NCUA
National Credit Union Administration

Credit Union Self-Run Supervisory Stress Testing

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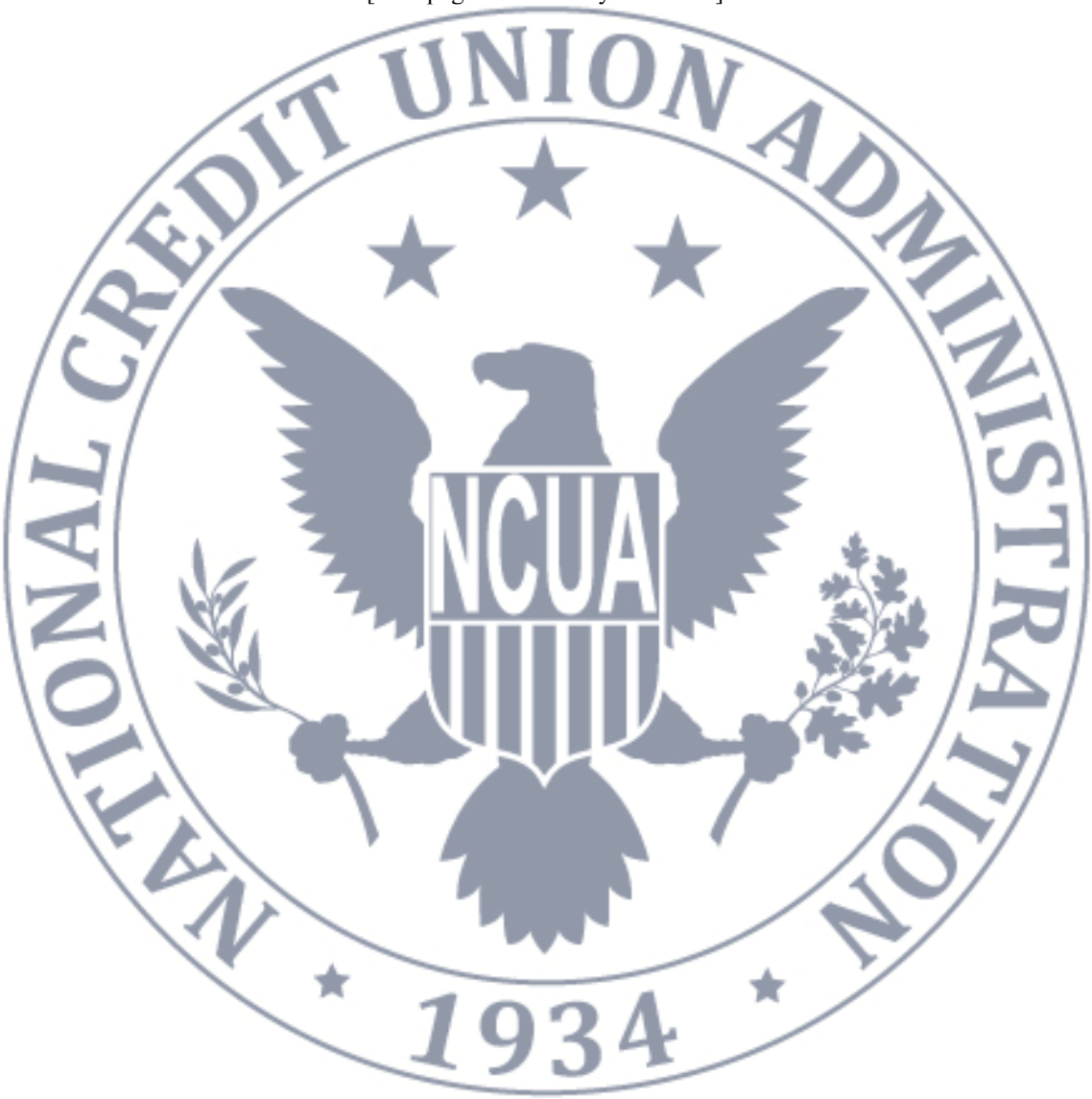

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1. Executive Summary

National Credit Union Administration

The National Credit Union Administration (NCUA) is the independent federal agency created by the U.S. Congress to regulate, charter, and supervise federal credit unions. With the backing of the full faith and credit of the United States, the NCUA administers the National Credit Union Share Insurance Fund, insuring the deposits of more than 125 million credit union account holders in all federal credit unions and an overwhelming majority of state-chartered credit unions.

The agency's mission is to facilitate the availability of credit union services to all eligible consumers, especially those of modest means, through a safe and sound credit union system. Because of this mission, credit union examiners account for the majority of NCUA's staff positions, representing 52 percent of the 1,201 employees onboard as of September 30, 2022.

"Self-Run" Supervisory Stress Tests

This document provides information to credit unions for running "Self-Run" Supervisory Stress Tests (SST). The underlying principle of the SST is the conservative application of risk measurement fundamentals to assess credit union balance sheet resiliency and credit union capital adequacy under stress scenarios. These instructions implement NCUA's guiding principles of independence, consistency, and flexibility into SST.

1. Scenario Variables

1.1. *Prescribed Scenario Variables*: Covered credit unions (credit unions) must utilize the NCUA prescribed stress scenario variables as published by the NCUA on or before February 28 of the year in which the SST and capital plan results are due.

1.2. *Stress Testing Horizon*: The SST horizon will cover 9 quarters for pre-provision net revenue and expense items, and 13 quarters for purposes of forecasting loan loss reserves and associated provisioning expense.

1.3. *Scenario Macroeconomic Variables*: Credit unions will utilize the national macroeconomic variables in the scenario analysis as prescribed by the NCUA. Scenario variables will be published by the NCUA on or before February 28 of each year.

1.4. *Additional Macroeconomics Variables*: Credit unions may choose to project additional economic and financial variables beyond the ones provided by NCUA to estimate losses or revenues for some or all of its products and portfolios; however, these additional variables must not take the place of, or be used in lieu of, the national variables published by the NCUA.

Where the use of additional economic variables enhances the strength and soundness of the analysis, the NCUA expects credit unions to ensure that the paths of any additional variables (including their timing) are consistent with the general economic environment assumed in the NCUA scenarios.

If additional variables are used, credit unions must document and provide the source and/or methodology used in its capital plan submission and list the variable as prescribed in the "Additional Scenario Variables" tab of the Stress Testing Results Template workbook.

1.5. *Interest Rates*: Credit unions will utilize the quarterly interest rates provided by NCUA to interpolate between quarters. For other rate types deemed necessary, but not provided by NCUA, credit unions must document the rates utilized in the "Additional Scenario Variables" tab of the Stress Testing Results Template Workbook and describe the methodology used to develop them in their capital plan submission.

2. Scenario Assumptions

2.1. *Net Zero Growth*: For purposes of the supervisory stress test, credit unions will utilize a static balance sheet approach. Liability balances will remain constant implicitly if members do not join, exit, or change their current level of deposits, savings, IRA, etc. with their credit union. Available principal cash flows and net income will be reinvested into newly originated loans and securities each period. As such, assets are allowed to grow or shrink as determined by Net Income projections.

2.2. *Asset/Liability Mix*: The relative composition of assets and liabilities will remain materially consistent throughout the stress test horizon for all scenarios.

2.3. *Reinvestment*: "As of date" lending standards and practices are held constant where new originations should use similar credit characteristics to the origination in the past 6 months before the inception of the stress scenario forecast. Interest rates on new loans are scenario-specific and depend on reinvestment date. Performance on these new loans should reflect the scenario starting from the reinvestment date and onward.

3. Data

3.1. *Internal vs. External Data*: Credit unions may use either internal or external data to estimate losses and pre-provision net revenue (PPNR) in the SST. Data used to source and calibrate models should reflect current contractual and quality characteristics of assets and liabilities and contain observations of behavior of similar assets and liabilities behavior under various economic cycles.

3.2. *Data Completeness*: For material portfolios and business lines, a covered credit union should generally include all available data in its analysis. Data should not be selectively excluded for material portfolios and business lines based on the changing nature of the ongoing business or activity without strong empirical support.

3.3. *Data Granularity*: Data should provide sufficient granularity and accurately depict contractual elements and risk characteristics for modeling purposes to reflect all main risk factors and performance drivers of the portfolio.

4. Modeling and Computation Methodologies

4.1. Credit unions should ensure material projection approaches, including any specific processes or methodologies employed, are well supported, transparent, and repeatable over time. All modeling methods, assumptions, and observed weaknesses should be documented within the credit union's capital plan submission.

4.2. *Quantitative Approach*: Credit union quantitative approaches for supervisory stress testing must provide a conservative assessment of stress test capital under NCUA scenarios. The approaches must be appropriate for the type and materiality of the business line or portfolio. Quantification methods used to project revenues and losses for material business lines or portfolios must capture performance differences due to transaction level attributes and contractual characteristics of assets and liabilities. Projections must be conducted in an internally consistent manner and follow accounting rules and policies where appropriate.

4.3. *Model overlays, qualitative augmentation, and management adjustments* may be necessary for certain small exposures or when data is not sufficient for appropriate means of quantification. Such outside of the model adjustments may also be used to add layers of conservatism to estimates for approaches that need enhancement for stress scenarios. For these adjustments, the processes must be conducted in a transparent and repeatable way, and documentation must include the reason, process used to arrive at the overlay or augmentation amount, and the attributable impact. A summary of use and impact of overlays and management adjustments on the SST results should also be summarized within the credit union's capital plan submission.

4.4. *Sensitivity Analysis*: Credit unions should understand the sensitivity of its stress testing results to main inputs and key assumptions. Sensitivity analysis should be used to test the robustness of material quantitative approaches and models and provide insight into the inherent uncertainty and imprecision around stress testing estimates through generating a range of potential outcomes. The credit union's approach to sensitivity testing and sensitivity testing results must be summarized within the capital plan.

4.5. *Impact of Adoption of Current Expected Credit Loss (CECL) Accounting*: Credit unions should incorporate the ACL/Net Worth impact of CECL adoption in their 2023 Self-Run Stress tests beginning in the quarter of adoption which would be Q1 2023. In accordance with §702.703 of the Rules and Regulations,

the CECL "transition amount" may be amortized over a 12 quarter "transitional period" for purposes of presenting stress test net worth amounts in the self-run stress tests. Once the "transition amount" impact of the CECL is accounted for, covered credit unions should maintain the current framework for calculating allowance for credit losses and provision expense they have applied in prior year self-run stress test engagements. As part of the SST Supplemental Data Request, credit unions will provide NCUA with both the day one "transition amount" as well as a summary of amortization of that amount over each of the 12 quarters within the SST forecast horizon.

5. Results Generation and Reporting

5.1. Credit unions should have a consistent, transparent, and repeatable process for aggregating enterprise-wide stress test results.

5.2. As noted in the various sections above, credit unions must document and submit as part of their capital plan all information required in the Stress Testing Results Template Workbook.

When providing data through the Template, credit unions should not:

- Change worksheet names,
- Add or remove header rows (e.g., rows before column labels start) or initial column (e.g., blank column "A" in most worksheets),
- Alter existing row or column labels in worksheets, or
- Change the order of worksheets.

Credit unions should follow several formatting conventions when populating the template:

- Report data in the units defined in the template directly (instead of using Excel formatting to display the data in the requested units),
- Report fields with dollar denominated units (e.g., Thousands of Dollars) generally as positive numbers. This includes liabilities and expenses. Negative numbers should be reserved for cases where the sign is typically indeterminant, such as net numbers or fields measuring gain or loss.

Credit unions can provide additional data on more granular portfolios in the Loan Credit Details worksheet if they choose to do so. However, these should be added at the bottom of the worksheet and the added rows should use the same credit metric row labels as the other portfolios in the template. Credit unions

providing credit details for more granular portfolios, should also still provide the data for the aggregate portfolios included in the template.