2023 Dodd-Frank Act Stress Test Severely Adverse Scenario Results

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Executive Summary

- Freddie Mac's (the company's) statutory mission is to provide liquidity, stability, and affordability to the U.S. housing market. Consistent with its charter, the company's business is focused exclusively on the U.S. residential mortgage market
- The company has been operating under conservatorship since September 6, 2008, under the direction of the Federal Housing Finance Agency (FHFA), as Conservator. Freddie Mac's ability to access funds from Treasury under the Senior Preferred Stock Purchase Agreement (PSPA) is critical to keeping the company solvent
- Freddie Mac is required to conduct annual stress tests to assess capital adequacy under FHFA's rule implementing the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) stress testing requirements
- FHFA's stress test specifications include two required scenarios (Baseline scenario and Severely Adverse scenario with and without a valuation allowance against our Deferred Tax Assets (DTA)), each reflecting projections over a nine-quarter horizon. The Severely Adverse scenario requires a 38% decline in house prices, 40% drop in commercial real estate prices, and a severe global market shock (with our largest counterparty defaulting)
- Results are not expected outcomes. They are modeled projections based on hypothetical economic conditions. Actual outcomes may be very different
- The company also is required to disclose certain capital information, such as net worth, and available common equity tier 1 (CET1) calculated in accordance with requirements of the FHFA Enterprise Regulatory Capital Framework (ERCF) Rule

Stress Test Overview

- **Background**
  - Dodd-Frank, as amended, requires certain financial companies with more than $250 billion in assets that are regulated by a primary federal financial regulatory agency to perform annual stress tests to assess capital adequacy
  - For the Government-Sponsored Enterprises (GSEs), the FHFA-prescribed stress test assesses whether the GSEs will have the capital necessary to absorb losses as a result of severely adverse economic conditions
  - FHFA provided the key scenario assumptions for the 2023 Dodd-Frank Act Stress Test (DFAST) in March 2023. The nine-quarter planning horizon includes 1Q23 to 1Q25, beginning with the December 31, 2022 balance sheet
  - The company's 2023 DFAST results were submitted to FHFA and the Federal Reserve (sent by FHFA) on May 19, 2023
  - Overall DFAST results were reviewed by Freddie Mac's Board of Directors, senior management, and other key stakeholders
- **Key Economic Variables for the Severely Adverse Scenario as prescribed by FHFA**

Macroeconomic Variables	**2023 DFAST**
➢ Residential House Prices (Trough)	(38)%
➢ Commercial Real Estate (Trough)	(40)%
➢ Real Gross Domestic Product (Peak-to-Trough)	(9)%
➢ Unemployment Rate (Peak)	10%
Interest-Rate Variables (Range)	
➢ 30-yr Mortgage Rate (4Q 22 6.7%)	3.3% - 4.0%
➢ 10-yr Treasury Rate (4Q 22 3.9%)	0.8% - 1.3%
➢ Short-term Rate (4Q 22 4.0%)	0.1% - 1.7%
Global Market Shock	
➢ Instantaneous Price Shock on Residential Mortgage-Backed Securities:	Up to (85)%

Severely Adverse Scenario Results

		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	
	Cumulative Projected Financial Metrics (Q1 2023 - Q1 2025)	Billions of dollars	Percent of average assets[7]		Billions of dollars	Percent of average assets[7]
1	Pre-provision net revenue[1]	29.6	0.93%		29.6	0.93 %
2	(Provision) benefit for credit losses	(21.4)			(21.4)	
3	Mark-to-market gains (losses)[2]	0.8			0.8	
4	Global market shock impact on trading securities and counterparty	(3.2)			(3.2)	
5	Net income before taxes	5.8	0.18%		5.8	0.18 %
6	(Provision) benefit for taxes	(1.2)		(4.6)	(5.8)	
7	Other comprehensive income (loss)[3]	(0.6)			(0.6)	
8	Total comprehensive income (loss)	4.0	0.12%	(4.6)	(0.6)	(0.02)%
9	Net Worth as of March 31, 2025	41.0			36.4	
10	CET1 Capital as of March 31, 2025[4]	(53.0)			(50.4)	
11	Credit losses[5]	(13.7)			(13.7)	
12	Credit losses (% of average portfolio balance)[6]	0.40 %			0.40 %	

[1] Includes net interest income, 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 global market shock impact on available-for-sale securities.

[4] Represents hypothetical common equity tier 1 capital deficit as of March 31, 2025.

[5] Credit losses are defined as charge-offs, net plus foreclosed property expenses.

[6] Average portfolio balance over the nine-quarter planning horizon.

[7] Average total assets over the nine-quarter planning horizon.

Appendix:
Stress Test Assumptions and Methodologies

Stress Test Components

Pre-Provision Net Revenue (PPNR)	Business revenues (e.g., net interest income and guarantee fees), benefit and cost of credit risk transfer (CRT) transactions, and operating expenses (e.g., administrative expenses, operational risk losses, foreclosed property expense)
Provision for Credit Losses	Provision related to the Single-Family (SF) and Multifamily (MF) businesses, reflecting estimated credit losses
Mark-to-Market Gains (Losses) (MTM)	Mark-to-market gains (losses) related to changes in fair value of derivatives, certain loans and trading securities and debt and other gains (losses) on investment securities not included in global market shock
Global Market Shock (GMS)	Instantaneous global shocks of interest rates, volatility, agency mortgage-backed securities (MBS) Option Adjusted Spread (OAS), and non-agency MBS prices applied to trading securities, loans held at fair value, and Available-For-Sale (AFS) securities (after-tax) as well as the estimated impact of a default of the company's largest counterparty
ERCF	Projections reflect equity items (e.g., retained earnings, junior preferred stock) and adjustments and deductions to available CET1 capital (e.g., DTA deduction) as specified under the ERCF Rule

Pre-Provision Net Revenue

Description	▪ PPNR reflects business revenues and expenses ▪ Includes projections of net interest income, non-interest income, benefit and cost of CRT transactions, foreclosed property expenses, operational risk losses (the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events), administrative and other non-interest expense for the existing book of business, and new business during the nine-quarter horizon ▪ Material risks covered include interest-rate risk, credit risk for the SF portfolio as it relates to CRT recoveries, and foreclosed property expense, and operational risk
Methodologies	▪ Uses internal business assumptions for business volume, retained portfolio size, guarantee fees, risk-sharing transactions (CRT recovery benefit is primarily based on provision expense), debt funding, and spreads for assets and debt ▪ Projects cash flows using internal models, incorporating internal business assumptions, and FHFA-provided scenario interest-rate paths ▪ Operational risk loss for the severely adverse scenario is calculated with an internal operational loss forecast model that aggregates historical loss and scenario analysis

Provision for Credit Losses

Description	▪ SF provision for credit losses reflects estimated credit losses, including costs due to reimbursement of servicer advances of property taxes and insurance. Credit loss amounts reflect mortgage insurance recoveries adjusted for the FHFA-prescribed counterparty haircuts ▪ Captures SF mortgage credit risk, which is the largest component of Freddie Mac's stress test losses ▪ MF loan loss provision represents the credit provision recognized over the nine-quarter planning horizon pertaining to our MF business
Methodologies	▪ Single-Family: • Leveraged Moody's FHFA All Transactions Index at the metropolitan statistical area and state levels (which aggregates to the FHFA-provided national level house price appreciation) and then are used in Freddie Mac's internal models and stress test processes • Estimated scenario credit loss and reserves using internal credit loss forecasting model and key house-price and interest-rate inputs from FHFA • Loans are assumed to perform in a similar way as in the most recent economic cycle that covers the housing market crisis and recovery, controlling for loan characteristics • Loss projections reflect haircuts provided by FHFA to mortgage insurance payment obligations • CRT benefit for the consolidated SF portfolio is recognized as a separate asset under generally accepted accounting principles (GAAP) and included in PPNR along with the CRT costs and foreclosed property expense ▪ Multifamily: • MF loan loss provision employs a third-party model using the probability of default / loss given default framework that calculates lifetime undiscounted net credit loss based on: (1) loan characteristics of the forecasted portfolio balances and activities, and (2) market macroeconomic forecasts provided by FHFA and supplemented with Moody's Comprehensive Capital Analysis and Review scenarios • MF loan level credit losses are aggregated in accordance with securitization structures to reflect credit protection from subordination. The MF loan loss reserve balance is reduced by credit protection received via security subordination

Other Components

Mark-to-Market Gains (Losses)

Description	▪ Mark-to-market gains (losses) related to changes in fair value of derivatives, certain loans and trading securities and debt and other gains (losses) on investment securities not included in global market shock ▪ Material risk covered includes interest rate risk ▪ We consider hedge accounting in our results
Methodologies	▪ Applies FHFA-specified interest rate shocks to estimated changes in fair value of derivatives, loans, and securities

Global Market Shock

Description	▪ The GMS is an instantaneous shock on Freddie Mac's assets in the first quarter that is not recovered during the nine-quarter forecast horizon. This shock is treated as an add-on that is exogenous to the macroeconomic and financial market environment specified in the stress test scenario ▪ The GMS captures market risks related to changes in OAS, as well as price shocks ▪ Also includes the estimated impact of a default of the company's largest counterparty
Methodologies	▪ Applies FHFA-specified shocks of OAS to Freddie Mac's agency loans and security holdings ▪ Applies FHFA-specified price shocks to Freddie Mac's non-agency MBS holdings, aggregated by product-type, credit rating, and issuance year ▪ Includes tax benefit on AFS securities that the company has both the intent and ability to hold to recovery ▪ As specified by FHFA, results include the greater fair value loss of either the GMS or the macroeconomic scenario

Capital

Description	▪ Capital reflects the resources available to absorb losses and meet regulatory requirements ▪ Net Worth is the amount that total assets exceed total liabilities ▪ CET1 includes components of net worth, such as retained earnings, and includes certain adjustments and deductions ▪ Given the capital projections are based on income statement and balance sheet projections, the material risks covered include the risks highlighted under the individual components
Methodologies	▪ Capital actions comply with the terms of the PSPA, including the level of dividends to pay over the planning horizon ▪ Certain adjustments and deductions (primarily the DTA) to available CET1 capital are projected in accordance with the requirements of the ERCF Rule

Description of Key Drivers

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. Financial projections include certain offsets from credit enhancements, such as mortgage insurance and CRT transactions ▪ SF credit risk varies significantly by book year. Since 2008, Freddie Mac has enhanced its credit and underwriting policies and purchased fewer loans with higher risk characteristics, which has contributed to improvements in the credit quality of the SF guarantee business. The borrower's equity in the property (expressed as the loan-to-value ratio) is a key input to the estimated losses. Actual house price growth reduces potential future losses ▪ MF credit risk is substantially reduced as a result of the K-deal securitization program, where Freddie Mac guarantees only the most senior tranches of K-deals, resulting in a significant portion of credit risk being transferred to the investors in subordinated tranches
Market Risk Including Interest Rate and Spread Risk	▪ Market risk is the economic risk associated with adverse changes in interest rates, volatility, and spreads ▪ Freddie Mac's GAAP financials are exposed to interest rate risk. The company employs hedge accounting to mitigate interest rate risk ▪ The retained portfolio is exposed to spread risk, related to adverse changes in the spread between security prices in related market sectors or benchmark rates
Counterparty Credit Risk	▪ Counterparty credit risk is the risk that an institutional counterparty is unable to meet its contractual obligations to Freddie Mac. The company's counterparty credit exposures include, but are not limited to, counterparties to derivative and repurchase agreement transactions, mortgage insurers, and insurers and reinsurers through our agency credit insurance structure, and other insurance transactions where we purchase insurance policies as part of our CRT activities
Operational Risk	▪ Operational risk is the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, systems, or from 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