2019 Annual Stress Test Disclosure

RESULTS OF THE FEDERAL HOUSING FINANCE AGENCY SUPERVISORY SEVERELY ADVERSE SCENARIO

FHLBank INDIANAPOLIS | BUILDING PARTNERSHIPS. SERVING COMMUNITIES.

November 15, 2019
As Required by the Dodd-Frank
Wall Street Reform and Consumer Protection Act

Executive Summary

Background

- The Dodd-Frank Wall Street Reform and Consumer Protection Act (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 those companies have the capital necessary to absorb losses as a result of adverse economic conditions.
- In September 2013, the Federal Housing Finance Agency (FHFA), regulator of the Federal Home Loan Banks (FHLBanks), implemented annual stress testing rules for the FHLBanks as required by the Dodd-Frank Act. These rules were amended in November 2015.
- In accordance with these rules, and the FHFA Order received in March 2019, the FHLBank of Indianapolis ("Bank") reported the results of its stress tests to the FHFA by August 31, 2019 and is publicly disclosing the summary results of the *severely adverse economic* scenario in this document.

Requirements

- FHFA provided the inputs and key assumptions for the *severely adverse* scenario.
- The stress tests are based on the portfolios of the Bank as of December 31, 2018. The time horizon for the stress tests is nine quarters starting with the first quarter of 2019 and extending through the first quarter of 2021, but the results do not reflect the impact of new accounting standards that become effective during the period.
- The stress test results under the FHFA *severely adverse* scenario, as disclosed in this document, are not forecasts of expected or likely outcomes during the time horizon. Rather, these are modeled simulations based solely on the FHFA's *severely adverse* scenario and other specific required assumptions.
- There will be changes to the stress testing requirements in future cycles as a result of The Economic Growth, Regulatory Relief, and Consumer Protection Act.

Executive Summary (cont.)

Results

- Our historical financial information, prepared under accounting principles generally accepted in the United States of America (GAAP), is available in reports filed with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2018.
- Our stress test results demonstrate capital adequacy under the FHFA's *severely adverse* economic scenario as of March 31, 2021, and compliance with all regulatory capital requirements throughout all nine quarters covered by the stress tests. Under the simulations:
    - Our regulatory capital ratio (which is permanent capital divided by total assets) at March 31, 2021 is 5.65%, exceeding the minimum regulatory requirement of 4.00%.
    - Our regulatory leverage capital ratio (which is permanent capital multiplied by 1.5 divided by total assets) at March 31, 2021 is 8.48%, exceeding the minimum regulatory requirement of 5.00%.
    - Total GAAP Capital at March 31, 2021 is $2.9 billion.
    - The *severely adverse* scenario results assume we declare dividends and repurchase excess capital stock during the nine quarter period consistent with our current business plan. However, any distribution of dividends or repurchases of excess capital stock remain subject to the approval of our board of directors.

Use/Governance

- Stress testing has evolved as an important analytical tool for evaluating capital adequacy under severely adverse economic conditions. We regularly use such stress tests, including those annual stress tests required by the Dodd-Frank Act, in our capital planning to measure our exposure to material risks and evaluate the adequacy of capital resources available to absorb potential losses arising from those risks.
- We take the stress test results into account when making changes to our capital structure; when assessing our exposures, concentrations and risk positions; and when evaluating our overall risk profile.
- The overall stress test process and these results have been reviewed with our board of directors.

Severely Adverse Scenario
Key Assumptions Provided by FHFA

Macroeconomic Variables	
Residential House Prices *(Peak-to-trough decline with no recovery during the 9-quarter time horizon)*	-26%
Commercial Real Estate Prices *(Peak-to-trough decline with no recovery during the 9-quarter time horizon)*	-35%
Real Gross Domestic Product *(Annual GDP growth rate)*	-6.7% (2019), -0.7% (2020)
Unemployment Rate *(Peak)*	10.0% (Q3 2020)
Interest Rate Variables	
30-yr Mortgage Rate *(Lowest/Average during the 9-quarter time horizon)*	3.9%/4.2%
10-yr Treasury Rate *(Lowest/Average during the 9-quarter time horizon)*	0.8%/1.1%
3-Month Treasury Rate *(Lowest/Average during the 9-quarter time horizon)*	0.1%/0.1%
Global Market Shock	
Instantaneous OAS shocks on:	
Cash Agency CMBS	OAS +96.6 bps
AMA Commitments - Residential Other/ Unspecified	OAS +45.0 bps
Agency Debentures	OAS +53.5 bps

Stress Test Components

Net interest income + other non-interest income, net	Net interest income (expense), operating expenses, and other non-interest income (expense).
Provision for credit losses on mortgage loans	Provision for credit losses related to mortgage loans held for portfolio.
OTTI credit losses	OTTI credit losses for investment securities.
Mark-to-market gains (losses)	Mark-to-market gains (losses) related to changes in fair value of derivatives, trading securities, and other gains (losses) on assets and liabilities held at fair value.
Global market shocks	Instantaneous global shocks of interest rates, volatility, agency mortgage-backed securities (MBS) option-adjusted spreads (OAS), and non-agency MBS prices applied to trading securities, available-for-sale (AFS) securities, and held-to-maturity (HTM) securities that are deemed to have OTTI losses in the stress test scenario. Global shocks applied to AFS and OTTI HTM securities are included in other comprehensive income (loss).
Counterparty default losses	Instantaneous and unexpected default of largest counterparty across secured and unsecured lending, repurchase/reverse repurchase agreements, derivatives exposures, single-family mortgage insurance providers and multifamily credit enhancements, but excludes advances and certain overnight positions.

Severely Adverse Scenario Results

Federal Home Loan Bank of Indianapolis

($ amounts in millions)

			Cumulative Projected Financial Metrics (Q1 2019 – Q1 2021)
1	Net interest income + other non-interest income, net	$	342.72
2	Provision for credit losses on mortgage loans	$	(12.69)
3	OTTI credit losses	$	—
4	Mark-to-market gains (losses)	$	(5.18)
5	Global market shock impact on trading securities	$	—
6	Counterparty default losses	$	(3.38)
7	AHP assessments	$	(37.28)
8	Net income (loss)	$	284.19
9	Other comprehensive income (loss)	$	(318.00)
10	Total comprehensive income (loss)	$	(33.81)
11	Total capital (GAAP) – starting (12/31/2018)	$	3,050.45
12	Total capital (GAAP) – ending (3/31/2021)	$	2,937.52
13	Regulatory capital ratio – starting (12/31/2018)		4.86%
14	Regulatory capital ratio – ending (3/31/2021)		5.65%

These simulations represent hypothetical internal estimates based on applying rules and conditions set forth in the FHFA's severely adverse scenario. These estimates are not forecasts of our expected results and any distribution of dividends or repurchase of capital stock remain subject to approval by our Board of Directors.

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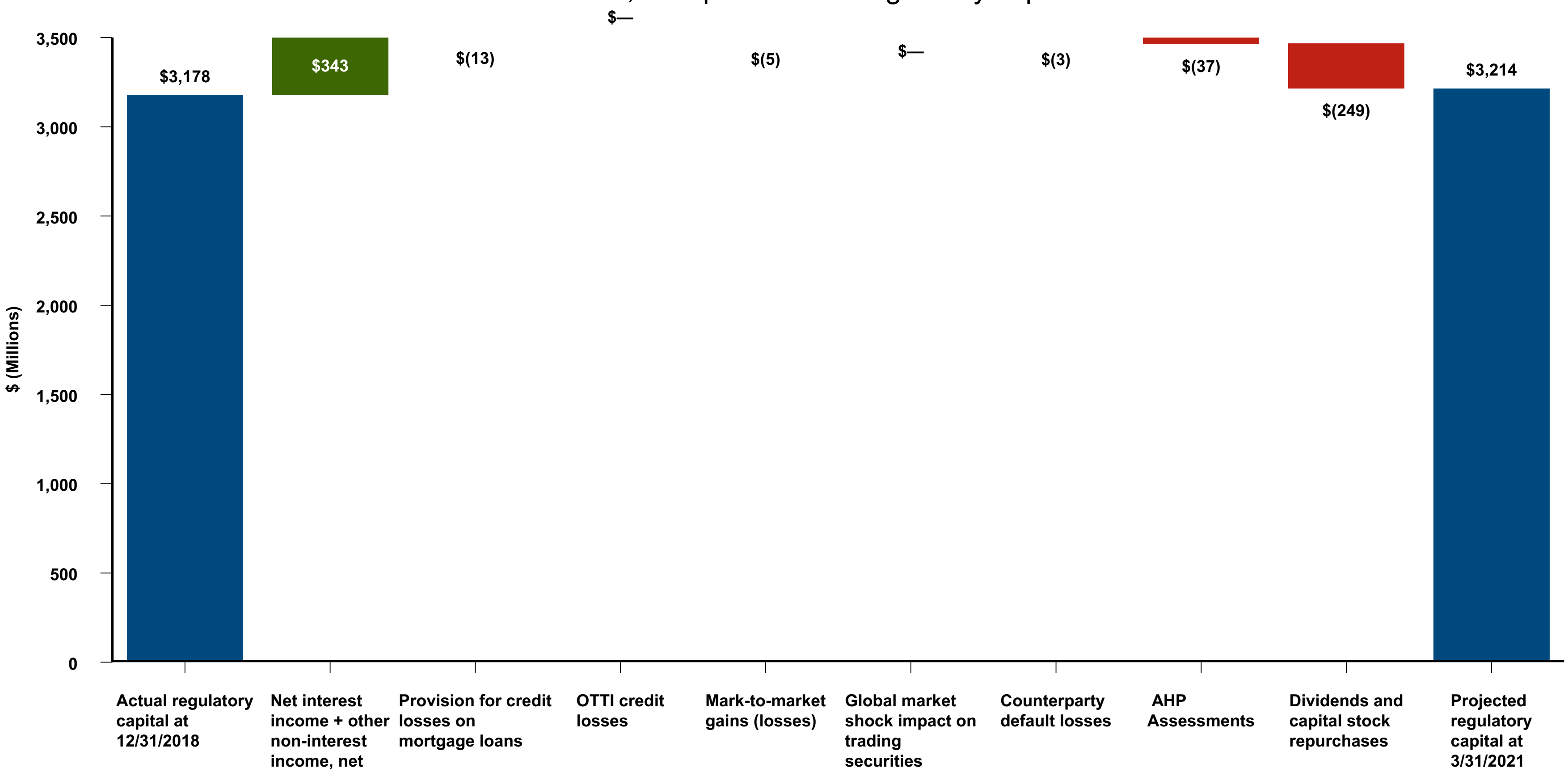
Severely Adverse Scenario Results – Total Regulatory Capital Analysis

- Total regulatory capital, which is defined as the sum of capital stock, retained earnings and mandatorily redeemable capital stock, would increase from $3,178 million at 12/31/2018 to $3,214 million at 3/31/2021.
- All results shown below are modeled simulations, except for actual regulatory capital at 12/31/2018.



These simulations represent hypothetical internal estimates based on applying rules and conditions set forth in the FHFA's Severely Adverse scenario. These estimates are not forecasts of our expected results and any distribution of dividends or repurchase of capital stock remain subject to approval by our Board of Directors.

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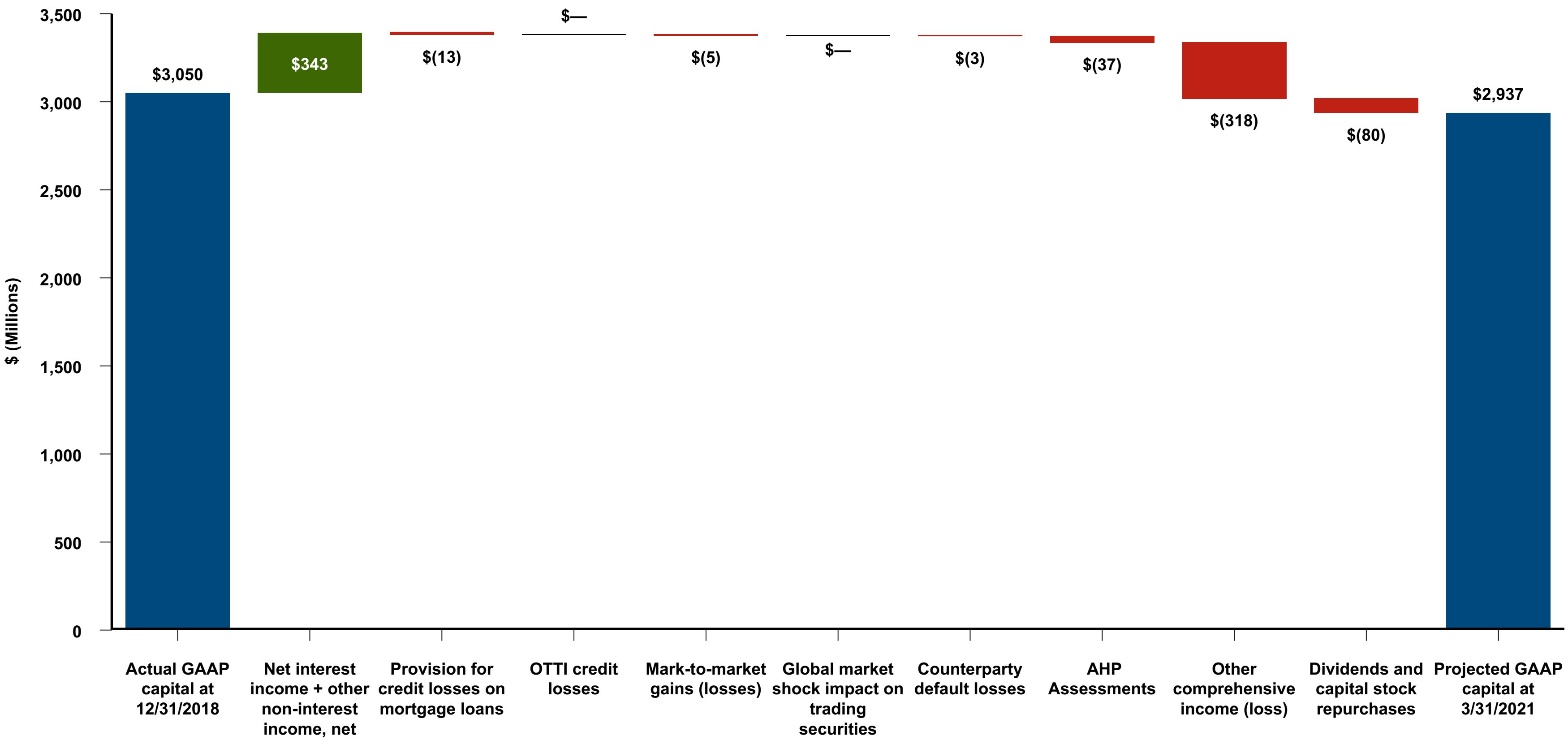
Severely Adverse Scenario Results – Total GAAP Capital Analysis

- Total GAAP capital, which is defined as the sum of capital stock, retained earnings and accumulated other comprehensive income (loss), would decrease from $3.1 billion at 12/31/2018 to $2.9 billion at 3/31/2021.
- All results shown below are modeled simulations, except for actual Total GAAP Capital at 12/31/2018.



These simulations represent hypothetical internal estimates based on applying rules and conditions set forth in the FHFA's Severely Adverse scenario. These estimates are not forecasts of our expected results and any distribution of dividends or repurchase of capital stock remain subject to approval by our Board of Directors.

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Component Methodologies

Net interest income + other non-interest income, net

Description	▪ Reflects projections of net interest income (expense), operating expenses, and other non-interest income (expense) over the nine-quarter time horizon. ▪ Material risks covered include interest-rate risk, operational risk, and business risk.
Methodologies	▪ Estimates net interest income by projecting portfolio balances, funding mix, and spreads using the macroeconomic variables provided by the FHFA and management assumptions. ▪ Non-interest income and expense estimated by management. ▪ Estimates operational risk losses informed by the Bank's historical operational loss experience and relevant external data consistent with supervisory expectations.

Provision for credit losses on mortgage loans

Description	▪ Reflects credit loss provision related to estimated losses on mortgage loans held for portfolio. ▪ Captures mortgage credit risk.

Methodologies	▪ Loan loss reserves forecasted by projecting expected losses using base scenario and adjusting for *severely adverse* scenario assumptions. Specifically:
	  ▪ Forecasts key variables, including collateral recovery rate and PMI/SMI default probability, under the FHFA-provided macroeconomic assumptions.
	  ▪ Forecasts the AMA portfolio losses using internal assumptions consistent with OTTI methodology.
	  ▪ Combines the key variables to compute projected losses. Recognizes the projected losses in the first quarter prescribed by the FHFA Stress Testing template.

OTTI credit losses

Description	▪ Reflects credit-related OTTI losses for non-agency investment securities. ▪ Material risk covered includes credit risk associated with the investment portfolio.
Methodologies	▪ Estimates OTTI of non-agency MBS, by projecting cash flow shortfalls. Incorporates FHFA provided and internal assumptions for housing prices, interest rates, mortgage rates, unemployment rate and monoline insurer performance.

Component Methodologies (cont.)

Mark-to-market gains (losses)

Description	▪ Reflects mark-to-market gains (losses) from changes in fair value of derivatives, trading securities and assets and liabilities held at fair value due to changes in interest rates. ▪ Material risk covered includes interest rate risk.
Methodologies	▪ Applies FHFA-specified interest rates and internal interest rate assumptions through the use of valuation models to estimate changes in fair value of derivatives, trading securities, and assets and liabilities held at fair value.

Global market shocks

Description	▪ The global market shock is an instantaneous decline in market value of trading securities, AFS securities, and those HTM securities that are deemed to have OTTI losses. The instantaneous losses and corresponding reduction of capital are taken in the first quarter of the testing horizon without any future recoveries during the nine-quarter time horizon. This shock is treated as an add-on to the macroeconomic and financial market environment specified in the stress test. Global shocks applied to AFS and OTTI HTM securities are included in other comprehensive income (loss).

Methodologies	▪ Applies FHFA-specified shocks, taken in the first quarter of the forecast horizon, to trading securities, AFS securities, and also used to calculate the non-credit component of OTTI associated with HTM securities:
	  ▪ Non-Agency Securitized Products: Relative market value shock
	  ▪ Agencies: OAS widening

Counterparty default losses

Description	▪ Reflects instantaneous and unexpected default of largest counterparty net exposure. ▪ Material risks covered include secured and unsecured lending, repurchase/reverse repurchase agreements, derivative exposures, single-family mortgage insurance providers and multifamily credit enhancements, but excludes advances and overnight positions.

Methodologies	▪ Estimates credit loss arising from largest counterparty net stressed exposure by applying global market shock to non-cash securities/collateral held or received and derivatives positions including non cash collateral exchanged.
	▪ Incorporates FHFA-provided and management assumptions for:
	  ▪ Interest rates
	  ▪ Credit spreads
	  ▪ Recovery rates

Key Risks Considered

Market Risk	The risk to earnings or capital arising from changes in the market value of mortgage loans, investment securities, or other financial instruments due to changes in the level, volatility, or correlations among financial market rates or prices, including interest rates. Specifically, market risk to the Bank's earnings and capital includes the risk that the market value of its portfolio will decline as a result of changes in interest rates and/or changes in spreads.
Credit Risk	The risk to earnings or capital arising from the default, inability, or unwillingness of a borrower, obligor, or counterparty to meet the terms of any financial obligation with the Bank or otherwise perform as agreed. Specifically, credit risk as it pertained to the stress test includes the risk of loss due to defaults on principal and interest payments on advances, MBS and other investments, interest-rate exchange agreements, mortgage loans and unsecured extensions of credit. Based on the Bank's collateral management practices and further analysis of existing and supplemental collateral support, the Bank projected no credit losses on advances. This is consistent with the history of the FHLBank System which has never experienced a loss on a member advance, even through highly stressful economic environments.
Operational Risk	The risk of loss resulting from inadequate or failed processes, systems, human factors or external events. Operational risk is inherent in the Bank's business activities and can manifest itself in various ways, including accounting or operational errors, business interruptions, fraud and technology failures. This definition includes legal risk, which is the risk of loss arising from defective transactions, litigation or claims made, or the failure to adequately protect company-owned assets.
Business Risk	The risk of an adverse effect on the Bank's profitability resulting from external factors that may occur in both the short and long term. Business risk includes the impact of regulatory risk. Declines in business may affect the Bank's capital levels by reducing its activity-based capital stock balance and slowing the pace at which the Bank can build retained earnings. Additionally, the reduction in capital levels will limit the Bank's ability to purchase additional investments, thereby further limiting potential income and growth.

Limitations

- Management judgment is required in applying various assumptions and methodologies (e.g., advances levels, new mortgage purchase volumes, portfolio composition, funding spreads, credit loss estimates). Actual stress scenario outcomes could materialize in unforeseen ways and potentially alter estimates of earnings, losses and dividends and other capital actions.

- We use models to determine the 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.

- We rely on third-party models to execute certain stress test simulations.

- In certain cases estimates are generated at the aggregate level.