
# DODD-FRANK ACT STRESS TESTS

# SEVERELY ADVERSE SCENARIO

August 8, 2016

Federal Housing Finance Agency

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# Summary

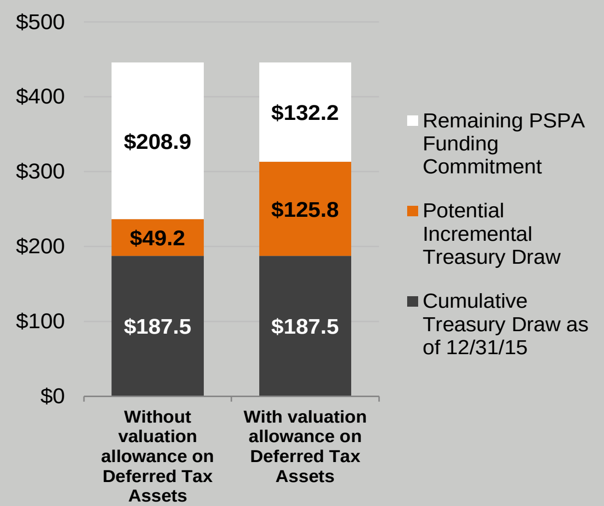
## Background

- This report provides updated information on possible ranges of future financial results of Fannie Mae and Freddie Mac (the "Enterprises") under severely adverse conditions. The severely adverse conditions assumed were identical 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 third 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 December 31, 2015, 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 December 31, 2015 was $258.1 billion.
- Under the Severely Adverse scenario, incremental Treasury draws are projected to range between $49.2 billion and $125.8 billion depending on the treatment of deferred tax assets.
- The remaining funding commitment under the PSPAs after the projected draws ranges between $208.9 billion and $132.2 billion depending on the treatment of deferred tax assets.

**Dodd-Frank Act Stress Tests**
**Severely Adverse Scenario Results**
**Enterprises Combined**
***($ in billions)***




Source : FHFA

## DFAST Severely Adverse Scenario - Overview

The **2016 DFAST Severely Adverse scenario** as designed by the Federal Reserve is based upon a severe global recession which is accompanied by a period of elevated corporate financial stress and negative yields on short-term U.S. Treasury securities. It includes large reductions in asset prices, significant widening of corporate bond spreads, increased investor risk aversion, 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 forecast horizon for the implementation of the 2016 DFAST is December 31, 2015 through March 31, 2018.

In the 2016 DFAST Severely Adverse scenario, U.S. real GDP begins to decline immediately and reaches a trough in the first quarter of 2017 representing a decline of 6.25 percent from the pre-recession peak. The rate of unemployment increases from 5 percent at the beginning of the forecast horizon to a peak of 10 percent in the third quarter of 2017. The consumer price inflation rate increases from a starting point of about 0.25 percent to a peak of 1.9 percent in the third quarter of 2017.

As a result of the severe decline in real economic activity and muted inflation levels, short-term Treasury rates decline to negative 0.50 percent by the third quarter of 2016 and remain there through the end of the forecast horizon. For the purposes of this scenario, it is assumed that market adjustment to negative short-term rates proceeds without causing any additional market disruptions. In the scenario, the 10-year Treasury rate drops to about 0.25 percent in the first quarter of the forecast horizon before gradually and consistently increasing to a level of about 1.25 percent in the first quarter of 2018.

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 bonds versus long-term Treasury securities increase to 5.75 percent by the end of 2016. In addition, equity prices fall by approximately 50 percent from the start of the forecast horizon through the end of 2016 and equity market volatility increases substantially, approaching levels last seen in 2008. Home prices decline by approximately 25 percent through the third quarter of 2018 and commercial real estate prices fall by 30 percent through mid-2018.

Finally, the 2016 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 these losses in future quarters by the Enterprises.

## DFAST Severely Adverse Scenario - Combined

As of December 31, 2015 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 $49.2 billion and $125.8 billion depending on the treatment of deferred tax assets. The remaining funding commitment under the PSPAs after the projected draws is $208.9 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 $132.2 billion.

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

| *(Dollars in billions)* | Cumulative Projected Financial Metrics (Q1 2016 - Q1 2018) | | |
|---|---|---|---|
| | 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[1] | $30.2 | | $30.2 |
| (Provision) benefit for credit losses | (66.2) | | (66.2) |
| Mark-to-market gains (losses)[2] | (11.0) | | (11.0) |
| Global market shock impact on trading securities and counterparty | (9.3) | | (9.3) |
| Net income before taxes | (56.4) | | (56.4) |
| (Provision) benefit for taxes | 20.5 | (76.4) | (55.9) |
| Other comprehensive income (loss)[3] | (15.3) | | (15.3) |
| Total comprehensive income (loss) | (51.3) | (76.4) | (127.6) |
| Dividends | (0.3) | (0.3) | (0.6) |
| PSPA funding commitment as of December 31, 2015 | $258.1 | | $258.1 |
| Treasury draws required | 49.2 | 76.7 | 125.8 |
| **Remaining PSPA funding commitment** | **$208.9** | **(76.7)** | **$132.2** |
| Credit losses [4] | $27.0 | | $27.0 |
| Credit losses (% of average portfolio balance) | 0.56% | | 0.56% |

[1] Includes net interest income, security impairments, operational risk losses, foreclosed property income (expense), and other non-interest income/expenses.
[2] Includes fair value gains (losses) on derivative and trading securities, and other gains (losses) on investment securities.
[3] Includes the global market shock impact on available-for-sale securities.
[4] Credit losses are defined as charge-offs, net plus foreclosed property expenses.

Numbers may not foot due to rounding

## DFAST Severely Adverse Scenario - Fannie Mae

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

| *(Dollars in billions)* | Cumulative Projected Financial Metrics (Q1 2016 - Q1 2018) | | |
|---|---|---|---|
| | 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[1] | $14.4 | | $14.4 |
| (Provision) benefit for credit losses | (42.0) | | (42.0) |
| Mark-to-market gains (losses)[2] | (2.5) | | (2.5) |
| Global market shock impact on trading securities and counterparty | (3.8) | | (3.8) |
| Net income before taxes | (33.9) | | (33.9) |
| (Provision) benefit for taxes | 12.6 | (50.3) | (37.7) |
| Other comprehensive income (loss)[3] | (2.6) | | (2.6) |
| Total comprehensive income (loss) | (24.0) | (50.3) | (74.3) |
| Dividends | - | | - |
| PSPA funding commitment as of December 31, 2015 | $117.6 | | $117.6 |
| Treasury draws required | 22.8 | 50.3 | 73.0 |
| **Remaining PSPA funding commitment** | **$94.8** | **(50.3)** | **$44.5** |
| Credit losses [4] | $16.7 | | $16.7 |
| Credit losses (% of average portfolio balance) | 0.55% | | 0.55% |

[1] Includes net interest income, security impairments, operational risk losses, foreclosed property income (expense), and other non-interest income/expenses.
[2] Includes fair value gains (losses) on derivative and trading securities, and other gains (losses) on investment securities.
[3] Includes the global market shock impact on available-for-sale securities.
[4] Credit losses are defined as charge-offs, net plus foreclosed property expenses.

Numbers may not foot due to rounding

## DFAST Severely Adverse Scenario - Freddie Mac

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

| *(Dollars in billions)* | Cumulative Projected Financial Metrics (Q1 2016 - Q1 2018) | | |
|---|---|---|---|
| | 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[1] | $15.8 | | $15.8 |
| (Provision) benefit for credit losses | (24.2) | | (24.2) |
| Mark-to-market gains (losses)[2] | (8.6) | | (8.6) |
| Global market shock impact on trading securities and counterparty | (5.5) | | (5.5) |
| Net income before taxes | (22.5) | | (22.5) |
| (Provision) benefit for taxes | 7.9 | (26.1) | (18.2) |
| Other comprehensive income (loss)[3] | (12.7) | | (12.7) |
| Total comprehensive income (loss) | (27.3) | (26.1) | (53.4) |
| Dividends | (0.3) | (0.3) | (0.6) |
| PSPA funding commitment as of December 31, 2015 | $140.5 | | $140.5 |
| Treasury draws required | 26.4 | 26.4 | 52.8 |
| **Remaining PSPA funding commitment** | **$114.1** | **($26.4)** | **$87.7** |
| Credit losses[4] | $10.3 | | $10.3 |
| Credit losses (% of average portfolio balance) | 0.59% | | 0.59% |

[1] Includes net interest income, security impairments, operational risk losses, foreclosed property income (expense), and other non-interest income/expenses.
[2] Includes fair value gains (losses) on derivative and trading securities, and other gains (losses) on investment securities.
[3] Includes the global market shock impact on available-for-sale securities.
[4] Credit losses are defined as charge-offs, net plus foreclosed property expenses.

Numbers may not foot due to rounding