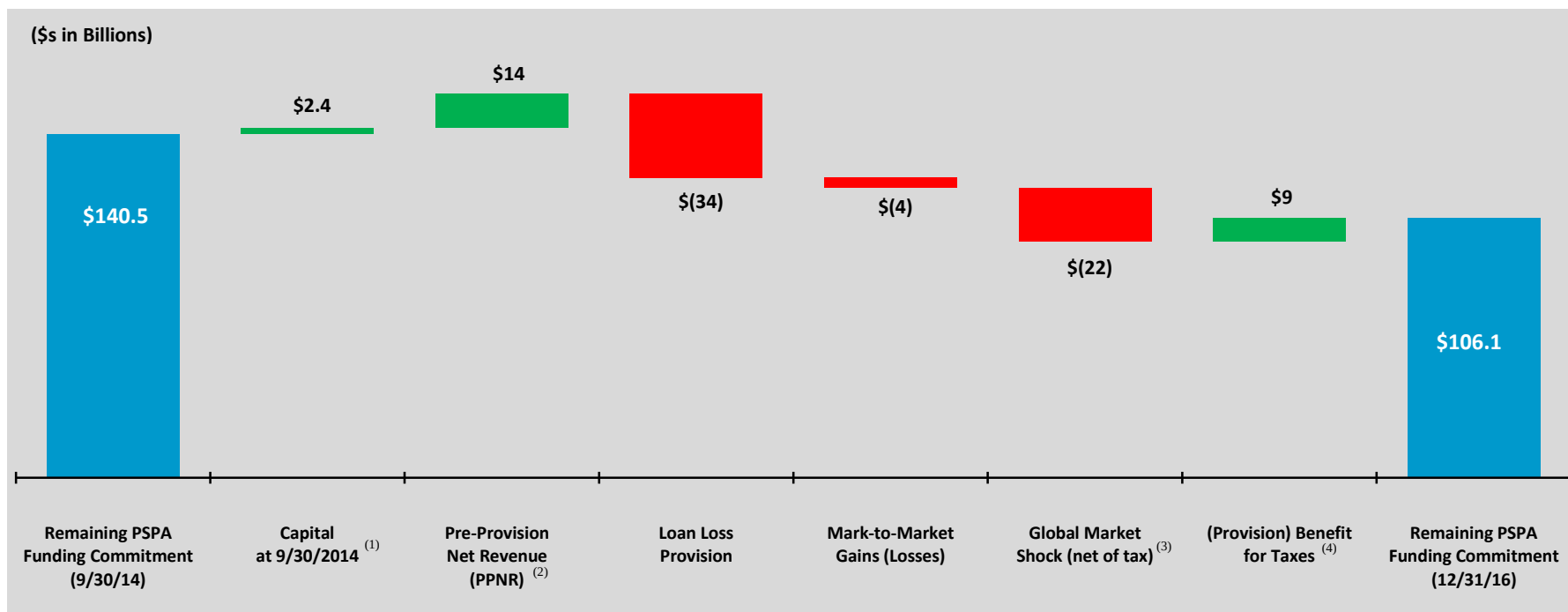
Overall stress test results reviewed by Board of Directors, CEO, CFO, Interim co-CERO, and other key stakeholders

(1) Including \$2.4 billion permitted capital reserve as of September 30, 2014.

Severely Adverse Results – Without Re-establishing Valuation Allowance On DTA



- Severely Adverse scenario, without re-establishing a valuation allowance on DTA, results in \$106 billion of remaining funding under PSPA (\$34 billion of additional draws).



(1) Equity was \$5.2 billion as of 9/30/2014; reflects capital after \$2.8 billion of dividends paid to Treasury in 4Q14.

(2) Includes estimated operational risk losses.

(3) Includes \$4 billion change in AOCI not related to global market shock and estimated impact of counterparty default scenario.

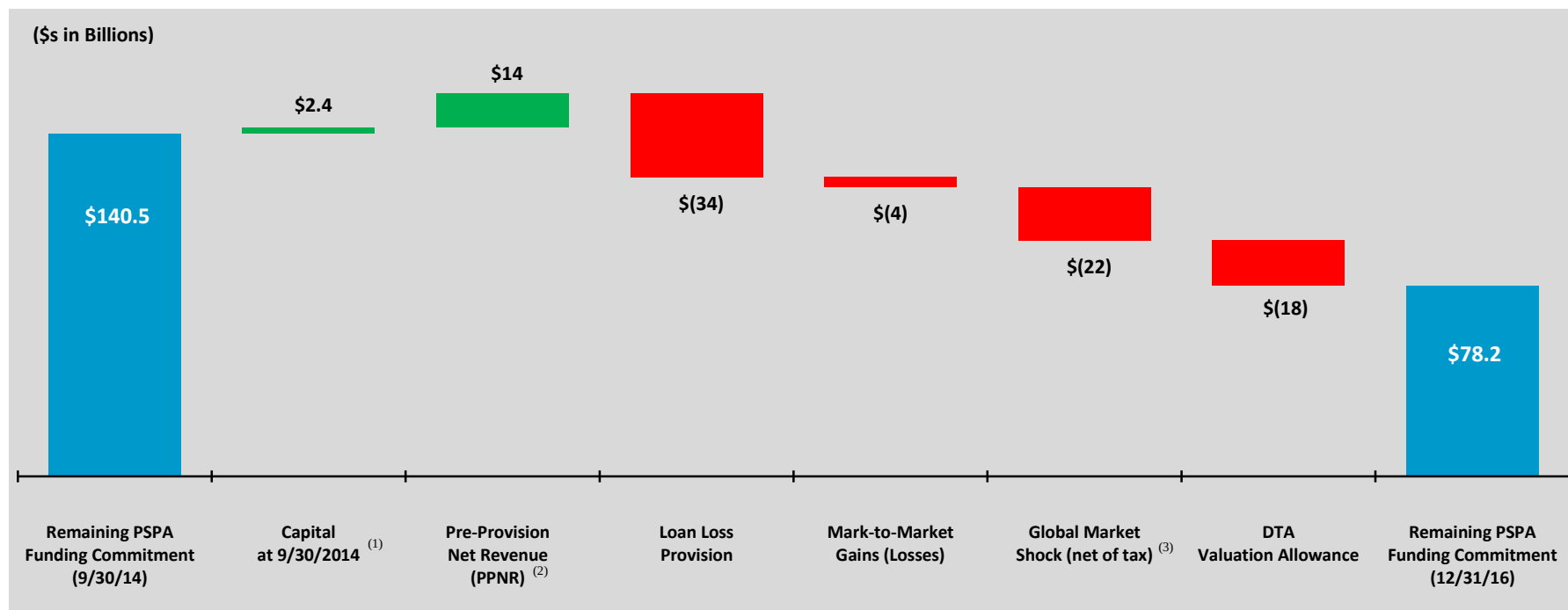
(4) Benefit for taxes includes 35% tax rate on pre-tax net loss.

Numbers may not foot due to rounding

Stress test results are not expected outcomes. They are modeled projections based on hypothetical economic conditions prescribed by FHFA. Actual outcomes may be very different.

Severely Adverse Results – With Re-establishing Valuation Allowance On DTA

- Severely Adverse scenario, with re-establishing a valuation allowance on DTA, results in \$78 billion of remaining funding under PSPA (\$62 billion of additional draws).



(1) Equity was \$5.2 billion as of 9/30/2014; reflects capital after \$2.8 billion of dividends paid to Treasury in 4Q14.

(2) Includes estimated operational risk losses.

(3) Includes \$4 billion change in AOCI not related to global market shock and estimated impact of counterparty default scenario.

Numbers may not foot due to rounding

Stress test results are not expected outcomes. They are modeled projections based on hypothetical economic conditions prescribed by FHFA. Actual outcomes may be very different.

Severely Adverse Scenario Results

- Without re-establishing valuation allowance on DTA: Comprehensive loss of \$37 billion over nine quarters results in \$34 billion of additional draws, leaving \$106 billion of remaining funding under PSPA.
- With re-establishing valuation allowance on DTA: Comprehensive loss of \$65 billion over nine quarters results in \$62 billion of additional draws, leaving \$78 billion of remaining funding under PSPA.

(\$s in billions)	Cumulative Projected Financial Metrics (Q42014 - Q42016)		
	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
1 Pre-provision net revenue (PPNR) ⁽¹⁾	\$ 14.0	-	\$ 14.0
2 (Provision) benefit for credit losses	(34.3)	-	(34.3)
3 Mark-to-market gains (losses) ⁽²⁾	(4.1)	-	(4.1)
4 Global Market Shock impact on trading securities and counterparty	(2.6)	-	(2.6)
5 Net income (loss) before taxes	(27.0)	-	(27.0)
6 (Provision) benefit for taxes ⁽³⁾	9.4	(27.9)	(18.5)
7 Other Comprehensive Income (loss) ⁽⁴⁾	(19.2)	-	(19.2)
8 Total Comprehensive Income (Loss)	(36.8)	(27.9)	(64.7)
9 PSPA funding commitment as of September 30, 2014	140.5	-	140.5
10 Treasury draws required	34.4	27.9	62.3
11 Remaining PSPA funding commitment	106.1	(27.9)	78.2
12 Credit losses (\$s) ⁽⁵⁾	(18.1)	-	(18.1)
13 Credit losses (% of average portfolio balance)	1.0%	-	1.0%

(1) Includes net interest income, security impairments, estimated operational risk losses, foreclosed property income (expense), and other non-interest income (expense).

(2) Includes fair value gains (losses) on derivative and trading securities, and other gains (losses) on investment securities, excluding impact of global market shock.

(3) \$27.9 billion impact includes \$9.4 billion benefit for taxes (35% tax rate on pre-tax net loss) and \$18.5 billion of re-establishing valuation allowance on DTA.

(4) Includes the global market shock impact on available-for-sale securities.

(5) Credit losses include net charge-offs plus foreclosed property expenses.

Numbers may not foot due to rounding

Stress test results are not expected outcomes. They are modeled projections based on hypothetical economic conditions prescribed by FHFA. Actual outcomes may be very different.

Appendix: Stress Test Assumptions and Methodologies

Severely Adverse Key Assumptions Provided by FHFA



Macroeconomic Variables	
Residential House Prices (<i>9-Quarter Decline</i>)	-25%
Commercial Real Estate (<i>9-Quarter Decline</i>)	-35%
Real Gross Domestic Product (<i>9-Quarter Decline</i>)	-3%
Unemployment Rate (<i>Peak</i>)	10%
Interest-Rate Variables	
30-yr Mortgage Rate (<i>Ending</i>)	4.7%
10-yr Treasury Rate (<i>Ending</i>)	1.9%
Global Market Shock	
Instantaneous Price Shocks on Non-agency Securities	-20% to -90%
Instantaneous Interest Rate, Volatility, Option-Adjusted-Spread (OAS) Shocks, and Default of Largest Derivative/Reverse Repurchase Counterparty	10-yr Rates -116 bps Volatility -40 to 150 bps MBS OAS +150 bps

Stress Test Components

Pre-Provision Net Revenue (PPNR)

Net interest income, security impairments, estimated operational risk losses, foreclosed property income (expense), and other non-interest income (expense)

Loan Loss Provision

Credit loss provision expenses related to estimated single-family (SF) credit losses, troubled debt restructurings (TDRs), potential losses from recovering less than 100% of the company's exposure to mortgage insurer (MI) counterparties, and multifamily (MF) credit provisions

Mark-to-Market Gains (Losses)

Mark-to-market gains (losses) related to changes in fair value of derivatives and trading securities, and other gains (losses) on investment securities

Global Market Shock (net of tax)

Instantaneous global shocks of interest rates, volatility, agency MBS OAS, and non-agency MBS prices applied to trading and available-for-sale (AFS) securities, and the estimated impact of a default of the company's largest capital markets counterparty. Includes tax effect on AFS securities that the company intends to hold to recovery

Pre-Provision Net Revenue (PPNR)

Severely Adverse
PPNR: \$14B (pre-tax)
(4Q14 – 4Q16)

Description

- Reflects projections of net interest income, security impairments, estimated operational risk losses, foreclosed property income (expense), and other non-interest income (expense) over the nine-quarter planning horizon.
- Material risks covered include interest-rate risk, credit risk for non-agency MBS, and operational risk.

Methodologies

- Projects cash flows using FHFA-provided interest rate paths and internal assumptions including business volume, retained portfolio size, funding mix, and spreads.
- Estimates other-than-temporary impairments of non-agency MBS, incorporating FHFA's house-price and interest-rate assumptions.
- Estimated operational risk losses informed by the company's historical operational loss experience and relevant external data consistent with supervisory expectations.

Loan Loss Provision (LLP)

Severely Adverse
LLP: \$(34)B (pre-tax)
(4Q14 – 4Q16)

Description

- Reflects credit loss provision expenses related to estimated SF credit losses, TDRs, potential losses from recovering less than 100% of the company's exposure to MI counterparties, and MF credit provisions.
- Captures mortgage credit risk, which is the largest component of Freddie Mac's stress test losses.

Methodologies

- Estimates SF provision expenses using Freddie Mac's internal models, enhanced credit loss forecasting methodology and key house-price and interest-rate inputs provided by FHFA.
- Incorporates estimated impacts of other relevant FHFA-provided macroeconomic variables, such as unemployment rate and GDP decline.
- SF loss projections also reflect haircuts to MI payment obligations and the assumption that current loan modification programs will continue.
- Estimates MF loan loss provision using regression of material macroeconomic variables provided by FHFA (unemployment, 3-month Treasury yield, commercial real estate price index) versus Freddie Mac's historical loan loss reserves.

Other Components

Mark-to-Market Gains (Losses) (MTM)

Severely Adverse
MTM: \$(4)B (pre-tax)
(4Q14 – 4Q16)

Description

- Reflects mark-to-market gains (losses) from changes in fair value of derivatives and trading securities due to changes in interest rates.
- Material risk covered includes interest rate risk.

Methodologies

- Applies FHFA-specified interest rate paths to estimate changes in fair value of derivatives and trading securities.

Global Market Shock (GMS)

Severely Adverse
GMS: \$(22)B (post-tax)⁽¹⁾
(4Q14 – 4Q16)

Description

- The GMS is an instantaneous loss on Freddie Mac's trading and AFS securities in the first quarter that is not recovered during the nine-quarter planning horizon. This shock is treated as an add-on to the macroeconomic and financial market environment specified in the stress test.
- Includes impact of a default of the company's largest capital markets counterparty.

Methodologies

- Applies FHFA-specified shocks for interest rates, volatility, agency MBS OAS, and non-agency price shocks to the company's MBS holdings.
- Includes tax effect on AFS securities that the company has both the intent and ability to hold to recovery.
- Estimated impact of default of largest capital markets counterparty based on derivative/repo collateral shortfall in the stress test. Assumes instantaneous default in the first quarter of the planning horizon with zero recovery.

(1) Portion related to trading and counterparty defaults is pre-tax.

Description of Key Risks

Mortgage Credit Risk

- Mortgage credit risk is the risk that a borrower fails to make timely payments on a mortgage owned or guaranteed by Freddie Mac.

Interest Rate and Other Market Risk

- Interest-rate risk is the risk that changes in interest rates could result in a loss of value or future earnings. Freddie Mac is exposed to interest-rate risk primarily in its retained portfolio.
- The retained portfolio also exposes the firm to spread risk, where changes in the spread between retained portfolio assets and related funding and derivatives could result in a loss.

Counterparty Credit Risk

- Counterparty risk is the risk that a counterparty will fail to meet its contractual obligations to Freddie Mac. The company's counterparty exposures include, but are not limited to, single-family seller/servicers that sell mortgage loans to the company and service the loans, MIs, and counterparties to derivative and repurchase agreement transactions.

Operational Risk

- Operational risk is the risk of loss resulting from inadequate or failed internal processes, systems, human factors, or external events. Operational risk is inherent in the company's business activities and can manifest itself in various ways including accounting or operational errors, business interruptions, fraud and technology failures.

Limitations

- Management judgment is required in various assumptions and methodologies (e.g., new business volumes, guarantee fees, portfolio composition, funding spreads, credit loss estimates). Actual stress scenario risks could materialize in unforeseen ways and potentially significantly alter estimates of earnings, losses and PSPA draws.
- The company uses models to determine relationships between macroeconomic variables and business results. Historical relationships between macroeconomic variables and business results during a stress environment may not accurately forecast future outcomes.
- The company relies on third-party models to execute certain stress test projections. We may have limited insights into the inner workings of those models, which increases the risk of inconsistency across models.
- Stress test results are not expected outcomes. They are modeled projections based on hypothetical economic conditions prescribed by FHFA. Actual outcomes may be very different.