

GOLDMAN SACHS GROUP, INC., SHEARA FREDMAN

Proposal and Comment Information

Title: Modifications to the Capital Plan Rule and Stress Capital Buffer Requirement, R-1866

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Subject

Goldman Sachs SCB Averaging NPR Comment Letter - Docket No. R-1866; RIN 7100-AG92

Submitter Information

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Organization Type: Company

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To: Ann Misback, Secretary, Board of Governors of the Federal Reserve System
On behalf of: Sheara Fredman, Goldman Sachs Group, Inc., Chief Accounting Officer
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Via Federal eRulemaking Portal

June 23, 2025

Ann E. Misback
Secretary
Board of Governors of the Federal Reserve System
20th Street & Constitution Avenue, N.W.
Washington, D.C. 20551
Docket No. R-1866; RIN 7100-AG92

Re: Modifications to the Capital Plan Rule and Stress Capital Buffer Requirement (Federal Reserve Docket No. R-1866, RIN 7100-AG92)

Ladies and Gentlemen:

The Goldman Sachs Group, Inc. (“Goldman Sachs” or “we”) appreciates the opportunity to comment on the notice of proposed rulemaking (“NPR”)¹ issued by the Board of Governors of the Federal Reserve System (the “Federal Reserve”) to amend the Stress Capital Buffer (“SCB”) and related aspects of capital planning. In addition to revisions to the SCB, the NPR solicits feedback on the dividend add-on and other changes to Supervisory stress testing that would improve the effectiveness and efficiency of the Capital Plan Rule. We broadly support the objectives of stress testing, which, when designed and implemented correctly, promote the safety and soundness of bank holding companies (“BHCs”) and the stability of the broader financial system. We appreciate aspects of the NPR intended to reduce volatility in capital requirements and enhance stability of capital planning, thereby increasing public confidence in stress testing. The NPR is an initial step, and we look forward to further proposals on transparency, models and broader, more structural elements within the current framework.

We are concerned that an effective date in 2025 (or January 1, 2026, if the NPR is finalized as proposed) would undermine the primary objective of the NPR. As reasoned in the letter dated May 16, 2025, jointly submitted by the Financial Services Forum (“FSF”), American Bankers Association (“ABA”), Bank Policy Institute (“BPI”) and Securities Industry and Financial Markets Association (“SIFMA”), rather than increase the stability of capital requirements and associated capital planning, the NPR introduces significant uncertainty for the CCAR 2025 capital planning cycle.² **We strongly support this joint letter and its recommendation to allow BHCs to apply current rules to the 2025 CCAR cycle and resulting SCBs, as well as the letters these industry groups have submitted in response to the NPR.**

¹ Federal Reserve, *Modifications to the Capital Plan Rule and Stress Capital Buffer Requirement*, 90 Fed. Reg. 16843 (Apr. 22, 2025).

² See Letter from the FSF, ABA, BPI and SIFMA to Ann Misback, Secretary of the Board of Governors of the Federal Reserve (May 16, 2025).

Each June, following the Federal Reserve's release of Dodd-Frank Act Stress Testing ("DFAST") results, large BHCs typically disclose anticipated SCBs and provide information on dividends and related capital actions to investors. The comment period for the NPR ends on June 23, 2025, shortly before the expected release of DFAST results and related disclosures of SCBs and capital actions. As the NPR would remain pending at that time, BHCs and investors would be uncertain as to what minimum capital requirements are and on which date they become effective, limiting BHCs' ability to capital plan and investors' ability to value banking organizations. For these reasons, a final rule implementing the NPR should not be mandatory before the 2026 CCAR cycle.

The NPR is designed to address year-over-year volatility in SCB results, which is encouraging given our SCB has fluctuated significantly since 2020. For example, CCAR 2023 yielded an 80-basis point decrease while CCAR 2024 yielded a 70-basis point increase, changing our capital requirements by billions of dollars each cycle. These increases are uncorrelated to our business model, which has become less risky through divestitures of on-balance-sheet private equity and growth in durable revenues. The volatility of the SCB requires us to hold a significant amount of additional capital on top of regulatory requirements, which hinders our ability to deploy capital to our clients and invest in the growth of the economy. It also distorts the cost of capital, creating confusion among investors and other market participants, while further diminishing public confidence in stress testing.

Reducing volatility in the SCB is a positive step toward a more coherent capital framework. However, year-over-year SCB volatility results from underlying conceptual shortcomings in Supervisory stress testing, particularly the design and modeling of the Global Market Shock ("GMS") and Large Counterparty Default ("LCD"), as well as limitations of Supervisory Pre-Provision Net Revenue ("PPNR") models (see appendix for more details). An SCB averaging methodology would not address these underlying shortcomings, which are particularly acute for BHCs engaged in significant capital markets activities. For example, Supervisory models fail to reflect that trading revenue increases with market volatility and certain noninterest expenses, such as employee compensation and brokerage fees, are variable and tend to reduce in line with revenues. More generally, the calibration of GMS shocks and associated correlations are untethered from empirical observations and undermine the "plausibility" standard in the Federal Reserve's Policy Statement on the Scenario Design Framework for Stress Testing.^{3,4}

We strongly believe that the NPR would be more effective at reducing volatility if it included asymmetric averaging, whereby only year-over-year increases in the capital depletion component of the SCB would be averaged, while decreases would be recognized in the current period without averaging. This outcome is still adequately conservative as a BHC that has just been through CCAR and whose capital plan has been accepted by the Federal Reserve should

³ SIFMA, *Global Market Shock and Large Counterparty Default Study* (Sept, 3, 2019), available at <https://www.sifma.org/wp-content/uploads/2019/09/SIFMA-GMS-LCD-Study-FINAL.pdf> ("SIFMA Study").

⁴ The Amendments to Policy Statement on the Scenario Design Framework for Stress Testing, available at <https://www.federalregister.gov/documents/2019/02/28/2019-03504/amendments-to-policy-statement-on-the-scenario-design-framework-for-stress-testing> (Federal Register).

be deemed as able to withstand a severely adverse shock and continue to function as a financial intermediary. Symmetric averaging is, therefore, an unnecessary feature of the NPR.

Furthermore, the Dividend Add-on component of the SCB requires BHCs to capitalize for outflows that are unlikely to materialize in a serious downturn. Historically, BHCs have reduced or curtailed capital distributions in stress. In all scenarios, BHCs are bound by the Capital Conservation Buffer (“CCB”), which restricts capital distributions if breached.⁵ It is therefore overly conservative and duplicative to increase capital requirements for the risk that BHCs will continue to make capital distributions, if breaching capital requirements would automatically limit those distributions.

We also have significant concerns with the overall lack of transparency with respect to models used in Supervisory stress testing and associated scenarios. We believe that the Supervisory models and Severely Adverse Scenario, including the GMS and LCD components, should be published for notice and comment. Relatedly, there should be enhanced transparency regarding the parameters within the scenario design framework, which should also be established through notice and comment.

Accordingly, our recommendations with respect to the NPR are as follows:

- **Recommendation 1:** To avoid significant uncertainty in near-term capital requirements and associated capital planning, changes to the SCB requirement should not be mandatory until the 2026 CCAR cycle, and the Federal Reserve should announce this timeline prior to the release of 2025 DFAST results
- **Recommendation 2:** Decreases in the capital depletion component of the SCB resulting from a given year’s Supervisory stress test should become effective on January 1 of the following year and should be subject to asymmetric averaging, rather than symmetric averaging, which is similar to the methodology of the Global Systemically Important Bank (“GSIB”) Surcharge and Countercyclical Capital Buffer (“CCyB”) frameworks
- **Recommendation 3:** The SCB framework should be rationalized by removing the Dividend Add-on as banks will curtail dividends in stress consistent with the existing CCB requirement
- **Recommendation 4:** Structural shortcomings in the Supervisory stress testing framework should be addressed by the Federal Reserve adhering to a set of principles; these principles, which include increasing transparency, should be applied to the GMS and LCD components, PPNR and loan loss modeling as well as certain design features of Supervisory stress testing, such as disclosures

It is critical to assess revisions to the SCB requirement in the context of the overall capital framework, including potential revisions related to the Basel III Endgame (“B3E”). Notably, the interplay between (i) the GMS and (ii) B3E, in particular market risk under the Fundamental Review of the Trading Book (“FRTB”), Credit Valuation Adjustment (“CVA”) and Operational Risk capital requirements, must be examined given that each framework is

⁵ 12 C.F.R. § 217.10(a)(1)(i).

designed to assess the ability of a BHC to withstand losses in extreme stress and, in the case of FRTB, uses similar shocks based on historical loss data.⁶ Overall regulatory capital requirements must be calibrated appropriately to avoid increases in the costs of lending and market intermediation and corresponding effects on liquidity, market functioning and the overall economy.

Recommendation 1: To avoid significant uncertainty in near-term capital requirements and associated capital planning, changes to the SCB requirement should not be mandatory until the 2026 stress testing cycle, and the Federal Reserve should announce this timeline prior to the release of 2025 DFAST results.

The NPR would modify the SCB calculation following the 2025 Supervisory stress test, such that a BHC's SCB requirement would be based on the symmetric average of its maximum capital depletion from the 2024 and 2025 Supervisory stress tests.⁷ Implementing these changes in the middle of the 2025 stress testing cycle would result in significant uncertainty in capital requirements, in contrast to the NPR's stated objective of reducing volatility and uncertainty.

Currently, a BHC submits its capital plan and company-run stress test results to the Federal Reserve by April 5 of each calendar year, which are subject to a comprehensive governance structure and are designed based on the current rule set.⁸ The Federal Reserve provides notice to the BHC of its preliminary SCB requirement – for 2025, this date falls on June 27 – and publicly discloses a summary of the DFAST results.⁹ Following the BHC's submission of any changes to its final planned capital distributions, the Federal Reserve provides the final SCB requirement by August 31, with an effective date of October 1.¹⁰ The BHC also must publicly disclose a summary of its company-run stress tests within 15 calendar days after the Federal Reserve publicly discloses the results of its Supervisory stress test.¹¹ The typical convention is also for the BHC to publicly disclose its SCB requirement and information regarding anticipated dividends, share repurchases and related capital actions two business days after receipt of its preliminary SCB requirement and the Federal Reserve's release of DFAST results.

Accordingly, under the current framework, GS will receive notice of its preliminary SCB requirement on June 27, five days after the end of the NPR's comment period. Leaving aside the current uncertainty regarding the effective date of our updated SCB requirement (either October 1, 2025, or January 1, 2026), it is unclear how a final rule would affect our SCB requirement, e.g., whether it would be based on a symmetric average. Although capital planning is a continuous exercise, a planning cycle should be run under a single set of rules, without those rules changing prior to the execution of the approved capital actions. Changing the rules mid-cycle would render our capital plan obsolete. For these reasons, the proposed changes to the SCB and CCAR framework should not be mandatory until the CCAR 2026 cycle.

⁶ Goldman Sachs's Basel III Endgame NPR Comment Letter (Jan. 16, 2024), pp. 9, 30.

⁷ See NPR, p. 16847.

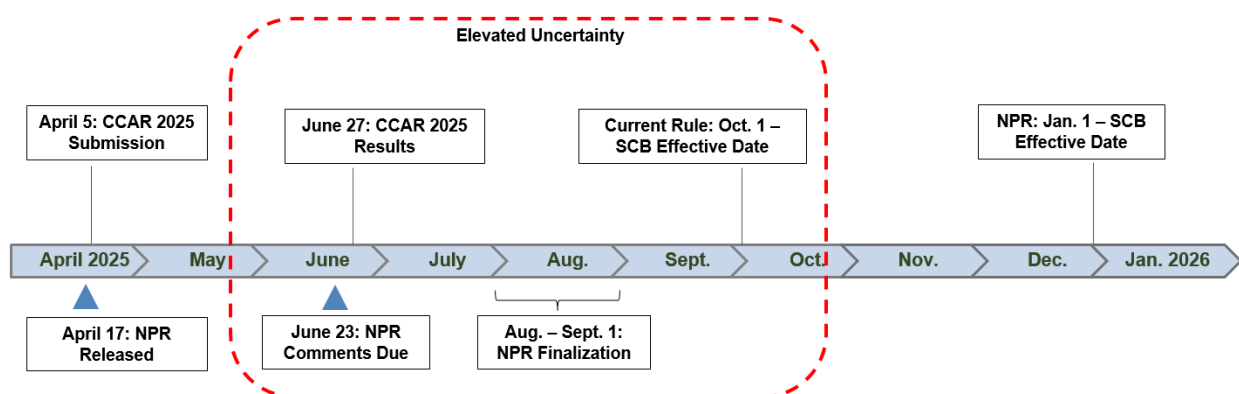
⁸ 12 C.F.R. § 225.8(e)(1)(ii), § 252.57(a).

⁹ 12 C.F.R. § 225.8(h)(1), § 252.46(b)(1).

¹⁰ 12 C.F.R. § 225.8(h)(4).

¹¹ 12 C.F.R. § 252.58(a)(1).

CCAR 2025 / NPR Timeline (Figure 1)



Recommendation 2: Decreases in the capital depletion component of the SCB resulting from a given year’s Supervisory stress test should become effective on January 1 of the following year and should be subject to asymmetric averaging, rather than symmetric averaging, which is similar to the methodology of the GSIB Surcharge and CCyB frameworks

The NPR would modify the calculation of the SCB by averaging the maximum Common Equity Tier 1 (“CET1”) capital depletion from the current year and prior year’s Supervisory stress tests. Under the NPR, averaging would apply for both increases and decreases in order to reduce volatility and improve the predictability of SCB requirements.¹² We broadly support the Federal Reserve’s efforts to reduce annual volatility, however, a decrease in SCB requirements should not be subject to averaging, which is consistent with the CCyB and GSIB Surcharge frameworks, both of which allow for quicker recognition of decreases to requirements.¹³

It is appropriate to smooth the volatility of increases in the SCB because of the costs and market effects associated with raising capital quickly or taking other abrupt actions to satisfy increases in capital requirements. Capital raised in response to increases in regulatory capital requirements – which in the case of the SCB is based on hypothetical stress rather than current needs – is expensive and can lead to a crisis of confidence among market participants. Sudden reductions in lending or market intermediation by banking organizations in response to increased capital requirements may reduce the provision of credit to the economy or liquidity to markets and, in extreme cases, could contribute to systemic stress.

These considerations do not apply, however, in the context of capital requirement decreases, which enable banking organizations to “allocate more capital to lending and other financial intermediation activities, fostering economic growth.”¹⁴ Recognizing SCB decreases immediately also provides appropriate incentives for BHCs to manage their balance sheets and activities that are subject to disproportionately high stress losses. Symmetric averaging, on the

¹² See NPR, p. 16,847.

¹³ 12 C.F.R. § 217.11(b)(2)(v), § 217.403(d).

¹⁴ See NPR, p. 16846.

other hand, would force BHCs to capitalize positions for up to three years after a potential sale, disincentivizing actions to reduce the stress loss intensity of balance sheets. As the Federal Reserve has recognized, BHCs currently maintain significant levels of regulatory capital, specifically with “regulatory capital ratios approaching or exceeding historical highs”, and most reporting “capital levels well above regulatory requirements.”¹⁵

Recommendation 3: The SCB framework should be rationalized by removing the Dividend Add-on as banks will curtail dividends consistent with the CCB framework.

The current SCB includes a Dividend Add-on component that effectively requires a BHC to hold capital for one year of dividends based on an implicit assumption that a BHC will continue planned common stock dividends for one year irrespective of the degree of stress it experiences. Questions 21 and 22 of the NPR request comment on removing the Dividend Add-on and on all aspects of the Dividend Add-on.¹⁶ The capital framework has a longstanding mechanism, the CCB, to ensure that banks do not continue to distribute capital in stress. There is no basis, therefore, to also capitalize for one year of dividends when this safety valve already exists. We therefore strongly believe that the Dividend Add-on should be removed considering its conceptual shortcomings.

Recommendation 4: Structural shortcomings in the Supervisory stress testing framework should be addressed by the Federal Reserve adhering to a set of principles; these principles, which include increasing transparency, should be applied to the GMS and LCD components, PPNR and loan loss modeling as well as certain design features of Supervisory stress testing such as disclosures.

While we broadly support efforts to reduce SCB volatility, averaging does not address the conceptual weaknesses in Supervisory stress testing. Shortcomings in Supervisory assumptions and models result in unrealistic losses that are volatile, unintuitive and opaque, impeding a BHC’s ability to manage capital, invest in its business and serve clients. Practical changes to the CCAR framework will increase credibility, permit more stable capital planning and business selection and improve transparency, which in turn will support sustained liquidity for markets and credit availability to the broader economy.

Accordingly, we address within the appendix to this letter structural aspects of the Supervisory stress test and capital planning framework, which should be enhanced to reduce volatility in year-over-year capital requirements. These enhancements touch on the GMS and LCD, PPNR and loan loss modelling as well as design features of Supervisory stress testing, such as disclosures. These enhancements follow several broad stress testing principles, which, if integrated into Supervisory stress testing, would address the underlying causes of volatility.

¹⁵ Federal Reserve, *Financial Stability Report*, pp. 6, 8 (Apr. 2025), available at <https://www.federalreserve.gov/publications/files/financial-stability-report-20250425.pdf>.

¹⁶ See NPR, Question 21 (“What would be the advantages and disadvantages of removing the dividend add-on component from the calculation of a firm’s stress capital buffer requirement?”); NPR, Question 22 (“The Board seeks comment on all aspects of the dividend add-on component of the stress capital buffer requirement. Please provide any rationale or data that may be helpful for the Board to consider.”).

A. Model stability and calibration of shocks to defined standards: Appropriate calibration of shocks across asset classes within the GMS is needed to limit volatility and improve coherence

The Federal Reserve should adopt a series of policy standards, whereby scenarios and GMS shocks are developed within a disclosed range or guardrails, informed by historical experience and correlations to provide reasonableness and stability. At a minimum, liquidity horizons associated with GMS factor shocks should align with the standard set by the Basel Committee on Banking Supervision for each asset class (e.g., 10 days for large-cap equities).¹⁷ Public notice and comment should be sought on all scenarios and components of scenarios.

Currently, there is a lack of coherence across aspects of the Supervisory stress testing, particularly with respect to the GMS. For example, it is inconsistent from an accounting, risk management and economic perspective to assume that GMS and LCD losses are incurred instantaneously without also reflecting those losses in asset values at the beginning of the nine-quarter projection horizon.¹⁸ Additionally, as referenced in prior comment letters from GS and other industry participants, the GMS incorporates shocks that have not been observed during any post-war period and correlations across asset classes that are fundamentally implausible.¹⁹ Implementing defined standards for more realistic GMS shocks would produce Supervisory results with more credibility and accuracy in setting appropriate capital requirements.

B. Incorporation of benefit of post-crisis reforms: Models should take into consideration the evolution of regulations and evolving risk management practices since 2008

Assumptions in Supervisory stress testing do not incorporate broader market reforms that have been implemented since the 2008 Global Financial Crisis. Taken individually, each discrete component of the capital framework addresses long-standing financial and non-financial risks (e.g., credit, market, operational) as well as risks that proved to be important, yet insufficiently addressed, before 2008 (e.g., CVA). Taken as a whole, however, the framework is duplicative, over-calibrated and fails to consider each component's incremental effect. For example, the CVA component of the GMS does not account for mandatory margin requirements now applied to many uncleared derivatives. Similarly, the treatment of securitizations under the GMS overlooks important regulatory reforms, such as those related to risk retention, conflicts of interest, transparency and disclosure. As a result, losses on securitized products can exceed total exposure.

In addition, there have been several market stresses since 2008 to inform how these exposures perform in stress given these credit enhancements and other market reforms. For example, the Volcker Rule has significantly limited the likelihood of large mark-to-market losses in the trading book. Such losses have not materialized in recent stress periods (e.g., COVID, the regional banking crises and the recent tariff shock); still, the GMS remains one of the most

¹⁷ Basel Committee on Banking Supervision. Minimum capital requirements for market risk. (January 2019). Available at <https://www.bis.org/bcbs/publ/d352.pdf>.

¹⁸ Goldman Sachs's Stress Capital Buffer NPR Comment Letter (June 25, 2018), p. 9.

¹⁹ Goldman Sachs's Capital Planning NPR Comment Letter (Nov. 20, 2020), p. 7; SIFMA's Capital Planning NPR Comment Letter (Nov. 20, 2020), p. 7; The Clearing House, SIFMA, Financial Services Roundtable Stress Capital Buffer NPR Comment Letter (June 25, 2018), pp. C-3 – C-4 (the "TCH-SIFMA-FSR Comment Letter").

capital-intensive elements of Supervisory stress results. In fact, a recent Federal Reserve paper acknowledged that the Volcker Rule reduced the dollar risk exposure associated with the aggregate banking sector's trading book to an extent commensurate with aggregate GMS losses.²⁰

C. Tailoring and sensitivity to business model / risk profile: Current models should be more granular, reflecting a greater diversity of business models and producing more accurate results, particularly for capital markets-oriented banks

GSIBs, particularly capital markets-oriented and custodial BHCs, derive most of their income through noninterest income activity (see Figure 2). Supervisory models, however, particularly with respect to PPNR, are not sufficiently tailored to these businesses. Rather, Supervisory models are better suited for businesses and risks associated with retail and commercial banking. For example, there are 15 models associated with net interest income,²¹ but only six models for noninterest income, resulting in PPNR outcomes that fail to realistically capture, among others, revenues associated with trading activity. Fewer models result in more simplifying assumptions for businesses that are just as complex and varied as those associated with interest income. Historical precedent shows that trading revenues increase with volatility due to higher volume and bid-ask spreads, a relationship recognized by Federal Reserve economists in another 2025 paper on the effect of the Volcker Rule on trading revenue during COVID.²² However, the PPNR model for trading revenue declines in periods of volatility.

Breakdown of Income Sources for GSIBs / Supervisory Model Coverage (Figure 2)

	GSIBs	Capital Markets and Custodial GSIBs ²³	Supervisory Model Coverage
% of Total - Interest Income	45%	19%	70%
% of Total - Noninterest Income	55%	81%	30%

D. Transparency for capital planning: Capital planning requires an understanding of capital requirements and the risks that give rise to them

It is nearly impossible for BHCs to understand Supervisory stress results (both public and BHC specific) as the generation of Supervisory scenarios and use of models are insufficiently transparent. For example, results are disclosed on a nine-quarter basis, although what drives a BHC's capital requirements are results from the starting point of the exercise to the lowest point of CET1 capital over the nine-quarter projection horizon, which has almost no

²⁰ Antonio Falato, Diana Iercosan, Filip Zikes. Banks as regulated traders. (April 2025). Available at: <https://doi.org/10.1016/j.jfineco.2025.104080>.

²¹ Net interest income is defined as interest income – interest expense per the FR Y-9C. Noninterest income does not include noninterest expense.

²² Zach Modig, Hulusi Inanoglu, and David Lynch. Impact of the Volcker Rule on the Trading Revenue of Largest U.S. Trading Firms During the COVID-19 Crisis Period. Federal Reserve Board, Washington, D.C. ISSN 2767-3898, available at <https://www.federalreserve.gov/econres/feds/files/2025005pap.pdf>.

²³ Includes GS, MS, BK and STT.

disclosure. It is important not only for BHCs to understand their results, but also for market participants and investors so that they can adequately assess and value BHCs.

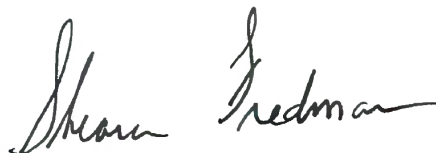
BHCs and the Federal Reserve can have similar stress results from similar scenarios on a nine-quarter basis, but vastly different implied SCB results because of how losses, revenues and expenses are modeled to accrue over the nine quarters. As a result, there are many examples of banks calculating nine-quarter results that are similar to Supervisory results, but SCBs that are vastly different in both magnitude and year-over-year direction. U.S. GSIBs projected aggregate nine-quarter pre-tax losses of \$165bn in CCAR 2024 based on our calculations, while the Federal Reserve projected \$181bn of losses, 10 percent higher.

The impact of modeling differences is even more pronounced at the trough period that ultimately determines capital requirements. CCAR 2024 SCBs would have been 110bps lower on average if the requirement was based on nine-quarter Supervisory loss projections rather than start-to-trough loss projections, equivalent to \$66bn of capital. For this reason, the Federal Reserve should provide detailed quarterly results over the nine-quarter projection horizon, as specified further in the appendix to this letter, so that BHCs can better understand what is driving these differences.

Conclusion

We appreciate the efforts of the Federal Reserve to reduce the volatility of year-over-year capital requirements as a result of the SCB calculation and the broad requests for comment regarding Supervisory stress testing. Our recommendations would significantly enhance the overall coherence and plausibility of these rules, which would enhance the stability of capital requirements and improve our ability to intermediate in critical financial markets.

Sincerely,

A handwritten signature in black ink, appearing to read "Sheara Fredman". The signature is fluid and cursive, with the first name "Sheara" and last name "Fredman" clearly distinguishable.

Sheara Fredman

Chief Accounting Officer

Appendix: Structural Recommendations for Addressing Underlying Volatility in Supervisory Stress Testing

A. The overall coherence and functioning of the GMS scenario component would be enhanced by the following recommendations

- 1. The calibration of GMS shocks and correlations should be modified for consistency with post-war historical experience*

Several aspects of the GMS shock calibration should be improved for overall coherence and plausibility. The GMS currently assumes an instantaneous shock for which losses are recognized in the first quarter of the scenario without appropriate recognition of actions that BHCs would realistically take to mitigate these risks, including hedging and closing out positions. This assumption is particularly unsupported in the context of liquid positions, which, even in times of stress, can be closed out and effectively hedged.²⁴ This assumption should be updated to reflect a shock that occurs over a longer period (e.g., four quarters). At a minimum, the Federal Reserve should provide a justification for the assumption that GMS losses all accrue in the first quarter.

The calibration of GMS shocks is unduly severe and produces implausible losses. As reflected in a 2019 SIFMA study on the GMS and LCD, shocks produced in the GMS exceed losses observed historically during the post-war period.²⁵ Additionally, the calibration of asset class and instrument correlation assumptions in the GMS are not empirically supported.

The GMS broadly assumes that many instruments in different asset classes would be subject to adverse shocks simultaneously. The SIFMA study demonstrates, however, that assuming extreme, simultaneous moves across different instruments is not justified historically.²⁶ The excessive calibration of these shocks and correlations undermines the general plausibility of Supervisory stress results. Accordingly, GMS shock calibrations and associated correlations should be modified such that stress losses are consistent with post-war periods of severe market stress. More specifically, liquidity horizons associated with GMS factor shocks should not exceed 90 days and align with FRTB.

²⁴ Goldman Sachs's Stress Capital Buffer NPR Comment Letter (June 25, 2018), pp. 8-9; Goldman Sachs's Capital Planning NPR Comment Letter (Nov. 20, 2020), p. 4; SIFMA's Capital Planning NPR Comment Letter (Nov. 20, 2020), pp. 7-8; TCH-SIFMA-FSR Comment Letter, pp. 39-40; SIFMA Study, p. 32.

²⁵ SIFMA Study, pp. 31-32.

²⁶ *Ibid*, pp. 8-10.

2. Derivatives subject to daily margining should not have CVA losses in the GMS scenario

The GMS scenario currently incorporates CVA losses on derivatives that are subject to daily margining requirements, which overstates the risk of these transactions and reduces the coherence of the GMS. This is inconsistent with post-crisis reforms that require mandatory margining and clearing for certain derivative exposures. Accordingly, derivatives that are subject to daily margining should not be included within the scope of CVA losses in the GMS given that CVA risk does not apply to these transactions.

3. Losses on securitizations in the GMS scenario should not exceed actual exposure

Shocks applied to securitizations can result in losses that exceed a BHC's actual exposures, which contributes to the incoherence and implausibility of the current GMS framework.²⁷ These results fail to recognize and are inconsistent with post-crisis reforms applied to securitizations such as improved underwriting, risk retention and changes to product mix. Accordingly, with respect to securitizations, the GMS should be updated to reflect that a BHC's maximum loss will not exceed its actual exposure.

B. The LCD should be enhanced consistent with post-financial crisis reforms

1. The LCD should be based on an average of top counterparties

Under the Federal Reserve's current LCD framework, a firm identifies the counterparty for which a default would generate the largest net stressed losses across derivatives and securities financing transactions and incorporates the unexpected default of that counterparty in the Supervisory Severely Adverse Scenario.

Instead of determining losses and related capital effects associated with the unexpected default of a single counterparty, the framework should average net stressed losses in the event of a default of the BHC's top counterparties in order to reduce the overall volatility of SCB requirements.

2. BHC LGDs should be applied in the LCD

The Federal Reserve assigns a 90 percent loss-given-default ("LGD") assumption with respect to all counterparties within the LCD framework. In addition to being unduly simplistic and not reflective of the underlying transactions and counterparties, this assumption also is inconsistent with the objective to reflect the idiosyncratic risks faced by individual BHCs. Accordingly, rather than assuming a standard LGD for all counterparties, the LCD should assign LGDs based on a BHC's own LGD methodologies, which would more appropriately tailor the LCD scenario to the individual risks faced by the BHC.

²⁷ Goldman Sachs's Stress Capital Buffer NPR Comment Letter (June 25, 2018), p. 8.

3. *Sovereigns should not be subject to the LCD*

A BHC's largest counterparty may include sovereign counterparties, including sovereign entities assigned a zero percent risk weight under the regulatory capital rules. It is not appropriate to include these counterparties within the LCD scenario and subject them to a 90 percent LGD, given the implicit assumptions in the regulatory capital rules regarding the minimal counterparty credit risk for these counterparties. Accordingly, all sovereign entities that are assigned a zero percent risk weight should not be included within the scope of counterparties in the LCD scenario.

C. **PPNR modeling should be enhanced to harmonize with risk management and capital planning practices**

1. *The trading revenue assumptions of PPNR modeling should be updated based on historical experience*

The current PPNR modeling methodology assumes that trading revenue declines as market volatility increases.²⁸ This assumption is unsupported by historical experience of trading revenue during periods of market stress. As an empirical matter, trading revenue generally increases during periods of market volatility as a result of increases in trading volume and wider bid-ask spreads.²⁹ In 2020, the Federal Reserve stated that it would direct its "staff to explore potential improvements with regard to the granularity of the approach to estimating trading revenues for firms subject to the GMS, estimating expenses based on revenues instead of macroeconomic variables..."³⁰ however, the Federal Reserve does not appear to have addressed this issue.

This discrepancy is in part driven by the Federal Reserve's use of FR Y-9C data to model trading revenues, which includes both mark-to-market losses and activity-based revenues, the former of which are already captured in the GMS and therefore double counted. Another driver is the stress testing framework's design, which is geared toward the commercial banking business model. As noted in the main body of this letter, the Federal Reserve has significantly underinvested in the models for noninterest income. Figure 3 below shows three recent stress periods in which trading revenue of BHCs subject to the GMS markedly increased:

1. The COVID pandemic, trading revenue grew over 300 percent between 1Q20 and 2Q20
2. Initial periods of the regional banking crisis, trading revenue grew by nearly 70 percent
3. At the outset of the tariff shock, BHCs generated 60 percent more trading revenue quarter over quarter due to short-term uncertainty

These periods of intense volatility, all of which occur after the full suite of post-2008 Global Financial Crisis reforms were in place, benefited trading revenue; however, current

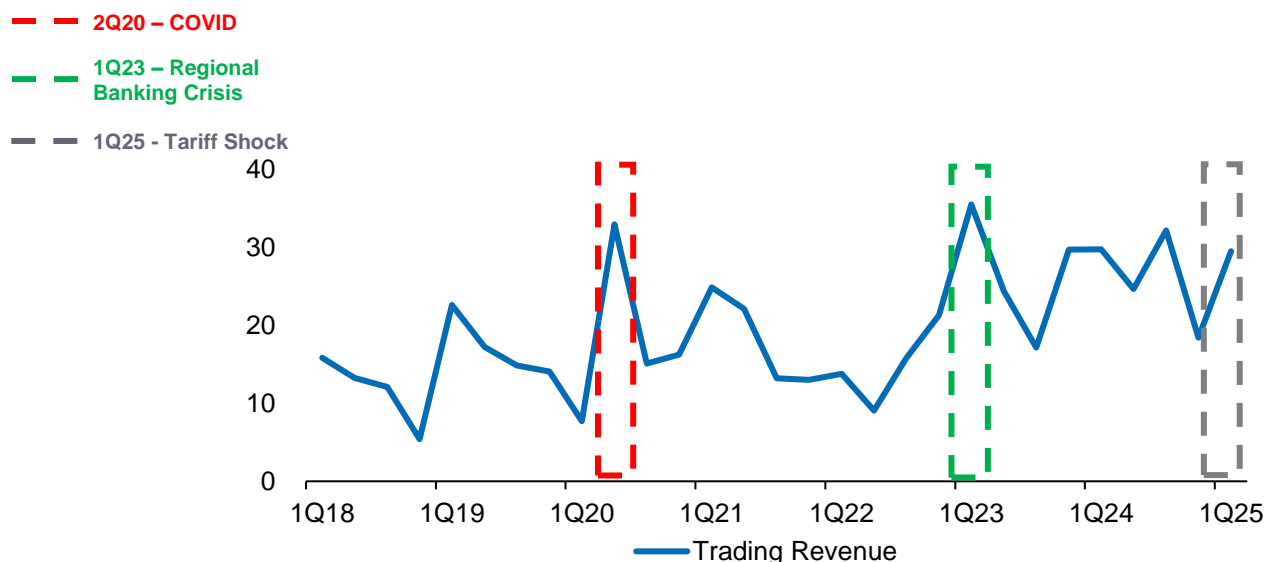
²⁸ Goldman Sachs's Capital Planning NPR Comment Letter (Nov. 20, 2020), p. 5.

²⁹ SIFMA's Capital Planning NPR Comment Letter (Nov. 20, 2020), pp. 4-5.

³⁰ See Federal Reserve response to GS 2020 SCB reconsideration letter, (September 4, 2020). <https://www.federalreserve.gov/supervisionreg/files/goldman-sachs-group-inc-20200904.pdf>.

Supervisory PPNR models fail to reflect historical experience and assume trading revenues decline in stress. Accordingly, trading revenue assumptions for purposes of determining PPNR under the Supervisory stress tests should reflect the increased revenue attendant to periods of market volatility. To reflect this empirical relationship, trading revenue should exclude inventory losses to avoid a double count with losses captured by the GMS. To do this, the Federal Reserve should use data submitted as required by the Volcker Rule – available since 2015 – rather than FR Y-9C data.

Trading Revenue for GMS Banks (\$bn) (Figure 3)

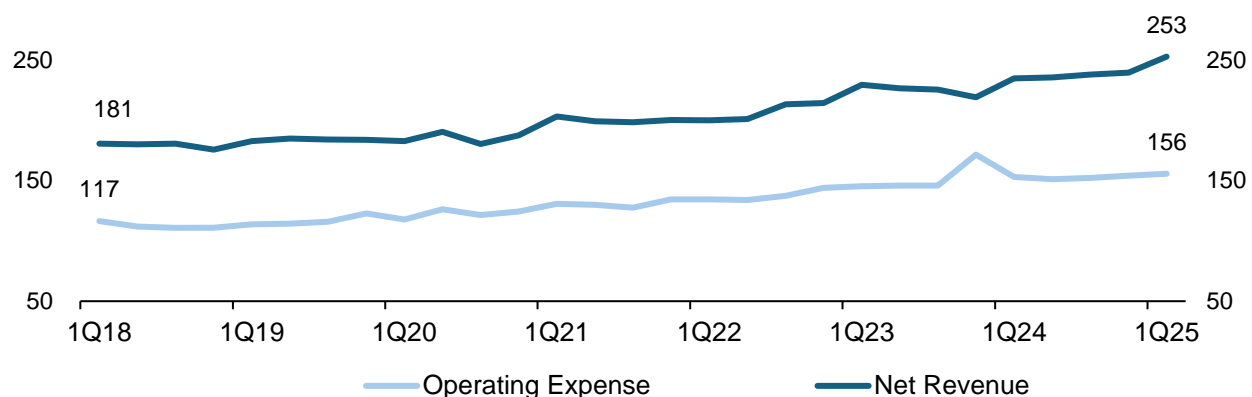


2. *Assumptions in PPNR regarding expenses should be measured as a ratio to net revenues*

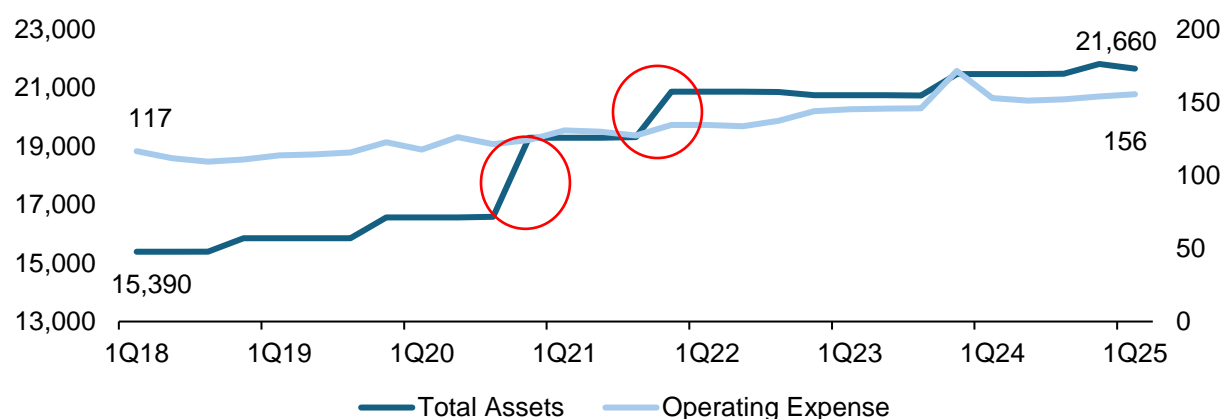
Current PPNR models normalize noninterest expense to total assets, which assumes that past expense-to-asset ratios are an accurate predictor of future expenses. In contrast, as a business and risk management matter, BHCs broadly model expenses as a ratio to net revenues.³¹ Since 2018, while net revenues have tracked consistently with operating expenses over time (see Figure 4), total assets have grown during certain periods (e.g., COVID) without a commensurate increase in operating expenses (see Figure 5). Revising the assumptions in PPNR to model expenses as a ratio to net revenues rather than a BHC's balance sheet would improve the coherence and predictability of Supervisory results. Furthermore, by modeling certain variable expenses based on a BHC's balance sheet, Supervisory results fail to differentiate business models or account for variable expenses (e.g., incentive compensation expenses), which are reduced in stress.

³¹ Net revenues are calculated as net interest income plus noninterest income.

Net Revenues versus Operating Expenses for CCAR Banks (\$bn) (Figure 4)



Total Assets versus Operating Expenses for CCAR Banks (\$bn) (Figure 5)



3. Operational risk loss modeling should be made more risk sensitive

The current PPNR modeling framework allocates industry operational risk losses to a BHC based on the size of the BHC's balance sheet, an overly simplistic assumption that does not reflect historical experience. The allocation of industry losses in PPNR should be modified to be more risk sensitive and modeled based on BHC earnings and risk profile, not assets.

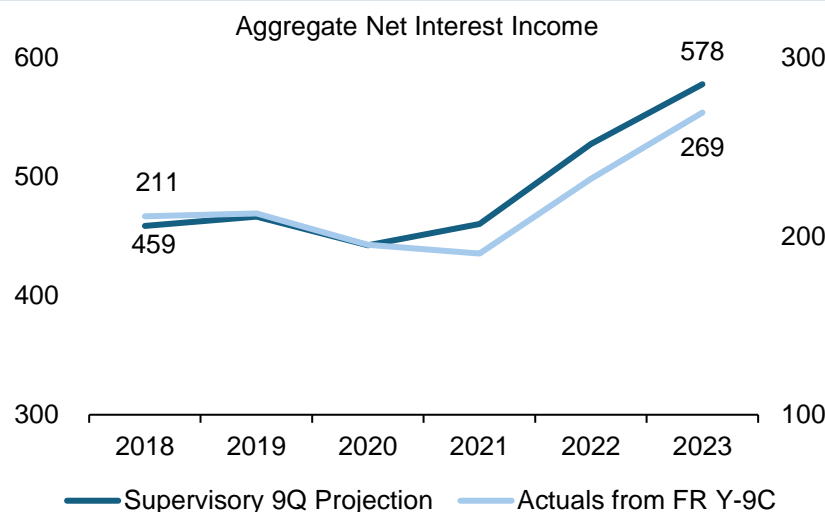
Furthermore, operational risk losses are over-calibrated. Empirical data should inform when operational losses are recognized and suggests that losses generally are recognized well after an initial macroeconomic stress. Finally, the Federal Reserve should ensure that the

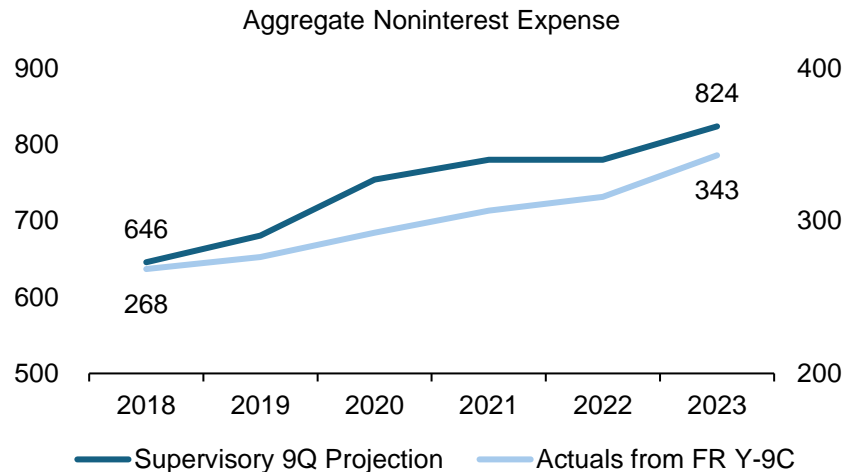
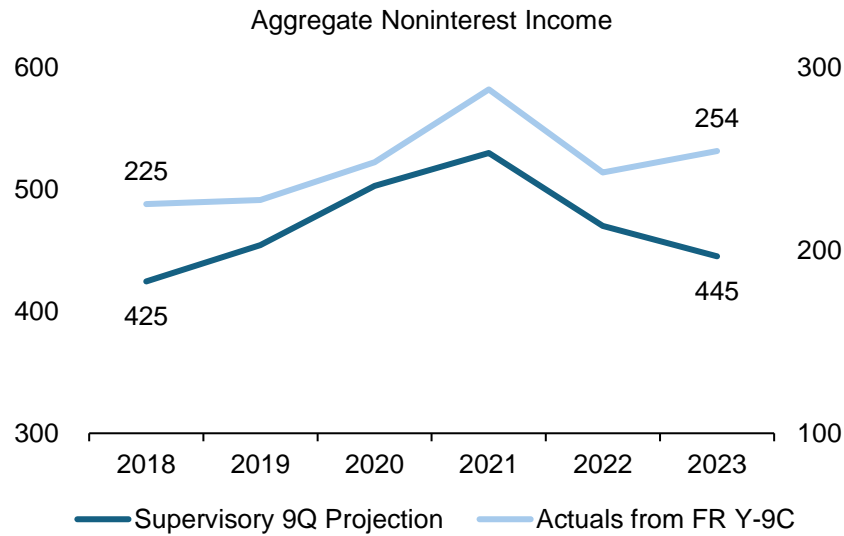
operational risk loss component of the stress test is not duplicative with operational risk under B3E.

4. *PPNR should be less sensitive to the most recent period of BHC performance to avoid volatility and pro-cyclicality*

The Federal Reserve's models for projecting PPNR employ an auto-regressive methodology that heavily weights recent performance, particularly influencing the initial quarters of the nine-quarter projection horizon. This approach results in PPNR projections exhibiting significant pro-cyclicality. BHCs demonstrating strong performance in the year preceding the annual exercise typically receive more favorable PPNR projections under the Supervisory Severely Adverse Scenario compared to BHCs with weaker prior-year results. Notably, the differences in the nine-quarter PPNR projections publicly disclosed by the Federal Reserve over the past several years can be largely explained by a BHC's performance in the preceding year. The following charts present the aggregate nine-quarter PPNR for the six non-custodian GSIBs as disclosed by the Federal Reserve for the past six CCAR cycles. It also displays the aggregate actual values for the corresponding FR Y-9C regulatory reporting metrics categorized as net interest income, noninterest income and noninterest expense.

Supervisory PPNR vs. Actuals (\$bn) (Figure 6.a, 6.b, 6.c)





This outcome fails to accurately reflect a BHC’s actual capacity to generate PPNR under stressed conditions, which should be independent of cyclical performance variations experienced in the year prior to the stress test. The methodology’s heavy reliance on recent historical performance creates a disconnect between stress test results and a financial institution’s fundamental ability to withstand adverse economic conditions, raising questions about the effectiveness of the current approach in assessing true financial resilience.

5. PPNR outcomes should use BHC models to reflect unique business structures

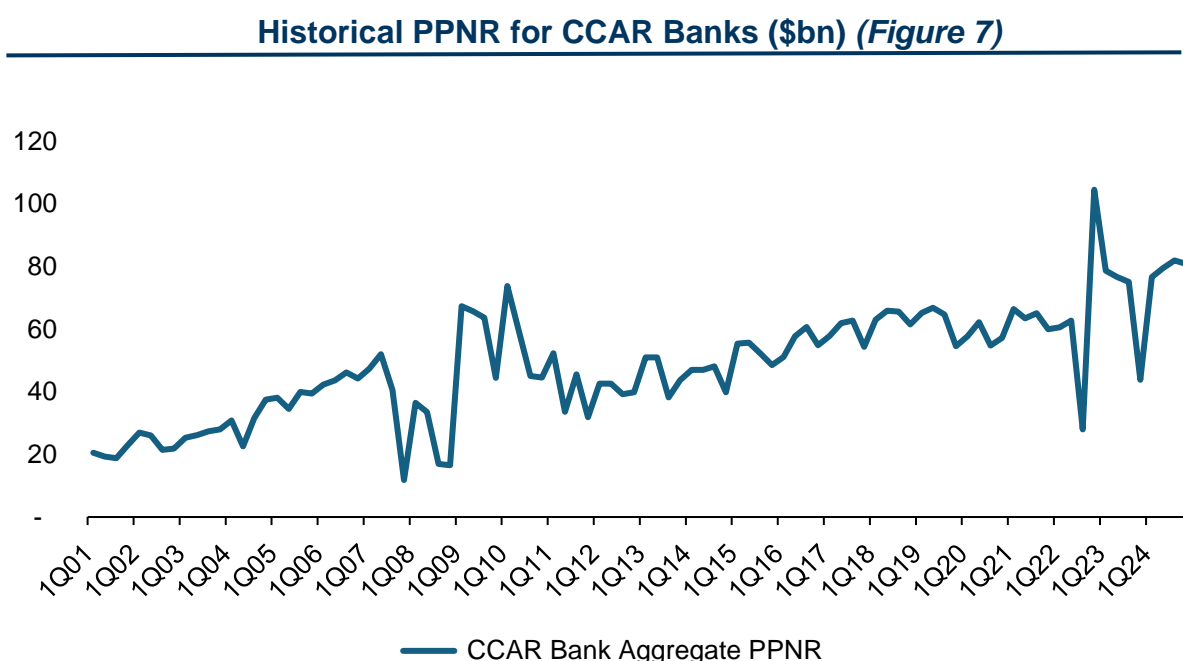
The use of Supervisory models as opposed to BHC models results in a “one size fits all” approach that does not appropriately reflect the unique business models and idiosyncratic risks faced by BHCs.³² In general, the efficacy and overall coherence of the stress testing framework

³² Goldman Sachs’s Stress Capital Buffer NPR Comment Letter (June 25, 2018), pp. 11-12.

would be significantly enhanced if BHC models were used to determine PPNR, subject to continued Federal Reserve oversight and supervision.

6. PPNR should be floored at \$0

Absent fundamental remediation of logical and statistical shortcomings described in the above recommendations, it would be most prudent to introduce guardrails to Supervisory PPNR so that outcomes remain coherent. For example, PPNR should be subject to a \$0 floor for each quarter in the planning horizon to account for the double counting of risk in Supervisory models. Since 2001, aggregate PPNR of all CCAR banks never fell below \$0.³³ Furthermore, PPNR during the 2008 Global Financial Crisis would have been even higher if large mark-to-market losses associated with sub-prime exposures, which are already captured by the GMS, are removed from the data, further evidencing that PPNR is countercyclical to loan and other types of losses during a crisis. Figure 7 shows CCAR bank aggregate PPNR without any removal of large losses.



D. The modeling of held-for-sale (“HFS”) and fair value option (“FVO”) loan losses should be improved

1. *The granularity of the loss projection methodology should be enhanced to improve risk sensitivity*

The current methodology for projecting loan losses for HFS and FVO loans in Supervisory stress testing is overly simplistic and does not appropriately reflect historical experience or significant market reforms. In particular, the loss projections with respect to

³³ Figure 7 is calculated as the sum of total interest income minus total interest expense plus total noninterest income minus total noninterest expense as reported on the FR Y-9C.

mortgages do not consider the substantial changes to underwriting practices and product mix following the 2008 Global Financial Crisis, such that projected loan losses are significantly higher than expected during periods of severe market stress. The loan loss projections undermine the overall efficacy of Supervisory stress testing and compound the capital planning challenges addressed in this letter.

Accordingly, the loan loss projection methodology for HFS and FVO loans should be updated to provide additional granularity based on the type of loan and to reflect improved underwriting standards following the 2008 Global Financial Crisis.

2. Loan loss modeling should reflect collateral arrangements

The current loan loss projection methodology used in Supervisory stress testing overestimates a BHC's exposure to collateralized loans because it inadequately reflects the loss mitigation provided by collateral arrangements. The current Supervisory approach uses generic secured versus unsecured designations that do not capture the type and degree of over-collateralization in warehouse lending facilities. These facilities are secured by a pool of assets and typically underwritten to withstand financial crises comparable to the 2008 Global Financial Crisis. The level of over-collateralization is designed to ensure that even with collateral value declines consistent with 2008, collateral will still sufficiently cover the loan amount. This type of low-risk lending should be encouraged, not penalized due to a lack of model specificity. Therefore, Supervisory loan loss modeling should be appropriately sensitive to the loan-to-value ("LTV") ratio of collateralized loans as well as the asset type of the underlying collateral.

3. Purchased protection and related arrangements should be recognized in Supervisory PPNR loan loss modeling

Consistent with the risk-based capital framework, Supervisory loan loss modeling should reflect the risk mitigating effect of purchased protection, particularly as it relates to first-loss credit protection on held-for-investment ("HFI") loan portfolios, such as significant risk transfers ("SRTs").

E. Improvements should be made to the design and mechanics of the stress testing framework

1. The cadence of CCAR disclosures should be aligned with BHCs' capital planning by providing the SCB prior to capital plan submissions

BHCs are required to submit capital plans each year to the Federal Reserve in early April, three months before receiving their preliminary SCBs and almost five months before confirmation of final SCBs. This cadence requires BHCs to seek approval from their boards of directors for capital actions for the coming year without knowledge of the capital requirements that will govern. This results in capital plans that are mere guesses. Accordingly, the Federal Reserve should amend the cadence of the capital planning cycle such that BHCs know their final capital requirements, including SCBs, for the coming year before seeking approval from their boards and submitting a capital plan.