

This document includes visuals of the Federal Reserve's 2018 Comprehensive Capital Analysis and Review ("CCAR") results as well as the supervisory Dodd-Frank Act stress test ("DFAST") results for the 35 firms subject to the 2018 CCAR assessment, which include 23 U.S. bank holding companies with \$100 billion or more in total consolidated assets that are not controlled by a foreign banking organization ("Large BHCs") and 12 U.S. intermediate holding companies ("IHCs") of foreign banking organizations (together, the "CCAR Firms"). The statutory thresholds for DFAST and CCAR were amended by the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 (the "EGRRCPA"), increasing the total consolidated asset threshold to \$100 billion beginning May 2018 and to \$250 billion beginning November 2019. The Federal Reserve is expected to propose new regulations addressing the applicability of DFAST and CCAR to firms with between \$100 billion and \$250 billion in total consolidated assets.

Background on DFAST: Pursuant to its DFAST regulations, the Federal Reserve conducts annual supervisory stress tests to assess the potential impact of various hypothetical economic scenarios on the consolidated earnings, losses and regulatory capital of each Large BHC over a nine-quarter planning horizon. As part of the supervisory DFAST, the Federal Reserve projects each CCAR Firm's balance sheet, net income, and resulting post-stress capital levels, and regulatory capital ratios under three scenarios (baseline, adverse and severely adverse) using data reported to the Federal Reserve by each of the CCAR Firms as of December 31 of the previous year. As the EGRRCPA requires the removal of the adverse scenario from DFAST, we expect the Federal Reserve will make a similar conforming change to CCAR.

The DFAST requirements, as amended by the EGRRCPA, also require CCAR Firms, as well as other U.S. banking organizations with \$100 billion or more in total consolidated assets, to conduct company-run DFASTs.

Background on CCAR: CCAR is an annual capital planning exercise conducted by the Federal Reserve that, like DFAST, involves hypothetical stressed economic scenarios over a nine-quarter planning horizon. Under CCAR, the Federal Reserve assesses for each CCAR Firm (i) whether it has sufficient capital to continue operations over a nine-quarter planning horizon, taking into account certain hypothetical economic and financial stress conditions and (ii) whether it has implemented robust, forward-looking capital planning processes that account for the company's risks and are supported by the CCAR Firm's risk measurement and management practices. As part of CCAR, the Federal Reserve quantitatively evaluates each CCAR Firm's plans to make capital distributions, such as dividend payments, stock repurchases or planned acquisitions. In past CCAR cycles, the Federal Reserve also subjected each CCAR Firm to a qualitative assessment with the possibility of a qualitative objection to its capital plan. Beginning with the 2017 CCAR cycle, only the largest firms (referred to as Large and Complex Firms) are subject to the possibility of a qualitative objection; in 2018, 18 of the 35 CCAR Firms are Large and Complex Firms subject to the qualitative assessment. For other CCAR Firms (Large and Noncomplex Firms), the Federal Reserve will assess the qualitative aspects of their capital planning processes as part of its normal supervisory process, without the possibility of a qualitative objection, through a targeted Horizontal Capital Review.

Differences Between Supervisory DFAST and CCAR Post-Stress Capital Analysis: While closely related, there are some important differences between the Federal Reserve's supervisory DFAST and the CCAR post-stress capital analysis. While the supervisory DFAST and CCAR quantitative assessments incorporate the same projections of pre-tax net income, the primary difference is the capital action assumptions that are combined with these projections to estimate a CCAR Firm's post-stress capital levels and ratios.

To project post-stress capital ratios for the supervisory DFAST, the Federal Reserve uses a standardized set of capital action assumptions that are specified in its DFAST regulations. Common stock dividend payments are generally assumed to continue at the same level as the previous year. Scheduled dividend, interest, or principal payments on any other capital instrument eligible for inclusion in the numerator of a regulatory capital ratio are assumed to be paid. No repurchases of common stock are assumed. The capital action assumptions do not include the issuance of any new common stock, preferred stock, or other instruments that would be included in regulatory capital, except for common stock issuance associated with expensed employee compensation or in connection with a planned merger or acquisition.



In contrast, for the CCAR post-stress capital analysis, the Federal Reserve uses a CCAR Firm's planned capital actions, and assesses whether the CCAR Firm would be capable of meeting supervisory expectations for minimum capital ratios even if stressful conditions emerged and the CCAR Firm did not reduce planned capital distributions.

As a result, post-stress capital ratios projected for the supervisory DFAST may differ significantly from those for the CCAR post-stress capital analysis.

Projections of Capital Ratios: Both CCAR and DFAST rely on projections of each firm's balance sheet, risk-weighted assets ("RWAs"), net income, and resulting regulatory capital ratios, all of which are projected for each quarter of the nine-quarter planning horizon in accordance with the regulatory capital requirements that will be effective for the firm in that quarter. Accordingly, each CCAR Firm's stressed capital projections reflect the applicable U.S. Basel III capital rules. Because the Federal Reserve has indefinitely delayed use of the advanced approaches risk-based capital framework for DFAST and CCAR, the RWAs for the projections are based on the standardized approach ("SA") for all firms (including advanced approaches firms).

	Periods Applicable	Minimum	Numerator (Capital) Methodology	Denominator (RWA) Methodology
Common Equity Tier 1 risk-based capital ratio ("CET1 RBC ratio")	2010.Q1	4.5%	Basel III	Basel III SA
Tier 1 risk-based capital ratio ("Tier 1 RBC ratio")		6%	Basel III	Basel III SA
Total risk-based capital ratio ("Total RBC ratio")		8%	Basel III	Basel III SA
Tier 1 leverage ratio		4%	Basel III	Avg. Assets
Supplementary Leverage Ratio ("SLR") (advanced approaches firms only)		3%	Basel III (Tier 1 capital)	Total Leverage Exposure

Changes Between 2017 and 2018 CCAR and DFAST: The 2018 CCAR and DFAST exercises were structurally similar to the 2017 exercises, with only two technical changes, each affecting the scope of CCAR Firms. First, certain Large and Complex Firms that were recently formed U.S. IHCs and therefore did not participate in CCAR 2017 (and which were instead subject to a confidential review in 2017) became subject to the CCAR process in 2018. These firms were the U.S. IHCs of Barclays, Credit Suisse, Deutsche Bank, RBC and UBS. (Deutsche Bank Trust Corporation, which is a subsidiary of DB USA Corporation, Deutsche Bank's U.S. IHC, participated in prior years' CCAR exercises as a U.S. BHC.) Second, three firms with between \$50 billion and \$100 billion in total consolidated assets—Comerica, CIT Group and Zions—were exempt from 2018 CCAR and DFAST due to the statutory threshold changes of the EGRRCPA. Apart from these scoping changes, the severely adverse supervisory scenario was significantly more severe for 2018 CCAR than the 2017 scenario, resulting in approximately 33% higher stress losses on average, based on changes in aggregated CET1 risk-based capital ratios under supervisory DFAST as reported by the Federal Reserve.

Quantitative and Qualitative Results: For 2018 CCAR, the Federal Reserve did not object to the capital plans of 34 of the 35 CCAR Firms. The Federal Reserve objected to one firm's capital plan on qualitative grounds and issued a conditional non-objection on quantitative grounds for three firms—Goldman Sachs, Morgan Stanley and State Street. The Federal Reserve projected each of the three firms for which it issued a conditional non-objection to have at least one minimum post-stress capital ratio lower than the corresponding minimum required capital ratio. For two of these firms, the conditions to Federal Reserve's non-objection effectively limit these firm's capital distributions based on a backward-looking benchmark, an approach consistent with the limitations imposed in past CCAR cycles for firms that did not meet post-stress minimum requirements. As in previous years, the Federal Reserve provided each CCAR Firm with an opportunity to make a downward adjustment to its original planned capital distributions after receiving the Federal Reserve's preliminary estimates of the firm's stressed capital ratios. Six firms took advantage of this opportunity to adjust their planned capital actions in the 2018 CCAR exercise.

Actual = Each BHC's reported capital ratio for Q4 2017, if available. Actual SLR ratios are reflected for advanced approaches BHCs based on the amounts the BHC reported under its company-run DFAST exercise (where available); where unavailable, amounts reflect data sourced from SNL Financial.

BHC DFAST = Lowest stressed capital ratio projected over the planning horizon under the BHC's company-run DFAST exercise, if available, which reflects the BHC's internal models as applied to the Supervisory Severely Adverse Stress Scenario and the <u>DFAST capital action assumptions</u>.

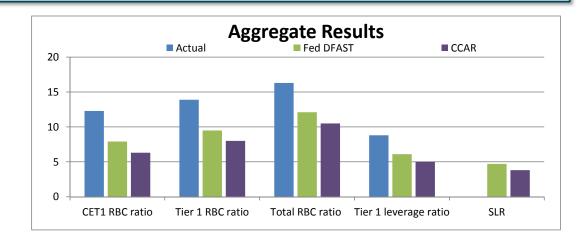
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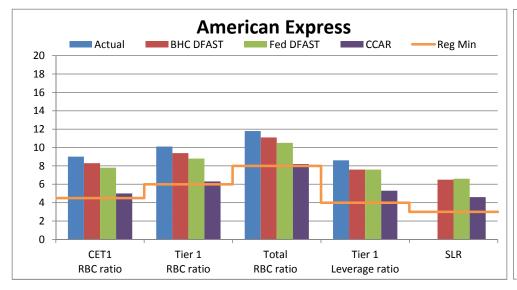
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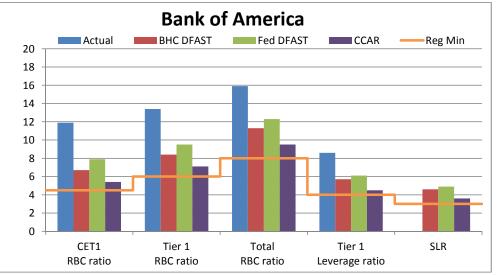
Snapshot: Change in Severity	2018	2017	Change
Avg. Starting CET1 Ratio	12.3%	12.5%	
Avg. Stressed Minimum CET1	7.9%	9.2%	
Average Peak-to-Trough CET1			
Losses	4.4%	3.3%	33%

The 2018 severely adverse supervisory scenario was 33% more severe on average than the 2017 scenario.



Advanced Approaches BHCs



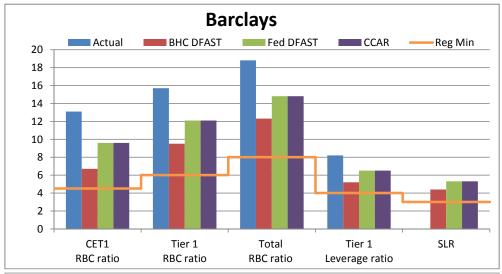


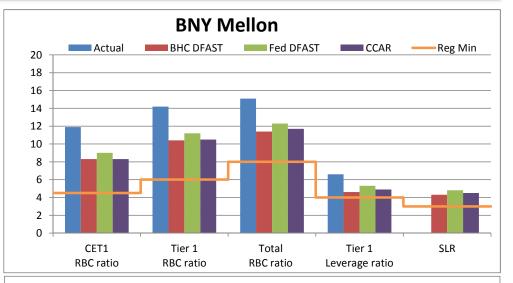
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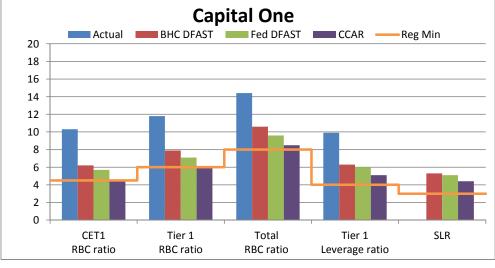
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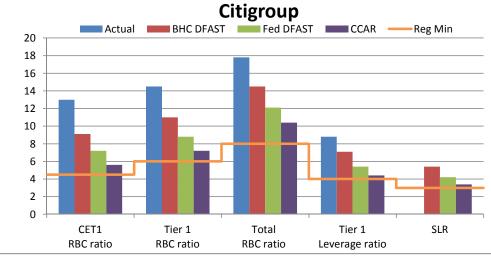
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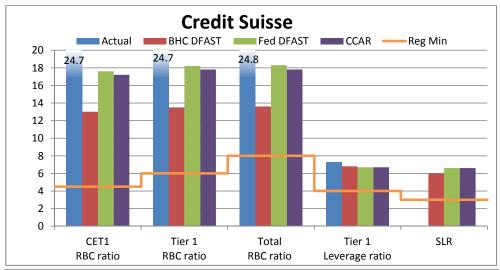


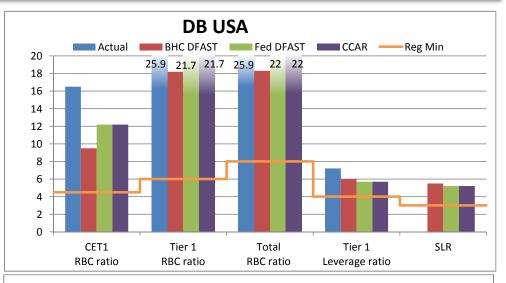
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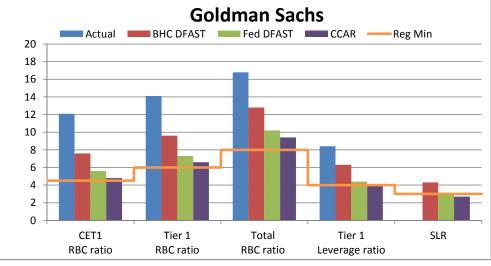
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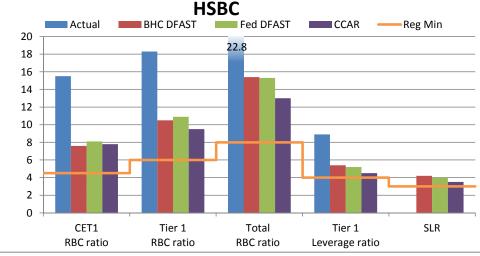
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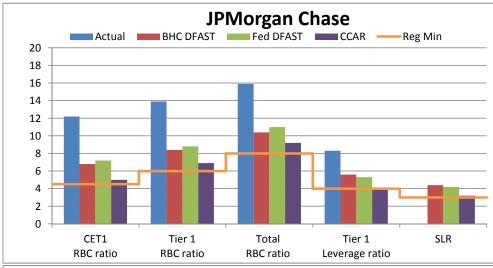


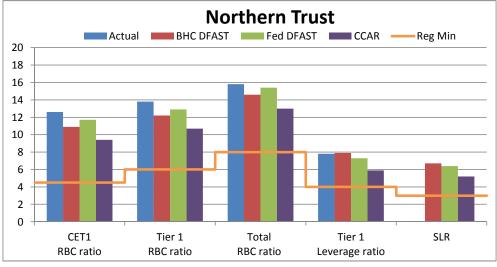
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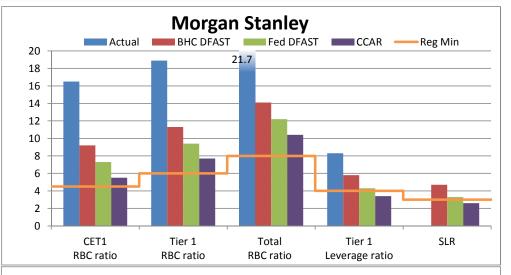
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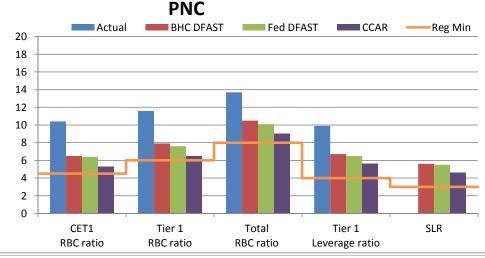
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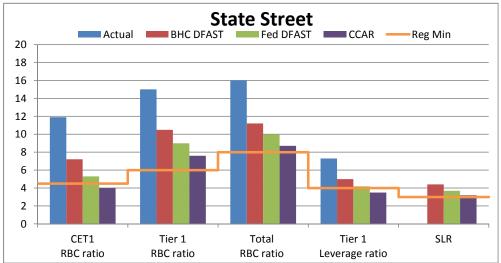


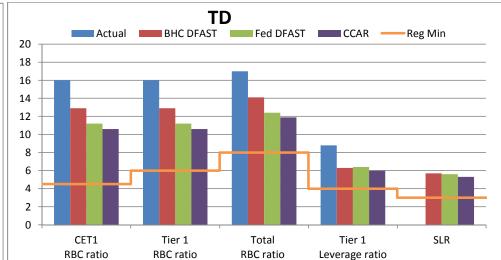
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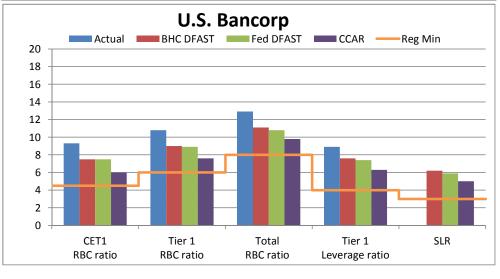
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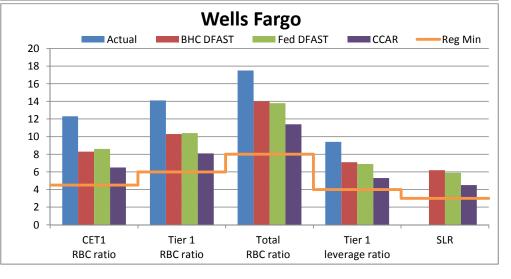
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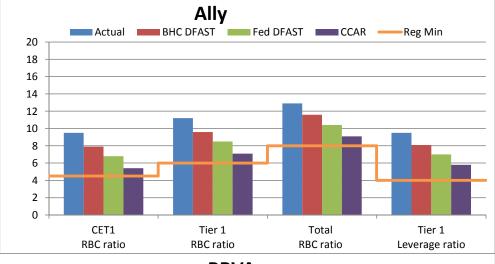
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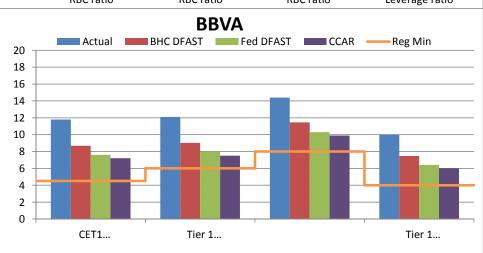
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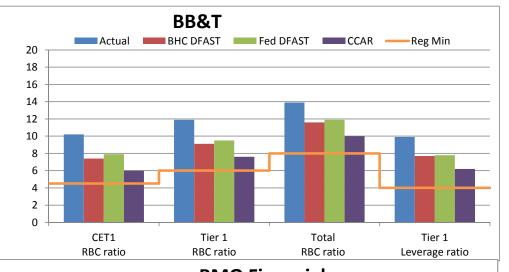
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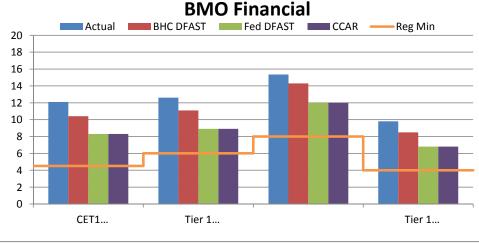
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Non-Advanced Approaches BHCs







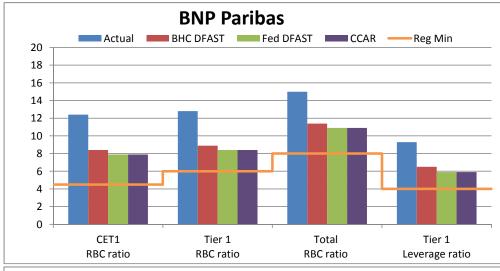


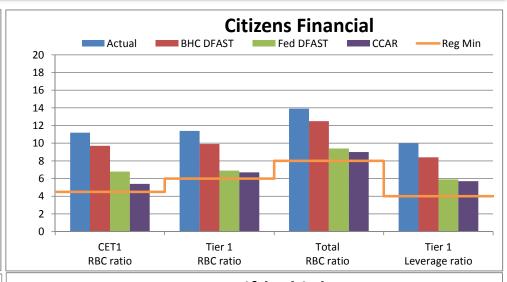
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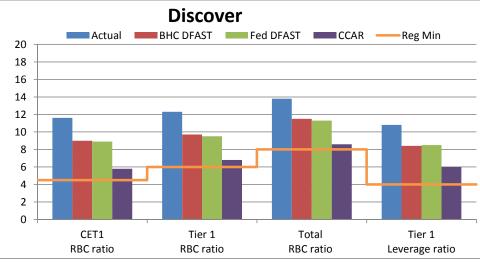
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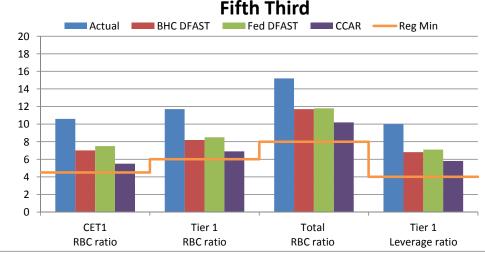
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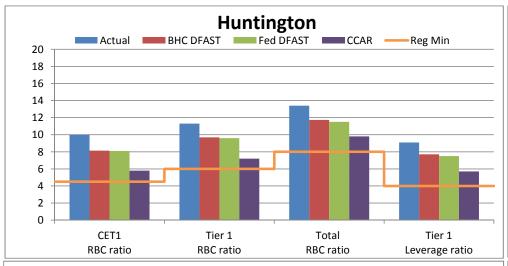


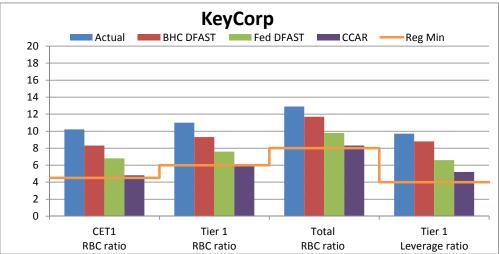
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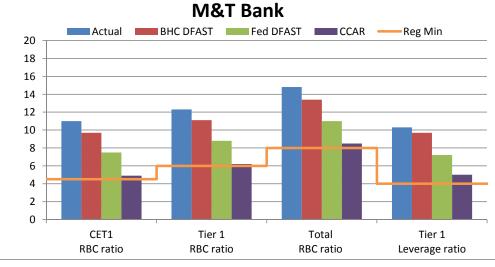
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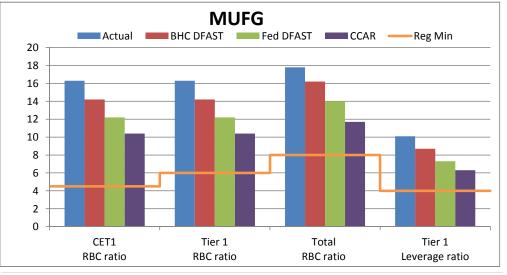
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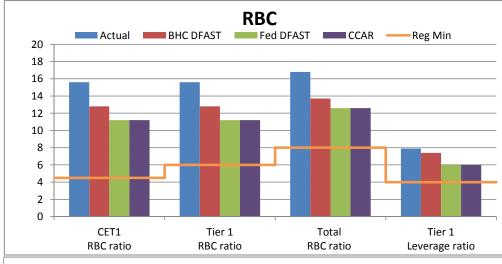


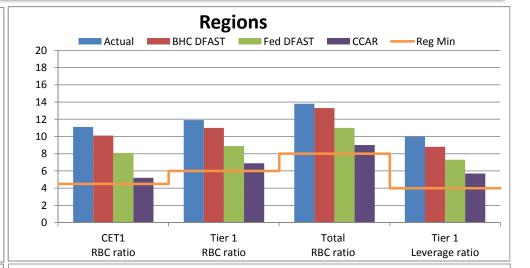
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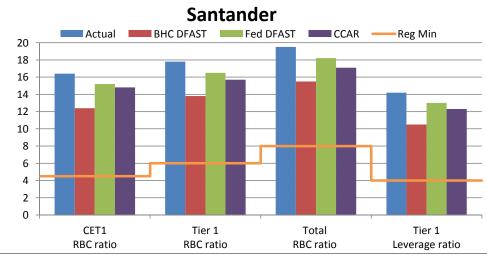
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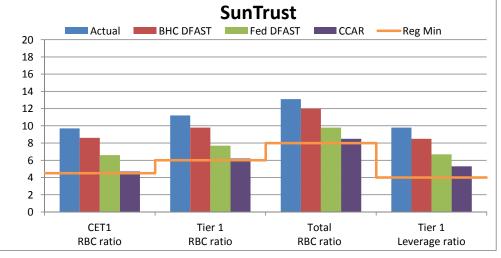
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Fed DFAST = Lowest stressed capital ratio projected over the planning horizon under the supervisory DFAST exercise, which reflects the Federal Reserve's models as applied to the Supervisory Severely Adverse Stress Scenario and the <u>DFAST capital action assumptions</u>.

Fed CCAR = Lowest stressed capital ratio projected over the planning horizon under the <u>Supervisory Severely Adverse Stress Scenario</u>, as determined as part of the Federal Reserve's CCAR post-stress capital analysis, which reflects the Federal Reserve's models as applied to the Supervisory Severely Adverse Stress Scenario and each BHC's <u>planned capital actions</u>. As in previous years, the Federal Reserve provided each Large BHC with an opportunity to make a downward adjustment to its original planned capital distributions after receiving the Federal Reserve's preliminary estimates of the BHC's stressed capital ratios. If a Large BHC has made such an adjustment, the lowest stressed capital ratio incorporating the BHC's <u>adjusted capital actions</u> is shown.

