A red-tinted photograph of the Federal Reserve Building in Washington, D.C. The building is a grand neoclassical structure with a prominent portico supported by tall columns. A flagpole with the American flag stands in front of the building. The sky is overcast with soft clouds.

Comprehensive Capital Analysis and Review 2018: Assessment Framework and Results

June 2018

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM



Comprehensive Capital Analysis and Review 2018: Assessment Framework and Results

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Mail Stop K1-120
Board of Governors of the Federal Reserve System
Washington, DC 20551
(ph) 202-452-3245
(fax) 202-728-5886
(email) Publications-BOG@frb.gov

Preface

The Federal Reserve promotes a safe, sound, and efficient banking and financial system that supports the growth and stability of the U.S. economy through its supervision of bank holding companies (BHCs), U.S. intermediate holding companies (IHCs), savings and loan holding companies, state member banks, and nonbank financial institutions that the Financial Stability Oversight Council (FSOC) has determined shall be supervised by the Board of Governors of the Federal Reserve System (Board).¹

The Federal Reserve has established frameworks and programs for the supervision of its largest and most complex financial institutions to achieve its supervisory objectives, incorporating the lessons learned from the 2007 to 2009 financial crisis and in the period since. As part of these supervisory frameworks and programs, the Federal Reserve assesses whether BHCs with \$100 billion or more in total consolidated assets and U.S. IHCs (together, firms) are sufficiently capitalized to absorb losses during stressful conditions, while meeting obligations to creditors and counterparties and continuing to be able to lend to households and businesses.² The Federal Reserve's expectations for capital planning practices are tailored to the size, scope of operations, activities, and systemic importance of a particular firm. In particular, the Federal Reserve has heightened expectations for BHCs and U.S. IHCs supervised by the Large Institution Supervision Coordinating Committee (LISCC firms) and "large and complex firms."³

¹ Information on the Federal Reserve's regulation and supervision function, including more detail on stress testing and capital planning assessment, is available on the Federal Reserve website at www.federalreserve.gov/supervisionreg.htm.

² Enacted on May 24, 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) raised the asset thresholds for application of section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The Board will not disclose the current CCAR results for BHCs with greater than or equal to \$50 billion but less than \$100 billion in total consolidated assets. This document reflects those changes.

³ Large and complex firms are BHCs or U.S. IHCs that (1) have average total consolidated assets over \$250 billion or (2) have

This annual assessment includes two related programs:

- **The Comprehensive Capital Analysis and Review (CCAR)** consists of a quantitative assessment for all firms, and a qualitative assessment for firms that are LISCC or large and complex firms. The quantitative assessment evaluates a firm's capital adequacy and planned capital distributions, such as any dividend payments and common stock repurchases. The Federal Reserve assesses whether firms have sufficient capital to continue operating and lending to creditworthy households and businesses throughout times of economic and financial market stress, even after making all planned capital distributions. CCAR also includes a qualitative assessment of capital planning practices at the largest and most complex firms. As part of the qualitative assessment, the Federal Reserve evaluates the reliability of each firm's analyses and other processes for capital planning, focusing on the areas that are most critical to sound capital planning—namely, how a firm identifies, measures, and determines capital needs for its material risks—and a firm's controls and governance around those practices. At the conclusion of the process, the Federal Reserve either does not object or objects to a firm's capital plan. If the Federal Reserve objects to a firm's capital plan, the firm may only make capital distributions that the Federal Reserve has not objected to in writing.
- **Dodd-Frank Act supervisory stress testing** is a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions on firms' capital. The supervisory stress test that is carried out pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) and the Board's rules⁴ serves to inform the Federal Reserve, firms, and

average total nonbank assets of \$75 billion or more, and (3) are not LISCC firms.

⁴ Pub. L. No. 111-203, 124 Stat. 1376 (2010); 12 CFR part 252, subpart E.

the general public of how institutions' capital ratios might change under a hypothetical set of stressful economic conditions developed by the Federal Reserve. The supervisory stress test results, after incorporating firms' planned capital actions, are also used for the quantitative assessment in CCAR. All BHCs with \$100 billion or more in

total consolidated assets and U.S. IHCs are currently subject to Dodd-Frank supervisory stress testing.⁵

⁵ Currently, the nonbank financial company supervised by the Board is not subject to the capital planning or stress test requirements.

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Executive Summary

Large financial institutions have more than doubled their capital levels since the financial crisis, in part because of supervisory programs like CCAR. (For more information on recent trends in capital levels, see [box 1](#).) Capital is central to a firm's ability to absorb losses and continue operating and lending to creditworthy businesses and consumers.

The crisis illustrated that confidence in the capitalization and overall financial strength of a financial institution can erode rapidly in the face of changes in current or expected economic and financial conditions. More importantly, the crisis revealed that sudden actual or expected erosions of capital can lead to loss of investor and counterparty confidence in the financial strength of a systemically important financial institution, which may not only imperil that institution's viability, but also harm the broader financial system. For this reason, the Federal Reserve has made assessments of capital planning and post-stress analysis of capital adequacy a cornerstone of its supervision of the largest financial institutions.

The Federal Reserve's annual CCAR exercise is an intensive assessment of the capital adequacy and capital planning practices of large U.S. financial institutions. "Large and noncomplex firms" with total consolidated assets of \$100 billion or more are required to submit capital plans and demonstrate an ability to meet their minimum capital requirements under stress as part of CCAR's quantitative assessment but are not subject to CCAR's qualitative assessment of their capital planning practices.⁶

⁶ Large and noncomplex firms are BHCs or U.S. IHCs that (1) have average total consolidated assets of \$50 billion or more, but less than \$250 billion, (2) have average total nonbank assets of less than \$75 billion, and (3) are not U.S. global systemically important banks. The 17 large and noncomplex firms subject to the quantitative assessment in CCAR 2018 are: Ally Financial Inc.; American Express Company; BB&T Corporation; BBVA Compass Bancshares, Inc.; BMO Financial Corp.; BNP Paribas USA, Inc.; Citizens Financial Group, Inc.; Discover Financial Services; Fifth Third Bancorp; Huntington Bancshares Incorporated; KeyCorp; M&T Bank Corporation; MUFG Americas Holdings Corporation; Northern Trust Corporation; Regions Financial Corporation; Santander Holdings USA, Inc.; and SunTrust Banks, Inc.

BHCs that are LISCC or large and complex firms⁷ are subject to both the qualitative and quantitative assessment processes of CCAR, and their capital plans can be objected to on either quantitative or qualitative grounds.⁸

The quantitative assessment helps to ensure that firms maintain sufficient capital to continue operations throughout times of economic and financial market stress. The horizontal nature of the assessment offers insights into the condition of the U.S. financial system, including whether firms are sufficiently resilient to continue to lend to households and businesses under such adverse conditions. The CCAR process can also act as a counterweight to pressures that a firm may face to use capital distributions to signal financial strength, even when facing a deteriorating or highly stressful environment.

The qualitative assessment seeks to ensure that firms have strong practices for assessing their capital needs that are supported by: effective firmwide identification, measurement, and management of their material risks; strong internal controls; and effective oversight by senior management and boards of directors. By focusing on the key elements of capital planning, the qualitative assessment helps promote better risk

⁷ The 18 LISCC and large and complex firms subject to the quantitative and qualitative assessment in CCAR 2018 are: Bank of America Corporation; The Bank of New York Mellon Corporation; Barclays US LLC; Capital One Financial Corporation; Citigroup Inc.; Credit Suisse Holdings (USA), Inc.; DB USA Corporation; The Goldman Sachs Group, Inc.; HSBC North America Holdings Inc.; JPMorgan Chase & Co.; Morgan Stanley; The PNC Financial Services Group, Inc.; RBC USA Holdco Corporation; State Street Corporation; TD Group US Holdings LLC; UBS Americas Holding LLC; U.S. Bancorp; and Wells Fargo & Company.

⁸ As part of the notice of proposed rulemaking introducing the stress capital buffer, the Board proposed a number of changes to the capital plan rule, including the elimination of the quantitative objection. The Board also asked a number of questions, including whether the Board should consider removing or adjusting the provisions that allow the Board to object to a large and complex or LISCC firm's capital plan on the basis of qualitative deficiencies in the firm's capital planning process. The Board will consider all comments on the proposal. 83 FR 18171 (April 25, 2018).

Box 1. Overview of Trends in Capital Levels

Figure A provides the aggregate ratio of common equity capital to risk-weighted assets for the firms in CCAR from 2009 through the fourth quarter of 2017.¹ This ratio has more than doubled from 5.2 percent in the first quarter of 2009 to 12.3 percent in the fourth quarter of 2017. That gain reflects a total increase of about \$800 billion in common equity capital from the beginning of 2009 among these firms, bringing their total common equity capital to over \$1.2 trillion in the fourth quarter of 2017.

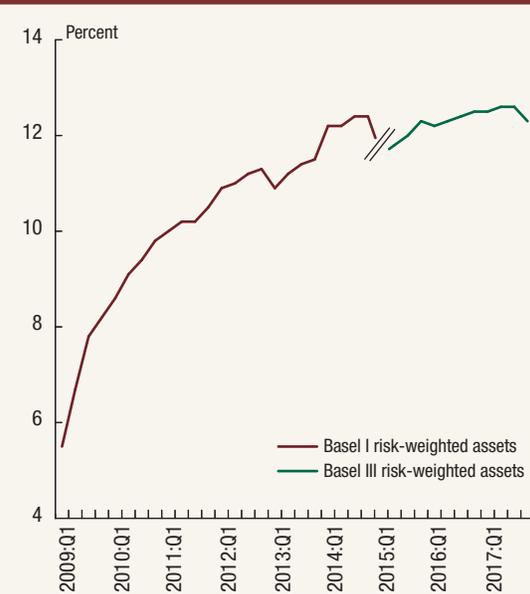
Common equity capital is expected to continue to increase, as 24 of the 35 firms participating in CCAR 2018 have estimated that their common equity will increase between the third quarter of 2018 and the second quarter of 2019, based on their planned capital actions and net income projections under their BHC baseline scenario.

These 35 firms hold about 80 percent of the total assets of all U.S. financial companies.² The financial

¹ The Federal Reserve's evaluation of a firm's common equity capital was initially measured using a tier 1 common capital ratio but now is evaluated using a common equity tier 1 capital ratio, which was introduced into the regulatory capital framework with the implementation of Basel III. From 2009 through 2013, tier 1 common was used to measure common equity capital for all firms. In 2014, both tier 1 common capital (for non-advanced approaches firms) and common equity tier 1 capital (for advanced approaches firms) were used. From 2015 to present, common equity tier 1 capital was used for all firms. Under both measures, firms have significantly increased their capital position since 2009. Not all of the 35 firms participating in CCAR 2018 reported data for all periods since 2009.

² This figure uses information from all firms that file the FR Y-9C, including domestic BHCs, IHCs, savings and loan holding companies, and securities holding companies to define U.S. financial companies.

Figure A. Aggregate common equity capital ratio of CCAR 2018 firms



Source: FR Y-9C.

crisis revealed that both the level and quality of capital contribute to a firm's ability to continue operating under adverse conditions. In part through programs like CCAR, the quantity and quality of capital held by these firms has improved, increasing the resilience of the banking sector and strengthening the financial system more broadly.

management and greater resiliency at the firms. Each firm must support its capital planning decisions with a forward-looking, comprehensive analysis that takes into account the firm's unique risk profile and activities as well as the effect of highly stressful operating environments on its financial condition.

The results of the qualitative assessment serve as inputs into other aspects of the Federal Reserve's supervisory program for the largest U.S. financial institutions and factor into supervisory assessments of each firm's risk management, corporate governance, and internal controls processes. Information gathered through the qualitative assessment also serves as an input into evaluations of a firm's capital adequacy and overall financial condition.

This report provides

1. background on the CCAR requirements;
2. descriptions of the assessment framework and summary of results for the quantitative assessment;
3. descriptions of the assessment framework, process, historical deficiencies, and summary of results for the qualitative assessment; and
4. information about the process and requirements of CCAR 2018, including the consequences for objections to a capital plan, the execution of planned capital distributions, the process for resubmitting a capital plan, and feedback pro-

vided by the Federal Reserve on a firm's capital plan.

Overview of Aggregate Results

Quantitative Assessment

In the supervisory post-stress capital assessment, the Federal Reserve estimates that the aggregate common equity tier 1 ratio for the firms participating in CCAR 2018 would decline in the severely adverse scenario from 12.3 percent in the fourth quarter of 2017 (the starting point for the exercise) to 6.3 percent at its minimum point over the nine-quarter planning horizon. This post-stress common equity tier 1 ratio is 1.1 percentage points higher than the firms' aggregate common equity tier 1 ratio in the first quarter of 2009. (See [tables 1](#) and [2](#) for more on the aggregate post-stress capital ratios for the firms that participated in CCAR 2018.)

Qualitative Assessment

On balance, most of the 18 firms participating in the CCAR 2018 qualitative assessment have continued to strengthen their capital planning practices since last year, with a majority of those firms being close to meeting or meeting supervisory expectations for

capital planning practices. However, certain firms have areas of weakness that fall short of meeting supervisory expectations for capital planning, particularly in the area of internal controls. Specific weaknesses include data and IT infrastructure, internal audit, and model risk management that support the capital planning processes. For further information, see the [Qualitative Assessment Framework, Process, and Summary of Results](#) section.

Capital Plan Decisions

No firms were objected to on quantitative grounds in CCAR 2018. The Board of Governors objected to the capital plan of DB USA Corporation on qualitative grounds based on material weaknesses in capital planning. The Board of Governors issued a conditional non-objection to the capital plan of State Street Corporation on quantitative grounds and has required the firm to take certain steps regarding the management and analysis of its counterparty exposures under stress. In addition, the Board of Governors issued conditional non-objections to the capital plans of The Goldman Sachs Group, Inc. (Goldman Sachs) and Morgan Stanley based on quantitative grounds. Each firm has agreed to limit their capital distributions to the levels they paid in recent years. The Board's decision on each firm's capital plan is presented in [table 3](#).

Table 1. Projected minimum regulatory capital ratios under the severely adverse scenario, 2018:Q1 to 2020:Q1: 35 participating firms

Percent

| Regulatory ratio | Actual 2017:Q4 | Projected minimum stressed ratios | |
|------------------------------------|-------------------|-----------------------------------|----------------------------------|
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.3 | 6.2 | 6.3 |
| Tier 1 capital ratio | 13.9 | 7.9 | 8.0 |
| Total capital ratio | 16.3 | 10.4 | 10.5 |
| Tier 1 leverage ratio | 8.8 | 5.0 | 5.0 |
| Supplementary leverage ratio | n/a | 3.8 | 3.8 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1. The minimum capital ratios do not necessarily occur in the same quarter. Supplementary leverage ratio projections only include estimates for firms subject to advanced approaches.

n/a Not applicable.

Source: Federal Reserve estimates in the severely adverse scenario.

Table 2. Projected minimum regulatory capital ratios under the adverse scenario, 2018:Q1 to 2020:Q1: 35 participating firms

Percent

| Regulatory ratio | Actual 2017:Q4 | Projected minimum stressed ratios | |
|------------------------------------|-------------------|-----------------------------------|----------------------------------|
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.3 | 8.9 | 9.0 |
| Tier 1 capital ratio | 13.9 | 10.5 | 10.6 |
| Total capital ratio | 16.3 | 12.7 | 12.8 |
| Tier 1 leverage ratio | 8.8 | 6.6 | 6.6 |
| Supplementary leverage ratio | n/a | 5.2 | 5.2 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1. The minimum capital ratios do not necessarily occur in the same quarter. Supplementary leverage ratio projections only include estimates for firms subject to advanced approaches.

n/a Not applicable.

Source: Federal Reserve estimates in the adverse scenario.

Table 3. Summary of the Federal Reserve's actions on capital plans in CCAR 2018

| Non-objection to capital plan | Conditional non-objection to capital plan | Objection to capital plan |
|---|---|---------------------------|
| Ally Financial Inc. | The Goldman Sachs Group, Inc. | DB USA Corporation |
| American Express Company | Morgan Stanley | |
| Bank of America Corporation | State Street Corporation | |
| BB&T Corporation | | |
| BBVA Compass Bancshares, Inc. | | |
| BMO Financial Corp. | | |
| Barclays US LLC | | |
| BNP Paribas USA, Inc. | | |
| The Bank of New York Mellon Corporation | | |
| Capital One Financial Corporation | | |
| Citigroup Inc. | | |
| Citizens Financial Group, Inc. | | |
| Credit Suisse Holdings (USA) | | |
| Discover Financial Services | | |
| Fifth Third Bancorp | | |
| HSBC North America Holdings Inc. | | |
| Huntington Bancshares Incorporated | | |
| JPMorgan Chase & Co. | | |
| Keycorp | | |
| M&T Bank Corporation | | |
| MUFG Americas Holdings Corporation | | |
| Northern Trust Corporation | | |
| The PNC Financial Services Group, Inc. | | |
| Regions Financial Corporation | | |
| RBC USA Holdco Corporation | | |
| Santander Holdings USA, Inc. | | |
| SunTrust Banks, Inc. | | |
| TD Group U.S. Holdings LLC | | |
| UBS Americas Holding LLC | | |
| US Bancorp | | |
| Wells Fargo & Company | | |

Requirements in CCAR 2018

In November 2011, the Board adopted a capital plan rule requiring firms with consolidated assets of \$50 billion or more to submit annual capital plans to the Federal Reserve for review.⁹ In February 2017, the Federal Reserve amended the capital plan rule to remove large and noncomplex firms from the qualitative assessment of CCAR. For the CCAR 2018 exercise, the Federal Reserve issued instructions on February 1, 2018,¹⁰ sent a letter to firms defining the scope of the 2018 CCAR qualitative assessment on February 14, 2018, and received capital plans from participating firms on April 5, 2018. The CCAR program was impacted by the May 24, 2018, enactment of the EGRRCPA. As a result, the Board will not disclose the current CCAR results for BHCs with greater than or equal to \$50 billion but less than \$100 billion in total consolidated assets.

Under the capital plan rule, a subject firm must include in its annual capital plan an assessment of the expected uses and sources of capital over the planning horizon under expected and stressful conditions, a detailed description of the firm's processes

for assessing capital adequacy, the firm's capital policy, and a discussion of any expected changes to the firm's business plan that are likely to have a material impact on the firm's capital adequacy or liquidity.¹¹

As noted, the Board adopted a revised regulatory capital framework in 2013 to address shortcomings in capital requirements that became apparent during the financial crisis.¹² The revisions were phased in from 2014 until 2018 and, generally, a firm must meet the regulatory capital requirements for each projected quarter of the planning horizon in CCAR in accordance with the capital requirements that will be in effect during that quarter.¹³ The bulk of the revised regulatory capital framework, including the supplementary leverage ratio for advanced approaches firms, became fully phased in in the first quarter of the CCAR 2018 projection horizon (the first quarter of 2018).¹⁴

⁹ See 12 CFR 225.8. Asset size is measured over the previous four calendar quarters as reported on the FR Y-9C regulatory report. If a firm has not filed the FR Y-9C for each of the four most recent consecutive quarters, average total consolidated assets means the average of the company's total consolidated assets, as reported on the company's FR Y-9C, for the most recent quarter or consecutive quarters.

¹⁰ See Board of Governors of the Federal Reserve System, *Comprehensive Capital Analysis and Review 2018 Summary Instructions for LISCC and Large and Complex Firms* (Washington: Board of Governors, February 2018), www.federalreserve.gov/newsevents/pressreleases/files/bcreg20180201a2.pdf.

¹¹ See 12 CFR 225.8(e)(2).

¹² See 78 FR 62018 (October 11, 2013); 12 CFR part 217.

¹³ Firms did not use the advanced approaches to calculate risk-weighted assets in CCAR 2018. See 12 CFR 225.8(d)(10). On November 21, 2017, the federal banking agencies finalized a rule applicable to non-advanced approaches banking organizations that extends the current regulatory capital treatment for mortgage servicing assets and certain other items.

¹⁴ For purposes of CCAR 2018, an advanced approaches BHC includes any firm that has consolidated assets greater than or equal to \$250 billion or total consolidated on-balance sheet foreign exposure of at least \$10 billion as of December 31, 2016. See 12 CFR 217.100(b)(1). Other BHCs include any firm that is subject to 12 CFR 225.8 and is not an advanced approaches BHC.

Quantitative Assessment Framework and Summary of Results

Assessment Framework

In the quantitative assessment, the Federal Reserve evaluated each firm's ability to maintain post-stress capital ratios above the applicable minimum regulatory capital ratios in effect during each quarter of the planning horizon under both expected and stressful conditions, after taking the capital actions described in the BHC baseline scenario of its capital plan. The CCAR quantitative assessment is based both on: (a) the results of the firm's internal stress tests and (b) post-stress capital ratios estimated by the Federal Reserve under the supervisory scenarios (CCAR supervisory post-stress capital analysis). The Federal Reserve may object to the capital plan of any firm that has not demonstrated an ability to maintain capital above each minimum regulatory capital ratio throughout the planning horizon in the post-stress capital analysis.

The CCAR supervisory post-stress capital analysis is based on estimates of net income, total assets, and risk-weighted assets from the Federal Reserve's supervisory stress test conducted under the Dodd-Frank Act.¹⁵ (For a comparison of the Dodd-Frank Act stress tests and CCAR, see [box 2](#).) As described in the overview of the methodology of the Dodd-Frank Act supervisory stress tests published on June 21, 2018, for these projections, the Federal Reserve uses data provided by all firms in the CCAR quantitative assessment and a set of models developed or selected by the Federal Reserve.¹⁶

¹⁵ For more on the methodology of the Federal Reserve's supervisory stress test, see Board of Governors of the Federal Reserve System, *Dodd-Frank Act Stress Test 2018: Supervisory Stress Test Methodology and Results* (Washington: Board of Governors, June 2018), www.federalreserve.gov/publications/files/2018-dfast-methodology-results-20180621.pdf.

¹⁶ For CCAR 2018, in addition to the models developed and data collected by the Federal Reserve, the Federal Reserve used proprietary models and data licensed from certain third-party providers. These providers are identified in appendix B, "Models to Project Net Income and Stressed Capital" of Board of Governors of the Federal Reserve System, *Dodd-Frank Act Stress Test 2018: Supervisory Stress Test Methodology and Results* (Wash-

ington: Board of Governors, June 2018), www.federalreserve.gov/publications/files/2018-dfast-methodology-results-20180621.pdf (see page 63, footnote 40).

The supervisory projections are conducted under three hypothetical macroeconomic and financial market scenarios developed by the Federal Reserve: the baseline, adverse, and severely adverse supervisory stress scenarios. While the same supervisory scenarios applied to all firms, a subset of firms was also subject to additional components in the severely adverse and adverse scenarios: the global market shock, counterparty default scenario, and supervisory market risk components.¹⁷ Firms were required to conduct stress tests using the same supervisory scenarios, at least one stress scenario developed by the firm (the BHC stress scenario), and a baseline scenario developed by the firm (BHC baseline scenario).¹⁸

As noted, the Federal Reserve incorporates a firm's planned capital actions under its baseline scenario, including any capital actions associated with business plan changes, in projecting the firm's post-stress capital ratios. Thus, the firms are assumed to maintain the level of dividends, share repurchases, and other capital distributions they in fact plan to

ington: Board of Governors, June 2018), www.federalreserve.gov/publications/files/2018-dfast-methodology-results-20180621.pdf (see page 63, footnote 40).

¹⁷ The six firms that were subject to the global market shock are Bank of America Corporation; Citigroup Inc.; The Goldman Sachs Group, Inc.; JPMorgan Chase & Co.; Morgan Stanley; and Wells Fargo & Company. See 12 CFR 252.54(b)(2). The eight firms that were subject to the counterparty default component are Bank of America Corporation; The Bank of New York Mellon Corporation; Citigroup Inc.; The Goldman Sachs Group, Inc.; JPMorgan Chase & Co.; Morgan Stanley; State Street Corporation; and Wells Fargo & Company. The six firms that were subject to the supervisory market risk component are: Barclays US LLC; Credit Suisse Holdings (USA), Inc.; DB USA Corporation; HSBC North America Holdings Inc.; RBC USA Holdco Corporation; and UBS Americas Holdings LLC. See 12 CFR 252.54(b)(2); Board of Governors of the Federal Reserve System, *2018 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule* (Washington: Board of Governors, February 2018), www.federalreserve.gov/publications/2018-february-supervisory-scenarios-for-annual-stress-tests.htm.

¹⁸ The Federal Reserve expects a firm that uses the supervisory baseline scenario as its BHC baseline scenario to explain why the supervisory baseline scenario is an appropriate representation of the most likely outlook for the risk factors salient to the firm.

Box 2. Differences between the Dodd-Frank Act Supervisory Stress Tests and the CCAR Post-stress Capital Analysis

While the Dodd-Frank Act supervisory stress tests and the CCAR supervisory post-stress capital analysis incorporate the same projections of net income, total assets, and risk-weighted assets, the two processes use different capital action assumptions to project post-stress capital levels and ratios.

Capital Action Assumptions for the Dodd-Frank Act Supervisory Stress Tests

To project post-stress capital ratios for the Dodd-Frank Act supervisory stress tests, the Federal Reserve uses a standardized set of capital action assumptions that are specified in the Dodd-Frank Act stress test rules. Generally:

- Common stock dividend payments are 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.
- Repurchases of such capital instruments are assumed to be zero.

The capital action assumptions do not include issuances of new common stock or preferred stock, except for issuances related to expensed employee

compensation or in connection with a planned merger or acquisition to the extent that the merger or acquisition is reflected in the firm's pro forma balance sheet estimates.¹ The projection of post-stress capital ratios includes capital actions and other changes in the balance sheet associated with any business plan changes under a given scenario.

Capital Actions for CCAR

For the CCAR post-stress capital analysis, the Federal Reserve generally uses a firm's planned capital actions under its BHC baseline scenario, including both proposed capital issuances and proposed capital distributions, and incorporates related business plan changes.

As a result, post-stress capital ratios projected for the Dodd-Frank Act supervisory stress tests can differ significantly from those for the CCAR post-stress capital analysis. For example, if a firm increases its dividend, or repurchases common equity in its planned capital actions, the firm's post-stress capital ratios projected for the CCAR capital analysis could be lower than those projected for the Dodd-Frank Act supervisory stress tests.

¹ See 12 CFR 252.56(b).

execute over the planning horizon despite the hypothetically severe deterioration in the economic and financial environment. In an actual downturn, firms may reduce capital distributions under stressful conditions.

The Federal Reserve provides each firm with a one-time opportunity to adjust its planned capital distributions after it receives the Federal Reserve's preliminary estimates of the firm's post-stress capital ratios. For this adjustment, the Federal Reserve considered reductions in capital distributions, including decreasing planned common stock dividends and/or reducing planned repurchases or redemptions of other regulatory capital instruments, relative to those initially submitted by a firm in its April 2018 capital plan. The Federal Reserve also considered increases in firms' planned issuances of common stock in the third quarter of the planning horizon in instances where a firm has reduced its planned capital distributions to zero in the second through ninth quarters of the planning horizon. These adjusted capital actions, where applicable, were then incorporated into the Federal Reserve's projections to calculate adjusted

post-stress capital levels and ratios. The Federal Reserve discloses post-stress results with a firm's original capital actions and any adjusted capital actions.

Summary of Quantitative Results

The Board of Governors did not object to any firm's capital plan on quantitative grounds.

The Board of Governors issued conditional non-objections to the capital plans of Goldman Sachs, Morgan Stanley, and State Street Corporation.

Results of Quantitative Assessment

Tables 4 and 5 contain minimum post-stress common equity tier 1 ratios for each of the firms under the supervisory severely adverse and adverse scenarios. The middle column of the table incorporates the original planned capital distributions submitted by the firms in April 2018. The ratios reported in the right-hand column incorporate any adjusted capital distributions submitted by a firm after receiving the

Federal Reserve's preliminary CCAR post-stress capital analysis.

Tables 6.A and 6.B report minimum capital ratios under the supervisory severely adverse scenario based on both the original and adjusted planned capital actions, where applicable. The ratios based on adjusted capital actions are only reported for those firms that submitted adjusted capital actions. The results in table 6.A are for firms subject to the advanced approaches, and the results in 6.B are for firms that are not subject to the advanced approaches.

In the supervisory severely adverse scenario, American Express Company, JPMorgan Chase & Co., KeyCorp, and M&T Bank Corporation were projected to have at least one minimum post-stress capital ratio lower than the minimum required regulatory capital ratios based on their original planned capital actions. However, they were able to maintain their post-stress regulatory capital ratios above minimum requirements in the severely adverse scenario after submitting adjusted capital actions. There is no restriction imposed by the Board if a firm adjusts its capital plan.

The Board of Governors issued a conditional non-objection to the capital plans of Goldman Sachs, Morgan Stanley, and State Street Corporation. In the supervisory severely adverse scenario, each firm is projected to have at least one minimum post-stress capital ratio lower than the minimum required regulatory capital ratios. The post-stress capital ratios of these firms were affected by, among other factors, the enactment of the Tax Cuts and Jobs Act (TCJA) on their starting and projected capital positions under stress.

In assessing the capital plans submitted by these firms, the Board took into account a number of factors, including the one-time negative impact that resulted from the TCJA and not as a result of the stress test, the relative timing of the tax law changes, and the longer-term positive effect of the TCJA. Specifically, the TCJA resulted in one-time downward adjustments in the capital ratios of these firms, which do not reflect the firms' performances under stress. Additionally, the enactment of TCJA in late December introduced uncertainties that affected the capital ratios of the firms under CCAR. The TCJA is also expected to have a positive effect on firms'

capital positions over time as the lower corporate tax rate boosts firms' earnings after taxes. The Federal Reserve expects each of these firms to strengthen its capital position in the near term.

Goldman Sachs

The Board of Governors did not object to Goldman Sachs' capital plan. The firm fell below the minimum required tier 1 leverage and supplementary leverage ratios on a post-stress basis. Goldman Sachs has agreed to limit the amount of its planned capital distributions to no more than a benchmark based on prior actual capital distributions. The benchmark is set at the greater of the actual distributions the firm made over the previous four calendar quarters and the annualized average of actual distributions over the previous eight calendar quarters.

Morgan Stanley

The Board of Governors did not object to Morgan Stanley's capital plan. The firm fell below the minimum required tier 1 leverage and supplementary leverage ratios on a post-stress basis. Morgan Stanley has agreed to limit the amount of its planned capital distributions to no more than a benchmark based on prior actual capital distributions. The benchmark is set at the greater of the actual distributions the firm made over the previous four calendar quarters and the annualized average of actual distributions over the previous eight calendar quarters.

State Street

The Board of Governors did not object to State Street Corporation's capital plan. However, State Street Corporation fell below the minimum required common equity tier 1 and tier 1 leverage ratios on a post-stress basis. The Board has required the firm to take certain steps regarding the management and analysis of its counterparty exposures under stress.

Under the Board's capital plan rule, firms may re-submit their capital plans before the next stress test cycle and request additional distributions.

Tables 7.A and 7.B report minimum capital ratios in the supervisory adverse scenario based on both the original and adjusted planned capital actions, where applicable. The minimum capital ratios were generally higher in the supervisory adverse scenario than in the supervisory severely adverse scenario.

Table 4. Projected minimum common equity tier 1 ratio in the severely adverse scenario, 2018:Q1 to 2020:Q1

Percent

| Firm | Stressed ratio with original planned capital actions | Stressed ratio with adjusted planned capital actions |
|---|--|--|
| Ally Financial Inc. | 5.4 | |
| American Express Company | 4.4 | 5.0 |
| Bank of America Corporation | 5.4 | |
| The Bank of New York Mellon Corporation | 8.3 | |
| Barclays US LLC | 9.6 | |
| BB&T Corporation | 6.0 | |
| BBVA Compass Bancshares, Inc. | 7.2 | |
| BMO Financial Corp. | 8.3 | |
| BNP Paribas USA, Inc. | 7.9 | |
| Capital One Financial Corporation | 4.6 | |
| Citigroup Inc. | 5.6 | |
| Citizens Financial Group, Inc. | 5.4 | |
| Credit Suisse Holdings (USA), Inc. | 17.2 | |
| DB USA Corporation | 12.2 | |
| Discover Financial Services | 5.8 | |
| Fifth Third Bancorp | 5.5 | |
| The Goldman Sachs Group, Inc. | 4.6 | 4.8 |
| HSBC North America Holdings Inc. | 7.8 | |
| Huntington Bancshares Incorporated | 5.8 | |
| JPMorgan Chase & Co. | 4.9 | 5.0 |
| KeyCorp | 4.6 | 4.8 |
| M&T Bank Corporation | 4.0 | 4.9 |
| Morgan Stanley | 5.0 | 5.5 |
| MUFG Americas Holdings Corporation | 10.4 | |
| Northern Trust Corporation | 9.4 | |
| The PNC Financial Services Group, Inc. | 5.3 | |
| RBC USA Holdco Corporation | 11.2 | |
| Regions Financial Corporation | 5.2 | |
| Santander Holdings USA, Inc. | 14.8 | |
| State Street Corporation | 4.0 | |
| SunTrust Banks, Inc. | 4.7 | |
| TD Group US Holdings LLC | 10.6 | |
| UBS Americas Holding LLC | 16.2 | |
| U.S. Bancorp | 6.0 | |
| Wells Fargo & Company | 6.5 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Source: Federal Reserve estimates in the severely adverse scenario.

Table 5. Projected minimum common equity tier 1 ratio in the adverse scenario, 2018:Q1 to 2020:Q1

Percent

| Firm | Stressed ratio with original planned capital actions | Stressed ratio with adjusted planned capital actions |
|---|--|--|
| Ally Financial Inc. | 6.4 | |
| American Express Company | 6.6 | 7.2 |
| Bank of America Corporation | 8.1 | |
| The Bank of New York Mellon Corporation | 10.9 | |
| Barclays US LLC | 11.2 | |
| BB&T Corporation | 7.4 | |
| BBVA Compass Bancshares, Inc. | 9.7 | |
| BMO Financial Corp. | 9.9 | |
| BNP Paribas USA, Inc. | 10.0 | |
| Capital One Financial Corporation | 8.2 | |
| Citigroup Inc. | 9.3 | |
| Citizens Financial Group, Inc. | 7.1 | |
| Credit Suisse Holdings (USA), Inc. | 19.6 | |
| DB USA Corporation | 13.3 | |
| Discover Financial Services | 8.5 | |
| Fifth Third Bancorp | 7.4 | |
| The Goldman Sachs Group, Inc. | 8.2 | 8.3 |
| HSBC North America Holdings Inc. | 10.6 | |
| Huntington Bancshares Incorporated | 6.8 | |
| JPMorgan Chase & Co. | 7.9 | 8.0 |
| KeyCorp | 6.4 | 6.5 |
| M&T Bank Corporation | 6.3 | 7.3 |
| Morgan Stanley | 10.0 | 10.5 |
| MUFG Americas Holdings Corporation | 12.5 | |
| Northern Trust Corporation | 9.6 | |
| The PNC Financial Services Group, Inc. | 7.9 | |
| RBC USA Holdco Corporation | 13.4 | |
| Regions Financial Corporation | 6.9 | |
| Santander Holdings USA, Inc. | 16.5 | |
| State Street Corporation | 8.4 | |
| SunTrust Banks, Inc. | 6.4 | |
| TD Group US Holdings LLC | 13.2 | |
| UBS Americas Holding LLC | 17.6 | |
| U.S. Bancorp | 7.7 | |
| Wells Fargo & Company | 9.4 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Source: Federal Reserve estimates in the adverse scenario.

Table 6.A. Projected minimum regulatory capital ratios in the severely adverse scenario, 2018:Q1 to 2020:Q1: Advanced approaches firms

Percent

| Firm | Capital actions | Common equity tier 1 capital ratio | | Tier 1 capital ratio | | Total capital ratio | | Tier 1 leverage ratio | | Supplementary leverage ratio ¹ | |
|---|-----------------|------------------------------------|-------------------|----------------------|-------------------|---------------------|-------------------|-----------------------|-------------------|---|-------------------|
| | | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum |
| American Express Company | Original | 9.0 | 4.4 | 10.1 | 5.7 | 11.8 | 7.6 | 8.6 | 4.8 | n/a | 4.1 |
| | Adjusted | 9.0 | 5.0 | 10.1 | 6.3 | 11.8 | 8.2 | 8.6 | 5.3 | n/a | 4.6 |
| Bank of America Corporation | Original | 11.9 | 5.4 | 13.4 | 7.1 | 15.9 | 9.5 | 8.6 | 4.5 | n/a | 3.6 |
| | Adjusted | | | | | | | | | n/a | |
| The Bank of New York Mellon Corporation | Original | 11.9 | 8.3 | 14.2 | 10.5 | 15.1 | 11.7 | 6.6 | 4.9 | n/a | 4.5 |
| | Adjusted | | | | | | | | | n/a | |
| Barclays US LLC | Original | 13.1 | 9.6 | 15.7 | 12.1 | 18.8 | 14.8 | 8.2 | 6.5 | n/a | 5.3 |
| | Adjusted | | | | | | | | | n/a | |
| Capital One Financial Corporation | Original | 10.3 | 4.6 | 11.8 | 6.1 | 14.4 | 8.5 | 9.9 | 5.1 | n/a | 4.4 |
| | Adjusted | | | | | | | | | n/a | |
| Citigroup Inc. | Original | 13.0 | 5.6 | 14.5 | 7.2 | 17.8 | 10.4 | 8.8 | 4.4 | n/a | 3.4 |
| | Adjusted | | | | | | | | | n/a | |
| Credit Suisse Holdings (USA), Inc. ² | Original | 24.7 | 17.2 | 24.7 | 17.8 | 24.8 | 17.8 | 7.3 | 6.7 | n/a | 6.6 |
| | Adjusted | | | | | | | | | n/a | |
| DB USA Corporation | Original | 16.5 | 12.2 | 25.9 | 21.7 | 25.9 | 22.0 | 7.2 | 5.7 | n/a | 5.2 |
| | Adjusted | | | | | | | | | n/a | |
| The Goldman Sachs Group, Inc. | Original | 12.1 | 4.6 | 14.1 | 6.4 | 16.8 | 9.2 | 8.4 | 3.8 | n/a | 2.6 |
| | Adjusted | 12.1 | 4.8 | 14.1 | 6.6 | 16.8 | 9.4 | 8.4 | 3.9 | n/a | 2.7 |
| HSBC North America Holdings Inc. | Original | 15.5 | 7.8 | 18.3 | 9.5 | 22.8 | 13.0 | 8.9 | 4.5 | n/a | 3.5 |
| | Adjusted | | | | | | | | | n/a | |
| JPMorgan Chase & Co. | Original | 12.2 | 4.9 | 13.9 | 6.6 | 15.9 | 8.9 | 8.3 | 3.9 | n/a | 3.0 |
| | Adjusted | 12.2 | 5.0 | 13.9 | 6.9 | 15.9 | 9.2 | 8.3 | 4.1 | n/a | 3.2 |
| Morgan Stanley | Original | 16.5 | 5.0 | 18.9 | 7.3 | 21.7 | 10.0 | 8.3 | 3.2 | n/a | 2.5 |
| | Adjusted | 16.5 | 5.5 | 18.9 | 7.7 | 21.7 | 10.4 | 8.3 | 3.4 | n/a | 2.6 |
| Northern Trust Corporation | Original | 12.6 | 9.4 | 13.8 | 10.7 | 15.8 | 13.0 | 7.8 | 5.9 | n/a | 5.2 |
| | Adjusted | | | | | | | | | n/a | |
| The PNC Financial Services Group, Inc. | Original | 10.4 | 5.3 | 11.6 | 6.5 | 13.7 | 9.0 | 9.9 | 5.6 | n/a | 4.6 |
| | Adjusted | | | | | | | | | n/a | |
| State Street Corporation | Original | 11.9 | 4.0 | 15.0 | 7.6 | 16.0 | 8.7 | 7.3 | 3.5 | n/a | 3.2 |
| | Adjusted | | | | | | | | | n/a | |
| TD Group US Holdings LLC | Original | 16.0 | 10.6 | 16.0 | 10.6 | 17.0 | 11.9 | 8.8 | 6.0 | n/a | 5.3 |
| | Adjusted | | | | | | | | | n/a | |
| U.S. Bancorp | Original | 9.3 | 6.0 | 10.8 | 7.6 | 12.9 | 9.8 | 8.9 | 6.3 | n/a | 5.0 |
| | Adjusted | | | | | | | | | n/a | |
| Wells Fargo & Company | Original | 12.3 | 6.5 | 14.1 | 8.1 | 17.5 | 11.4 | 9.4 | 5.3 | n/a | 4.5 |
| | Adjusted | | | | | | | | | n/a | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1. The minimum capital ratios do not necessarily occur in the same quarter.

¹ The supplementary leverage ratio is calculated only for firms subject to the advanced approaches.

² The minimum and ending leverage ratios and supplementary leverage ratios for Credit Suisse Holdings (USA), Inc. reflect an adjustment to average consolidated assets and total leverage exposure, respectively, to account for asset migrations completed at the end of 2017:Q4.

n/a Not applicable.

Source: Federal Reserve estimates in the severely adverse scenario.

Required minimum capital ratios in CCAR 2018 for advanced approaches firms (percent)

| Regulatory ratio | Minimum |
|------------------------------------|---------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 capital ratio | 6.0 |
| Total capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed. Firms subject to the advanced approaches are required to maintain a supplementary leverage ratio above 3 percent for quarters corresponding to 2018:Q1 to 2020:Q1. See 12 CFR 225.8(c)(3) and 12 CFR 225.8(d)(8).

Table 6.B. Projected minimum regulatory capital ratios in the severely adverse scenario, 2018:Q1 to 2020:Q1: Non-advanced approaches firms

Percent

| Firm | Capital actions | Common equity tier 1 capital ratio | | Tier 1 capital ratio | | Total capital ratio | | Tier 1 leverage ratio | |
|------------------------------------|-----------------|------------------------------------|-------------------|----------------------|-------------------|---------------------|-------------------|-----------------------|-------------------|
| | | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum |
| Ally Financial Inc. | Original | 9.5 | 5.4 | 11.2 | 7.1 | 12.9 | 9.1 | 9.5 | 5.8 |
| | Adjusted | | | | | | | | |
| BB&T Corporation | Original | 10.2 | 6.0 | 11.9 | 7.6 | 13.9 | 10.0 | 9.9 | 6.2 |
| | Adjusted | | | | | | | | |
| BBVA Compass Bancshares, Inc. | Original | 11.8 | 7.2 | 12.1 | 7.5 | 14.4 | 9.9 | 10.0 | 6.0 |
| | Adjusted | | | | | | | | |
| BMO Financial Corp. | Original | 12.1 | 8.3 | 12.6 | 8.9 | 15.3 | 12.0 | 9.8 | 6.8 |
| | Adjusted | | | | | | | | |
| BNP Paribas USA, Inc. | Original | 12.4 | 7.9 | 12.8 | 8.4 | 15.0 | 10.9 | 9.3 | 5.9 |
| | Adjusted | | | | | | | | |
| Citizens Financial Group, Inc. | Original | 11.2 | 5.4 | 11.4 | 6.7 | 13.9 | 9.0 | 10.0 | 5.7 |
| | Adjusted | | | | | | | | |
| Discover Financial Services | Original | 11.6 | 5.8 | 12.3 | 6.8 | 13.8 | 8.6 | 10.8 | 6.0 |
| | Adjusted | | | | | | | | |
| Fifth Third Bancorp | Original | 10.6 | 5.5 | 11.7 | 6.9 | 15.2 | 10.2 | 10.0 | 5.8 |
| | Adjusted | | | | | | | | |
| Huntington Bancshares Incorporated | Original | 10.0 | 5.8 | 11.3 | 7.2 | 13.4 | 9.8 | 9.1 | 5.7 |
| | Adjusted | | | | | | | | |
| KeyCorp | Original | 10.2 | 4.6 | 11.0 | 5.9 | 12.9 | 8.2 | 9.7 | 5.2 |
| | Adjusted | 10.2 | 4.8 | 11.0 | 6.0 | 12.9 | 8.3 | 9.7 | 5.2 |
| M&T Bank Corporation | Original | 11.0 | 4.0 | 12.3 | 5.2 | 14.8 | 7.5 | 10.3 | 4.2 |
| | Adjusted | 11.0 | 4.9 | 12.3 | 6.2 | 14.8 | 8.5 | 10.3 | 5.0 |
| MUFG Americas Holdings Corporation | Original | 16.3 | 10.4 | 16.3 | 10.4 | 17.8 | 11.7 | 10.1 | 6.3 |
| | Adjusted | | | | | | | | |
| RBC USA Holdco Corporation | Original | 15.6 | 11.2 | 15.6 | 11.2 | 16.8 | 12.6 | 7.9 | 6.0 |
| | Adjusted | | | | | | | | |
| Regions Financial Corporation | Original | 11.1 | 5.2 | 11.9 | 6.9 | 13.8 | 9.0 | 10.0 | 5.7 |
| | Adjusted | | | | | | | | |
| Santander Holdings USA, Inc. | Original | 16.4 | 14.8 | 17.8 | 15.7 | 19.5 | 17.1 | 14.2 | 12.3 |
| | Adjusted | | | | | | | | |
| SunTrust Banks, Inc. | Original | 9.7 | 4.7 | 11.2 | 6.2 | 13.1 | 8.5 | 9.8 | 5.3 |
| | Adjusted | | | | | | | | |
| UBS Americas Holding LLC | Original | 21.9 | 16.2 | 24.3 | 20.4 | 25.8 | 22.7 | 8.9 | 7.4 |
| | Adjusted | | | | | | | | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1. The minimum capital ratios do not necessarily occur in the same quarter.

Source: Federal Reserve estimates in the severely adverse scenario.

Required minimum capital ratios in CCAR 2018 for other firms (percent)

| Regulatory ratio | Minimum |
|------------------------------------|---------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 capital ratio | 6.0 |
| Total capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 7.A. Projected minimum regulatory capital ratios in the adverse scenario, 2018:Q1 to 2020:Q1: Advanced approaches firms

Percent

| Firm | Capital actions | Common equity tier 1 capital ratio | | Tier 1 capital ratio | | Total capital ratio | | Tier 1 leverage ratio | | Supplementary leverage ratio ¹ | |
|---|-----------------|------------------------------------|-------------------|----------------------|-------------------|---------------------|-------------------|-----------------------|-------------------|---|-------------------|
| | | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum |
| American Express Company | Original | 9.0 | 6.6 | 10.1 | 7.9 | 11.8 | 9.7 | 8.6 | 6.6 | n/a | 5.7 |
| | Adjusted | 9.0 | 7.2 | 10.1 | 8.4 | 11.8 | 10.2 | 8.6 | 7.1 | n/a | 6.1 |
| Bank of America Corporation | Original | 11.9 | 8.1 | 13.4 | 9.8 | 15.9 | 11.9 | 8.6 | 6.2 | n/a | 5.0 |
| | Adjusted | | | | | | | | | n/a | |
| The Bank of New York Mellon Corporation | Original | 11.9 | 10.9 | 14.2 | 13.0 | 15.1 | 14.3 | 6.6 | 5.9 | n/a | 5.4 |
| | Adjusted | | | | | | | | | n/a | |
| Barclays US LLC | Original | 13.1 | 11.2 | 15.7 | 13.7 | 18.8 | 16.0 | 8.2 | 7.3 | n/a | 5.9 |
| | Adjusted | | | | | | | | | n/a | |
| Capital One Financial Corporation | Original | 10.3 | 8.2 | 11.8 | 9.6 | 14.4 | 12.0 | 9.9 | 8.1 | n/a | 6.9 |
| | Adjusted | | | | | | | | | n/a | |
| Citigroup Inc. | Original | 13.0 | 9.3 | 14.5 | 10.8 | 17.8 | 13.7 | 8.8 | 6.5 | n/a | 5.0 |
| | Adjusted | | | | | | | | | n/a | |
| Credit Suisse Holdings (USA), Inc. ² | Original | 24.7 | 19.6 | 24.7 | 20.2 | 24.8 | 20.2 | 7.3 | 7.9 | n/a | 7.7 |
| | Adjusted | | | | | | | | | n/a | |
| DB USA Corporation | Original | 16.5 | 13.3 | 25.9 | 22.2 | 25.9 | 22.4 | 7.2 | 6.0 | n/a | 5.5 |
| | Adjusted | | | | | | | | | n/a | |
| The Goldman Sachs Group, Inc. | Original | 12.1 | 8.2 | 14.1 | 10.0 | 16.8 | 12.5 | 8.4 | 6.0 | n/a | 4.2 |
| | Adjusted | 12.1 | 8.3 | 14.1 | 10.2 | 16.8 | 12.6 | 8.4 | 6.1 | n/a | 4.2 |
| HSBC North America Holdings Inc. | Original | 15.5 | 10.6 | 18.3 | 12.2 | 22.8 | 15.2 | 8.9 | 5.8 | n/a | 4.5 |
| | Adjusted | | | | | | | | | n/a | |
| JPMorgan Chase & Co. | Original | 12.2 | 7.9 | 13.9 | 9.5 | 15.9 | 11.5 | 8.3 | 5.6 | n/a | 4.4 |
| | Adjusted | 12.2 | 8.0 | 13.9 | 9.9 | 15.9 | 11.8 | 8.3 | 5.8 | n/a | 4.6 |
| Morgan Stanley | Original | 16.5 | 10.0 | 18.9 | 12.4 | 21.7 | 14.7 | 8.3 | 5.5 | n/a | 4.2 |
| | Adjusted | 16.5 | 10.5 | 18.9 | 13.0 | 21.7 | 15.2 | 8.3 | 5.7 | n/a | 4.4 |
| Northern Trust Corporation | Original | 12.6 | 9.6 | 13.8 | 10.8 | 15.8 | 12.8 | 7.8 | 5.9 | n/a | 5.2 |
| | Adjusted | | | | | | | | | n/a | |
| The PNC Financial Services Group, Inc. | Original | 10.4 | 7.9 | 11.6 | 9.3 | 13.7 | 11.2 | 9.9 | 7.9 | n/a | 6.6 |
| | Adjusted | | | | | | | | | n/a | |
| State Street Corporation | Original | 11.9 | 8.4 | 15.0 | 11.9 | 16.0 | 12.6 | 7.3 | 5.4 | n/a | 4.8 |
| | Adjusted | | | | | | | | | n/a | |
| TD Group US Holdings LLC | Original | 16.0 | 13.2 | 16.0 | 13.2 | 17.0 | 14.2 | 8.8 | 7.4 | n/a | 6.6 |
| | Adjusted | | | | | | | | | n/a | |
| U.S. Bancorp | Original | 9.3 | 7.7 | 10.8 | 9.3 | 12.9 | 11.1 | 8.9 | 7.6 | n/a | 6.1 |
| | Adjusted | | | | | | | | | n/a | |
| Wells Fargo & Company | Original | 12.3 | 9.4 | 14.1 | 11.0 | 17.5 | 13.7 | 9.4 | 7.2 | n/a | 6.1 |
| | Adjusted | | | | | | | | | n/a | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1. The minimum capital ratios do not necessarily occur in the same quarter.

¹ The supplementary leverage ratio is calculated only for firms subject to the advanced approaches.

² The minimum and ending leverage ratios and supplementary leverage ratios for Credit Suisse Holdings (USA), Inc. reflect an adjustment to average consolidated assets and total leverage exposure, respectively, to account for asset migrations completed at the end of 2017:Q4.

n/a Not applicable.

Source: Federal Reserve estimates in the adverse scenario.

Required minimum capital ratios in CCAR 2018 for advanced approaches firms (percent)

| Regulatory ratio | Minimum |
|------------------------------------|---------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 capital ratio | 6.0 |
| Total capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed. Firms subject to the advanced approaches are required to maintain a supplementary leverage ratio above 3 percent for quarters corresponding to 2018:Q1 to 2020:Q1. See 12 CFR 225.8(c)(3) and 12 CFR 225.8(d)(8).

Table 7.B. Projected minimum regulatory capital ratios in the adverse scenario, 2018:Q1 to 2020:Q1: Non-advanced approaches firms

Percent

| Firm | Capital actions | Common equity tier 1 capital ratio | | Tier 1 capital ratio | | Total capital ratio | | Tier 1 leverage ratio | |
|------------------------------------|-----------------|------------------------------------|-------------------|----------------------|-------------------|---------------------|-------------------|-----------------------|-------------------|
| | | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum | Actual 2017:Q4 | Projected minimum |
| Ally Financial Inc. | Original | 9.5 | 6.4 | 11.2 | 8.0 | 12.9 | 10.0 | 9.5 | 6.6 |
| | Adjusted | | | | | | | | |
| BB&T Corporation | Original | 10.2 | 7.4 | 11.9 | 9.0 | 13.9 | 11.0 | 9.9 | 7.3 |
| | Adjusted | | | | | | | | |
| BBVA Compass Bancshares, Inc. | Original | 11.8 | 9.7 | 12.1 | 10.0 | 14.4 | 12.2 | 10.0 | 7.9 |
| | Adjusted | | | | | | | | |
| BMO Financial Corp. | Original | 12.1 | 9.9 | 12.6 | 10.6 | 15.3 | 13.4 | 9.8 | 7.9 |
| | Adjusted | | | | | | | | |
| BNP Paribas USA, Inc. | Original | 12.4 | 10.0 | 12.8 | 10.5 | 15.0 | 12.9 | 9.3 | 7.4 |
| | Adjusted | | | | | | | | |
| Citizens Financial Group, Inc. | Original | 11.2 | 7.1 | 11.4 | 8.3 | 13.9 | 10.6 | 10.0 | 7.1 |
| | Adjusted | | | | | | | | |
| Discover Financial Services | Original | 11.6 | 8.5 | 12.3 | 9.2 | 13.8 | 11.0 | 10.8 | 8.0 |
| | Adjusted | | | | | | | | |
| Fifth Third Bancorp | Original | 10.6 | 7.4 | 11.7 | 8.6 | 15.2 | 11.7 | 10.0 | 7.2 |
| | Adjusted | | | | | | | | |
| Huntington Bancshares Incorporated | Original | 10.0 | 6.8 | 11.3 | 8.2 | 13.4 | 10.4 | 9.1 | 6.4 |
| | Adjusted | | | | | | | | |
| KeyCorp | Original | 10.2 | 6.4 | 11.0 | 7.7 | 12.9 | 9.4 | 9.7 | 6.6 |
| | Adjusted | 10.2 | 6.5 | 11.0 | 7.8 | 12.9 | 9.5 | 9.7 | 6.7 |
| M&T Bank Corporation | Original | 11.0 | 6.3 | 12.3 | 7.5 | 14.8 | 9.7 | 10.3 | 6.1 |
| | Adjusted | 11.0 | 7.3 | 12.3 | 8.5 | 14.8 | 10.6 | 10.3 | 6.9 |
| MUFG Americas Holdings Corporation | Original | 16.3 | 12.5 | 16.3 | 12.5 | 17.8 | 13.3 | 10.1 | 7.5 |
| | Adjusted | | | | | | | | |
| RBC USA Holdco Corporation | Original | 15.6 | 13.4 | 15.6 | 13.4 | 16.8 | 14.4 | 7.9 | 7.3 |
| | Adjusted | | | | | | | | |
| Regions Financial Corporation | Original | 11.1 | 6.9 | 11.9 | 8.4 | 13.8 | 10.4 | 10.0 | 7.0 |
| | Adjusted | | | | | | | | |
| Santander Holdings USA, Inc. | Original | 16.4 | 16.5 | 17.8 | 17.7 | 19.5 | 19.2 | 14.2 | 13.8 |
| | Adjusted | | | | | | | | |
| SunTrust Banks, Inc. | Original | 9.7 | 6.4 | 11.2 | 7.9 | 13.1 | 10.0 | 9.8 | 6.8 |
| | Adjusted | | | | | | | | |
| UBS Americas Holding LLC | Original | 21.9 | 17.6 | 24.3 | 21.8 | 25.8 | 23.5 | 8.9 | 7.9 |
| | Adjusted | | | | | | | | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by a firm after reviewing the Federal Reserve's stress test. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1. The minimum capital ratios do not necessarily occur in the same quarter.

Source: Federal Reserve estimates in the adverse scenario.

Required minimum capital ratios in CCAR 2018 for other firms (percent)

| Regulatory ratio | Minimum |
|------------------------------------|---------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 capital ratio | 6.0 |
| Total capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Qualitative Assessment Framework, Process, and Summary of Results

Overview of Qualitative Assessment Framework

In addition to the quantitative assessment of each firm's capital adequacy discussed above, the Federal Reserve reviewed capital plans submitted by the LISCC and large and complex firms to assess the strength of each firm's capital planning practices.

In the qualitative assessment, supervisors focus on the firms' analyses and practices used to determine the amount and composition of capital needed to continue to lend to households and businesses throughout a period of severe stress. In doing so, the Federal Reserve evaluates the comprehensiveness and reasonableness of a firm's capital plan; the reasonableness of the assumptions and analysis underlying the plan, including the extent to which it captures and addresses potential risks stemming from firmwide activities; and the robustness of the firm's capital planning process.¹⁹ Where applicable, the assessment leverages existing supervisory information about each firm, such as supervisory findings and information from examinations conducted throughout the year. Effective capital planning appropriately accounts for firmwide risks and is subject to effective oversight. The Federal Reserve's qualitative assessment of capital plans focuses on the extent to which each firm's analyses supporting its capital plan appropriately capture the specific risks and vulnerabilities faced by the firm under stress. Specifically, the Federal Reserve evaluates how each firm identifies, measures, and determines capital needs for its material risks under both expected and stressful conditions and whether the analyses and practices used provide a reasonable basis for its board of directors to make sound capital planning decisions.

Guidance published in December 2015 provides further supervisory expectations for capital planning for

¹⁹ CFR 225.8(f)(1).

firms that are subject to the CCAR qualitative assessment.²⁰ The letter explains that the Federal Reserve's expectations for capital planning processes are tailored based on the size, scope of operations, activities, and systemic importance of the firm. In particular, the Federal Reserve has heightened expectations for LISCC firms and expects them to have the most sophisticated, comprehensive, and robust capital planning processes.

The Qualitative Assessment Process

For LISCC and large and complex firms, CCAR's qualitative assessment is the culmination of three supervisory activities that evaluate whether firms have sound practices and analyses for determining their capital needs on a forward-looking basis:

1. assessment of the underlying analyses and support for firms' annual capital plan submissions,
2. monitoring of firms' remediation of outstanding supervisory findings related to capital planning, and
3. execution of targeted horizontal exams pertaining to capital planning undertaken throughout the year.²¹

As explained in more detail below, these three evaluations are conducted at different times throughout a given year and together allow the Federal Reserve to gain a comprehensive view into six areas critical to sound capital planning: (1) governance, (2) risk management, (3) internal controls, (4) capital policies, (5) scenario design, and (6) projection methodolo-

²⁰ See SR Letter 15-18, "Federal Reserve Assessment of Capital Planning and Positions for LISCC Firms and Large and Complex Firms," December 18, 2015, www.federalreserve.gov/supervisionreg/srletters/sr1518.htm.

²¹ Horizontal examinations are assessments of a common area or practice (such as internal audit) across multiple firms by a coordinated team of examiners.

Box 3. Scope of CCAR 2018 Qualitative Assessment

The CCAR 2018 qualitative assessment was focused more narrowly than in past years. The 2018 assessment focused on identification of material risks, firms’ internal scenario design and consideration of idiosyncratic risk, and certain stress loss and revenue estimation practices, summarized in table A. Firms were only required to submit documentation for those elements in the in-scope areas. The more targeted

scope of review reduced the burden of submitting supporting documentation and required fewer meetings between examiners and firm management than in previous years. In addition, the narrower focus of the assessment allowed examiners to spend more time testing the assumptions and analysis underlying firms’ capital plans.

Table A. Scope of CCAR 2018 qualitative assessment

| Areas | Exposure types | | | | | |
|--|--|---|--------------------------|--|---|---------------------------------|
| | Retail credit risk | Wholesale credit risk | Counterparty credit risk | Trading risk | Securities and net interest income | Non-interest income and expense |
| Risk management | All | All | All | All | All | All |
| Internal controls—model validation and independent review of estimation approaches | (1) Credit cards; and (2) automobile loans | (1) Commercial & industrial loans and other commercial loans and leases held for investment; and (2) commercial & industrial loans, other commercial loans and leases, and commercial real estate loans held-for-sale | All | (1) Interest rate products; (2) foreign exchange products; (3) equities; and (4) commercial mortgage-backed securities | (1) Credit cards; (2) commercial & industrial loans; (3) all deposit products; and (4) securities loss estimation | Sales and trading |
| Incorporating stressful conditions and events | All | All | All | All | All | All |
| Estimating impact on capital positions | (1) Credit cards; and (2) automobile loans | (1) Commercial & industrial loans and other commercial loans and leases held for investment; and (2) commercial & industrial loans, other commercial loans and leases, and commercial real estate loans held-for-sale | All | (1) Interest rate products; (2) foreign exchange products; (3) equities; and (4) commercial mortgage-backed securities | (1) Credit cards; (2) commercial & industrial loans; (3) all deposit products; and (4) securities loss estimation | Sales and trading |

gies.²² See box 4 for explanations of these areas and examples of past deficiencies.

Assessment of Capital Plan Submissions

In April of each year as a part of the CCAR exercise, firms submit to the Federal Reserve capital plans that include detailed descriptions of the firms’ capital planning practices and underlying analyses, including descriptions of their internal processes for assessing capital adequacy and their policies governing capital actions. Those plans are then assessed by subject matter experts from across the Federal

Reserve System over a three-month period. The assessment is also informed by related supervisory work conducted throughout the year and remediation of outstanding capital planning-related supervisory findings.

Two groups of supervisors—dedicated supervisory teams (DSTs) and horizontal evaluation teams (HETs)—conduct an initial assessment of each firm’s capital plan submission. DSTs, which are composed of Federal Reserve staff that focus on a single firm, assess the adequacy of firms’ capital planning practices related to governance, risk management, internal controls, and scenario design. HETs are composed of Federal Reserve staff that are not

²² Ibid.

assigned to a specific financial institution for purposes of the CCAR annual exercise but instead focus on the examination of practices across multiple firms. Some HETs assess the reasonableness of firms' stressed loss, revenue, and expense estimation approaches and the governance and controls around those approaches. Other HETs, such as the capital planning review team, work closely with DSTs to provide a horizontal assessment across the DSTs' areas of focus.

The DST and HET assessments consider whether a firm's capital planning practices allow it to reliably estimate its capital needs on a forward-looking basis, given dynamic changes that can occur to a firm's risk profile. These assessments are based on previously articulated supervisory guidance and expectations. The horizontal element of the exercise assists the Federal Reserve in consistently applying its supervisory expectations to its assessment of each firm's capital planning practices.

After this initial assessment, the DSTs and HETs rate each firm's practices in each of the six areas noted above. These ratings, which indicate the extent to which a firm's capital planning practices meet previously communicated supervisory expectations, are used to determine the nature and severity of supervisory feedback. The initial supervisory assessments are subject to review by a national committee comprising senior staff from across the Federal Reserve System that seek to confirm that

- evaluations are aligned with the supervisory expectations communicated to the industry;
- evaluations are well supported and are consistently applied across firms accounting for their size and complexity; and
- assessments, as reflected in the ratings, are appropriately calibrated to the materiality of the supervisory concern.

This committee also groups firms based on the ratings for each assessment area, with consideration of the firms' individual risk profiles. The groupings assist the Federal Reserve in facilitating the consistent application of supervisory guidance across firms. However, the qualitative assessment of a firm's capital plan is based on an absolute assessment of an individual firm's capital planning practices relative to the Federal Reserve's expectations as set forth in SR Letter 15-18 and not on comparative

groupings. As such, a low grouping is not, in and of itself, a reason for an objection to a capital plan.

The DSTs formulate a recommendation to object or not object to a firm's capital plan based on the combined assessment, after extensive review by the national committee. The LISCC's Operating Committee, which comprises senior staff from across the Federal Reserve System, then reviews and presents its own recommendation for each LISCC firm to the director of the Board's Division of Supervision and Regulation.²³ Reserve Banks responsible for the supervision of large and complex firms that are not LISCC firms make recommendations with regard to those firms, after review by a separate committee of senior staff. The director makes the final recommendations, with supervisory findings, to the Board of Governors, which makes the final decision whether to object to a firm's capital plan.

Objections on qualitative grounds can arise for reasons including, but not limited to

- unresolved material supervisory issues;
- inappropriate assumptions and analyses underlying a firm's capital plan; or
- inadequate governance and internal controls, risk management and risk identification in support of a firm's capital planning practices.²⁴

Communication of Feedback

Soon after the completion of the CCAR exercise, whether a firm's capital plan is objected to or not, the Federal Reserve sends a letter to each firm, noting areas where the firm's capital planning analyses and processes meet supervisory expectations, or exhibit weaknesses, and actions the firms must take to address any weaknesses. Each firm is required to submit a plan detailing how it will address any identified weakness, and supervisors then assess whether those plans are likely to address the cited weaknesses in a reasonable period of time. The Federal Reserve

²³ See SR Letter 15-7. "Governance Structure of the Large Institution Supervision Coordinating Committee (LISCC) Supervisory Program," April 17, 2015, www.federalreserve.gov/supervisionreg/srletters/sr1507.htm.

²⁴ For further information on the qualitative grounds upon which capital plans may be objected, see "Box 2. Considerations for Capital Plan Qualitative Assessments" of Board of Governors of the Federal Reserve System, *Comprehensive Capital Analysis and Review 2016: Assessment Framework and Results* (Washington: Board of Governors, June 2016), 9, www.federalreserve.gov/newsevents/pressreleases/files/bcreg20160629a1.pdf.

Box 4. The Importance of Capital Planning and Examples of Historical Deficiencies

Capital is central to a firm's ability to absorb unexpected losses and continue to lend to creditworthy businesses and consumers in times of stress. Firms must have in place sound capital planning practices that allow them to reliably determine their expected capital needs under stress on a forward-looking basis. This allows firms' boards of directors to make informed decisions about capital actions. The practices that are important for sound capital planning are also foundational to a firm's broader risk identification, measurement, and management frameworks.

The emphasis on strong capital planning practices is a direct response to many of the critical shortcomings that were exposed by the financial crisis and hindered firms' ability to effectively manage risk in the face of financial stress. For example, during and immediately following the crisis, a number of firms had significant problems identifying and measuring their risks, which undermined their ability to determine their capital needs. Some of the firms were unable to aggregate their total exposure to their major counterparties and lacked ready access to basic information about the location and value of the collateral they held.

As noted earlier, the Federal Reserve focuses on six key areas for capital planning when assessing a firm's capital planning processes: governance, risk management, internal controls, capital policies, scenario design, and projection methodologies. This box discusses why each area is essential to capital planning and gives examples of historical deficiencies at firms. The deficiencies described in these examples, standing alone, did not result in a qualitative objection. Firms that received qualitative objections in past CCAR cycles generally had multiple deficiencies in one or more areas of capital planning.

1. Governance

Strong governance in capital planning requires a firm's senior management to design and oversee its capital planning process and its board of directors to periodically review and approve that process. In doing so, senior management should make informed recommendations to the board of directors regarding a firm's capital planning and capital adequacy. These recommendations should have sound analytical support and take into account the expectations of key stakeholders, including shareholders, rating agencies, counterparties, depositors, creditors, and supervisors. In order to make these recommendations, senior management should design and oversee the firm's capital planning process—including its use of models and other estimation approaches—as well as an independent review framework that identifies weaknesses within the capital planning process.

It is the responsibility of the board of directors to ensure that a firm's capital plan is consistent with the firm's strategic direction and its risk appetite. A common element of deficient capital plans has been the failure of management to ensure that the analyses underlying the firm's capital plan were reliable or to accurately communicate the firm's full capital planning practices—including weaknesses therein—to the firm's board of directors.

Example: A firm was found to have deficient governance over capital planning because its senior management presented and its board of directors approved a capital plan that did not accurately represent the firm's expected financial condition or account for the material risks it faced. This resulted from the firm's management team failing to effectively account in the capital plan for increased risks stemming from weakened credit underwriting standards in connection with its most material portfolios, despite learning of those risks and related underestimation of their reserves shortly before their capital plan was submitted to the Federal Reserve. This occurrence raised significant concerns about management's oversight of the firm's capital planning process and, in turn, the reliability of the grounds upon which the firm's board of directors made capital decisions.

2. Risk Management

A firm's risk management infrastructure should identify, measure, and assess its material risks, including specifically how they may evolve under stress, and should provide a strong foundation for capital planning. A firm's risk identification process should include a comprehensive assessment of risks stemming from its unique business activities and associated exposures. The risk identification process should be dynamic and comprehensive, and drive the firm's capital adequacy analysis. Sound risk measurement processes inform a firm's senior management and board of directors about the size and risk characteristics of exposures faced by the firm under both normal and stressful operating conditions, thereby allowing the firm's leadership to make well-supported decisions about capital needs under stress.

Example: A firm's risk identification process was found to be inadequate for capital planning purposes because it was not integrated with the process used to develop the firm's capital plan. While the firm had a process to identify its material risks, these risks were not included consistently in the firm's stress scenarios or represented in its revenue and loss estimation approaches. As a result, material risks identified by the firm were not factored into the determination of its capital needs under stress.

(continued on next page)

Box 4. The Importance of Capital Planning and Examples of Historical Deficiencies (*continued*)

3. Internal Controls

A firm's internal control framework supports its entire capital planning process. A sound internal control framework should have (a) policies and procedures that support consistent and repeatable processes, (b) validation of estimation methods for suitability, (c) reliable data and information systems, and (d) an internal audit function that independently evaluates the efficacy of the capital planning process. A sound internal control framework helps ensure that all aspects of the capital planning process are functioning as designed and result in sound assessments of the firm's capital needs.

Example: A firm's internal controls were found to be inadequate because the process for estimating total losses was highly manual, without appropriate controls. This made it difficult to compile and verify final results, and led to fundamental errors in the firm's capital plan. This weak control environment rendered the firm's capital plan unreliable and led to its board of directors making capital distribution decisions based on incorrect information.

4. Capital Policy

A capital policy is a firm's written description of the principles and guidelines used for capital planning, issuance, usage, and distributions. The capital policy should reflect a number of factors, including the firm's business strategy, risk appetite, organizational structure, governance structure, post-stress capital goals, and real-time targeted capital levels. It should also establish the actions the firm will take in the event of breaching a post-stress capital goal, real-time targeted capital level, or early warning metric. A sound capital policy underpins the creation of post-stress capital goals that are aligned with a firm's risk appetite and risk profile. It is also critical to a firm's ability to appropriately manage its capital adequacy under normal circumstances and continue to be able to lend during times of stress. Prior to the crisis, most firms did not have forward-looking capital policies to guide their response to deteriorating financial conditions.

Example: A firm was found to have a deficient capital policy because the policy lacked detail in critical areas. The policy did not establish capital limits that were supported by forward-looking analysis of the firm's risks or considered the capital the firm needed to maintain the confidence of its counterparties. The capital policy also did not set forth the actions the firm could take to improve its capital position. These weaknesses inhibited the firm's senior management and board of directors from proactively addressing capital shortfalls.

5. Scenario Design

Scenario design entails creating a hypothetical economic environment over a specific period of time, including both a narrative of the situation and paths of economic variables that relate to the scenario. Well-designed scenarios should incorporate appropriately stressful conditions and events that could adversely affect a firm's capital adequacy. Firm-specific scenarios should reflect the specific vulnerabilities of the firm and directly link to the firm's risk-identification process and associated risk assessment. Scenario design is essential to testing the range of potential outcomes a firm could face in stress and contributes to informed capital planning processes.

Example: A firm's scenario design process was found to be inadequate because it did not incorporate its unique risks and business activities into its stress scenario design. The firm was overly reliant upon events from the financial crisis in designing its stress scenarios, despite material changes in its risk profile and business mix since that time. As a result, this process resulted in a stress scenario that was not particularly stressful or applicable to the firm in its current state and, therefore, did not provide a useful means of determining capital adequacy.

6. Projection Methodologies

Forward-looking capital planning requires a firm to make projections of its future capital needs. In doing so, a firm should estimate losses, revenues, expenses, and capital using a sound method that relates macroeconomic and other risk factors to its projections. The firm should be able to identify the manner in which key variables, factors, and events in a scenario affect losses, revenue, expenses, and capital over the planning horizon. Sound projection methodologies allow a firm's senior management and board of directors to make appropriate, informed decisions regarding the firm's capitalization. Deficient projection methodologies may also be evidence of weak internal controls, such as model risk management.

Example: A firm's capital plan was found to be deficient because the models used to estimate losses for one of the firm's most material portfolios did not sufficiently capture relevant risk drivers, were based on unsupported assumptions, and used very limited data. The resulting models were not sensitive to the firm's risk characteristics and scenario conditions. These weaknesses raised significant concerns about the reliability of these methodologies and the loss estimates resulting from them. As a result, management of the firm was unable to provide reliable loss projections on a major portfolio to its board of directors, and the board of directors was unable to make informed decisions about capital adequacy at the firm.

then communicates its evaluation of the action plans to the firm. In this way, the feedback letters serve as a guide for firms and supervisors to develop a common understanding of how supervisory concerns will be remediated.

Monitoring Outstanding Findings

DSTs and HETs monitor each firm's progress in remediating outstanding supervisory findings consistent with the firm's remediation plan. Any resulting concerns are communicated to firms on an ongoing basis so that changes, if needed, can be made by the firm before the next CCAR exercise. The annual process is meant to give firms regular feedback so they know the issues they face—before, during, and after the CCAR qualitative assessment—and can make improvements throughout the year.

Horizontal Examinations

Horizontal examinations are assessments of a common area or practice (such as internal audit) across multiple firms by a coordinated team of examiners. Throughout the year, the Federal Reserve conducts horizontal examinations aimed at assessing whether firms have sound capital planning practices in place to enable them to reliably determine their capital needs under expected and stressful conditions. The focus of a given year's capital planning horizontal examinations are determined in the fall of each year, and findings from the exams serve as key inputs for the annual CCAR qualitative assessment.

Qualitative Assessment Results

The Federal Reserve objected to the capital plan of DB USA Corporation on qualitative grounds based on material weaknesses in capital planning.

Qualitative Assessment Results

The qualitative assessment conducted as part of CCAR 2018 found that most firms either meet or are close to meeting the Federal Reserve's supervisory expectations for capital planning. In particular, most firms' revenue and loss estimation approaches have matured and generally result in credible estimates that inform capital adequacy assessments. These advances have resulted from those firms improving the methods they use to identify their unique risks,

using sound practices for identifying and addressing model deficiencies, and appropriately relying upon the results of capital stress testing to evaluate their capital positions on a forward-looking basis.

This year's qualitative assessment revealed a number of trends in capital planning practices, including the following:

- Certain factors, including changing market dynamics, lack of access to relevant data, and weak judgement-based estimation approaches, make it difficult for firms to reliably forecast stressed losses or revenues in certain areas, such as credit cards, auto loans, and revenues from certain business lines. Some firms are able to use appropriate techniques to address these deficiencies, while others struggle to do so.
- Several firms with trading portfolios purchased large trading positions to offset the losses arising from the instantaneous market shock. This practice can raise concerns if the risks arising from these strategies, such as counterparties' willingness to make such positions available during periods of market stress, are not sufficiently analyzed, represented in the firms' capital plans, or conveyed to their boards of directors.
- In many instances, firms' internal controls around capital planning continue to fall below supervisory expectations for various reasons, including insufficient investment in information systems and data management efforts, poorly constructed and/or executed capital planning audits, and ineffective model risk management functions.

Reasons for Qualitative Objection

The Board of Governors objected to the capital plan of DB USA Corporation because of widespread and critical deficiencies across the firm's capital planning practices. Material weaknesses were identified in data capabilities and controls supporting the firm's capital planning process; in approaches and assumptions used to forecast revenues and losses arising from many of its key business lines and exposures under stress; and in the firm's risk management functions, including model risk management and internal audit. Together, these weaknesses raise concerns about DB USA's ability to effectively determine its capital needs on a forward-looking basis.

Process and Requirements after CCAR 2018

Execution of Capital Plan and Consequences of a Federal Reserve Objection to a Plan

The Federal Reserve evaluates planned capital actions for the full nine-quarter planning horizon to better understand each firm's longer-term capital management strategy and to assess post-stress capital levels over the full planning horizon.²⁵ While the nine-quarter planning horizon reflected in the 2018 capital plans extends through the beginning of 2020, the Federal Reserve's decision to object or not object to firms' planned capital actions is carried out annually and applies only to the four quarters following the disclosure of results. Therefore, the Federal Reserve's decisions with regard to planned capital distributions in CCAR 2018 will apply from the beginning of the third quarter of 2018 through the end of the second quarter of 2019.

When the Federal Reserve objects to a firm's capital plan, the firm may not make any capital distribution unless expressly permitted by the Federal Reserve.²⁶ For those firms that did not receive an objection to their capital plans, the capital plan rule provides that a firm generally must request prior approval of a capital distribution if the dollar amount of the capital distribution will exceed the amount described in the capital plan for which a non-objection was issued (gross distribution limit).²⁷

In addition, a firm generally must request the Board's non-objection for capital distributions

²⁵ See Board of Governors of the Federal Reserve System, *Comprehensive Capital Analysis and Review 2018 Summary Instructions for LISC and Large and Complex Firms* (Washington: Board of Governors, February 2018), www.federalreserve.gov/newsevents/pressreleases/files/bcreg20180201a2.pdf.

²⁶ See 12 CFR 225.8(f)(2)(iv).

²⁷ A firm is not required to provide prior notice and seek approval for distributions involving issuances of instruments that would qualify for inclusion in the numerator of regulatory capital ratios that were not included in the firm's capital plan. See 12 CFR 225.8(g)(1).

included in the firm's capital plan if the firm has issued less capital of a given class of regulatory capital instrument (net of distributions) than the firm had included in its capital plan, measured cumulatively, beginning with the third quarter of the planning horizon (the third quarter of 2018).²⁸ For example, a firm that planned to issue common stock in the fourth quarter of 2018, but issued less stock than included in its capital plan, would be prohibited from making planned common dividends, share repurchases, or both in that quarter and subsequent quarters unless and until it offsets the excess net distributions. A firm's consistent failure to issue the regulatory capital included in its plan may be indicative of shortcomings in the firm's capital planning process and may negatively influence the Federal Reserve's assessment of the firm's capital plans in future years.

Resubmissions

If a firm's capital plan was objected to, it may resubmit its plan in advance of the next CCAR exercise, but it is not required to do so.²⁹ The Federal Reserve can require a firm to resubmit its capital plan following CCAR for a number of reasons, including if there has been or will likely be a material change in the firm's risk profile, financial condition, or corporate structure; the firm's stress scenarios are no longer appropriate for the firm's business models or

²⁸ The classes of regulatory capital instruments are common equity tier 1, additional tier 1, and tier 2 capital instruments, as defined in 12 CFR 217.2. Firms are not required to provide prior notice and seek approval for distributions included in their capital plans that are scheduled payments on additional tier 1 or tier 2 capital. In addition, firms are not required to provide prior notice and seek approval where the shortfall in capital issuance (net of distributions) is due to employee-directed capital issuances related to an employee stock ownership plan, a planned merger or acquisition that is no longer expected to be consummated or for which the consideration paid was lower than the projected price in the capital plan, or if aggregate excess net distributions are less than 1 percent of the firm's tier 1 capital. See 12 CFR 225.8(g)(3)(iii).

²⁹ See 12 CFR 225.8(e)(4)(ii).

portfolios; or changes in the macroeconomic outlook that could materially affect the firm's risk profile and financial condition require the use of updated scenarios.³⁰ As detailed in the capital plan rule, a firm must update and resubmit its capital plan if it deter-

³⁰ See 12 CFR 225.8(e)(4)(i)(B).

mines there has been or will be a material change in the firm's risk profile (including a material change in its business strategy or any material risk exposures), financial condition, or corporate structure since the firm adopted the capital plan.³¹

³¹ See 12 CFR 225.8(e)(4)(i)(A).

Appendix A: Disclosure Tables

These tables provide projections that represent hypothetical estimates involving an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and, where applicable,

reflect any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections. The minimum capital ratios are for the period from the first quarter of 2018 to the first quarter of 2020 and do not necessarily occur in the same quarter.

Table 1.A. Ally Financial Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|--|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.5 | 5.4 | |
| Tier 1 capital ratio | 11.2 | 7.1 | |
| Total capital ratio | 12.9 | 9.1 | |
| Tier 1 leverage ratio | 9.5 | 5.8 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

| Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018 | |
|--|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 1.B. Ally Financial Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.5 | 6.4 | |
| Tier 1 capital ratio | 11.2 | 8.0 | |
| Total capital ratio | 12.9 | 10.0 | |
| Tier 1 leverage ratio | 9.5 | 6.6 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 2.A. American Express Company

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.0 | 4.4 | 5.0 |
| Tier 1 capital ratio | 10.1 | 5.7 | 6.3 |
| Total capital ratio | 11.8 | 7.6 | 8.2 |
| Tier 1 leverage ratio | 8.6 | 4.8 | 5.3 |
| Supplementary leverage ratio | n/a | 4.1 | 4.6 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 2.B. American Express Company

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.0 | 6.6 | 7.2 |
| Tier 1 capital ratio | 10.1 | 7.9 | 8.4 |
| Total capital ratio | 11.8 | 9.7 | 10.2 |
| Tier 1 leverage ratio | 8.6 | 6.6 | 7.1 |
| Supplementary leverage ratio | n/a | 5.7 | 6.1 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 3.A. Bank of America Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.9 | 5.4 | |
| Tier 1 capital ratio | 13.4 | 7.1 | |
| Total capital ratio | 15.9 | 9.5 | |
| Tier 1 leverage ratio | 8.6 | 4.5 | |
| Supplementary leverage ratio | n/a | 3.6 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 3.B. Bank of America Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.9 | 8.1 | |
| Tier 1 capital ratio | 13.4 | 9.8 | |
| Total capital ratio | 15.9 | 11.9 | |
| Tier 1 leverage ratio | 8.6 | 6.2 | |
| Supplementary leverage ratio | n/a | 5.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 4.A. The Bank of New York Mellon Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.9 | 8.3 | |
| Tier 1 capital ratio | 14.2 | 10.5 | |
| Total capital ratio | 15.1 | 11.7 | |
| Tier 1 leverage ratio | 6.6 | 4.9 | |
| Supplementary leverage ratio | n/a | 4.5 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 4.B. The Bank of New York Mellon Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.9 | 10.9 | |
| Tier 1 capital ratio | 14.2 | 13.0 | |
| Total capital ratio | 15.1 | 14.3 | |
| Tier 1 leverage ratio | 6.6 | 5.9 | |
| Supplementary leverage ratio | n/a | 5.4 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 5.A. Barclays US LLC

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 13.1 | 9.6 | |
| Tier 1 capital ratio | 15.7 | 12.1 | |
| Total capital ratio | 18.8 | 14.8 | |
| Tier 1 leverage ratio | 8.2 | 6.5 | |
| Supplementary leverage ratio | n/a | 5.3 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 5.B. Barclays US LLC

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 13.1 | 11.2 | |
| Tier 1 capital ratio | 15.7 | 13.7 | |
| Total capital ratio | 18.8 | 16.0 | |
| Tier 1 leverage ratio | 8.2 | 7.3 | |
| Supplementary leverage ratio | n/a | 5.9 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 6.A. BB&T Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.2 | 6.0 | |
| Tier 1 capital ratio | 11.9 | 7.6 | |
| Total capital ratio | 13.9 | 10.0 | |
| Tier 1 leverage ratio | 9.9 | 6.2 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 6.B. BB&T Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.2 | 7.4 | |
| Tier 1 capital ratio | 11.9 | 9.0 | |
| Total capital ratio | 13.9 | 11.0 | |
| Tier 1 leverage ratio | 9.9 | 7.3 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 7.A. BBVA Compass Bancshares, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.8 | 7.2 | |
| Tier 1 capital ratio | 12.1 | 7.5 | |
| Total capital ratio | 14.4 | 9.9 | |
| Tier 1 leverage ratio | 10.0 | 6.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 7.B. BBVA Compass Bancshares, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.8 | 9.7 | |
| Tier 1 capital ratio | 12.1 | 10.0 | |
| Total capital ratio | 14.4 | 12.2 | |
| Tier 1 leverage ratio | 10.0 | 7.9 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

| Percent | |
|------------------------------------|---------------|
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 8.A. BMO Financial Corp.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|--|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.1 | 8.3 | |
| Tier 1 capital ratio | 12.6 | 8.9 | |
| Total capital ratio | 15.3 | 12.0 | |
| Tier 1 leverage ratio | 9.8 | 6.8 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 8.B. BMO Financial Corp.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.1 | 9.9 | |
| Tier 1 capital ratio | 12.6 | 10.6 | |
| Total capital ratio | 15.3 | 13.4 | |
| Tier 1 leverage ratio | 9.8 | 7.9 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 9.A. BNP Paribas USA, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.4 | 7.9 | |
| Tier 1 capital ratio | 12.8 | 8.4 | |
| Total capital ratio | 15.0 | 10.9 | |
| Tier 1 leverage ratio | 9.3 | 5.9 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 9.B. BNP Paribas USA, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.4 | 10.0 | |
| Tier 1 capital ratio | 12.8 | 10.5 | |
| Total capital ratio | 15.0 | 12.9 | |
| Tier 1 leverage ratio | 9.3 | 7.4 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 10.A. Capital One Financial Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.3 | 4.6 | |
| Tier 1 capital ratio | 11.8 | 6.1 | |
| Total capital ratio | 14.4 | 8.5 | |
| Tier 1 leverage ratio | 9.9 | 5.1 | |
| Supplementary leverage ratio | n/a | 4.4 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 10.B. Capital One Financial Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.3 | 8.2 | |
| Tier 1 capital ratio | 11.8 | 9.6 | |
| Total capital ratio | 14.4 | 12.0 | |
| Tier 1 leverage ratio | 9.9 | 8.1 | |
| Supplementary leverage ratio | n/a | 6.9 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 11.A. Citigroup Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 13.0 | 5.6 | |
| Tier 1 capital ratio | 14.5 | 7.2 | |
| Total capital ratio | 17.8 | 10.4 | |
| Tier 1 leverage ratio | 8.8 | 4.4 | |
| Supplementary leverage ratio | n/a | 3.4 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 11.B. Citigroup Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 13.0 | 9.3 | |
| Tier 1 capital ratio | 14.5 | 10.8 | |
| Total capital ratio | 17.8 | 13.7 | |
| Tier 1 leverage ratio | 8.8 | 6.5 | |
| Supplementary leverage ratio | n/a | 5.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 12.A. Citizens Financial Group, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.2 | 5.4 | |
| Tier 1 capital ratio | 11.4 | 6.7 | |
| Total capital ratio | 13.9 | 9.0 | |
| Tier 1 leverage ratio | 10.0 | 5.7 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

| Percent | |
|------------------------------------|---------------|
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 12.B. Citizens Financial Group, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.2 | 7.1 | |
| Tier 1 capital ratio | 11.4 | 8.3 | |
| Total capital ratio | 13.9 | 10.6 | |
| Tier 1 leverage ratio | 10.0 | 7.1 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

| Percent | |
|------------------------------------|---------------|
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 13.A. Credit Suisse Holdings (USA), Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 24.7 | 17.2 | |
| Tier 1 capital ratio | 24.7 | 17.8 | |
| Total capital ratio | 24.8 | 17.8 | |
| Tier 1 leverage ratio | 7.3 | 6.7 | |
| Supplementary leverage ratio | n/a | 6.6 | |

Note: The minimum and ending leverage ratios and supplementary leverage ratios for Credit Suisse Holdings (USA), Inc. reflect an adjustment to average consolidated assets and total leverage exposure, respectively, to account for asset migrations completed at the end of 2017:Q4. These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter. n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 13.B. Credit Suisse Holdings (USA), Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 24.7 | 19.6 | |
| Tier 1 capital ratio | 24.7 | 20.2 | |
| Total capital ratio | 24.8 | 20.2 | |
| Tier 1 leverage ratio | 7.3 | 7.9 | |
| Supplementary leverage ratio | n/a | 7.7 | |

Note: The minimum and ending leverage ratios and supplementary leverage ratios for Credit Suisse Holdings (USA), Inc. reflect an adjustment to average consolidated assets and total leverage exposure, respectively, to account for asset migrations completed at the end of 2017:Q4. These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter. n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 14.A. DB USA Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.5 | 12.2 | |
| Tier 1 capital ratio | 25.9 | 21.7 | |
| Total capital ratio | 25.9 | 22.0 | |
| Tier 1 leverage ratio | 7.2 | 5.7 | |
| Supplementary leverage ratio | n/a | 5.2 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 14.B. DB USA Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.5 | 13.3 | |
| Tier 1 capital ratio | 25.9 | 22.2 | |
| Total capital ratio | 25.9 | 22.4 | |
| Tier 1 leverage ratio | 7.2 | 6.0 | |
| Supplementary leverage ratio | n/a | 5.5 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 15.A. Discover Financial Services

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.6 | 5.8 | |
| Tier 1 capital ratio | 12.3 | 6.8 | |
| Total capital ratio | 13.8 | 8.6 | |
| Tier 1 leverage ratio | 10.8 | 6.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 15.B. Discover Financial Services

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.6 | 8.5 | |
| Tier 1 capital ratio | 12.3 | 9.2 | |
| Total capital ratio | 13.8 | 11.0 | |
| Tier 1 leverage ratio | 10.8 | 8.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 16.A. Fifth Third Bancorp

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.6 | 5.5 | |
| Tier 1 capital ratio | 11.7 | 6.9 | |
| Total capital ratio | 15.2 | 10.2 | |
| Tier 1 leverage ratio | 10.0 | 5.8 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 16.B. Fifth Third Bancorp

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.6 | 7.4 | |
| Tier 1 capital ratio | 11.7 | 8.6 | |
| Total capital ratio | 15.2 | 11.7 | |
| Tier 1 leverage ratio | 10.0 | 7.2 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 17.A. The Goldman Sachs Group, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.1 | 4.6 | 4.8 |
| Tier 1 capital ratio | 14.1 | 6.4 | 6.6 |
| Total capital ratio | 16.8 | 9.2 | 9.4 |
| Tier 1 leverage ratio | 8.4 | 3.8 | 3.9 |
| Supplementary leverage ratio | n/a | 2.6 | 2.7 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 17.B. The Goldman Sachs Group, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.1 | 8.2 | 8.3 |
| Tier 1 capital ratio | 14.1 | 10.0 | 10.2 |
| Total capital ratio | 16.8 | 12.5 | 12.6 |
| Tier 1 leverage ratio | 8.4 | 6.0 | 6.1 |
| Supplementary leverage ratio | n/a | 4.2 | 4.2 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 18.A. HSBC North America Holdings Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 15.5 | 7.8 | |
| Tier 1 capital ratio | 18.3 | 9.5 | |
| Total capital ratio | 22.8 | 13.0 | |
| Tier 1 leverage ratio | 8.9 | 4.5 | |
| Supplementary leverage ratio | n/a | 3.5 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 18.B. HSBC North America Holdings Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 15.5 | 10.6 | |
| Tier 1 capital ratio | 18.3 | 12.2 | |
| Total capital ratio | 22.8 | 15.2 | |
| Tier 1 leverage ratio | 8.9 | 5.8 | |
| Supplementary leverage ratio | n/a | 4.5 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 19.A. Huntington Bancshares Incorporated

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.0 | 5.8 | |
| Tier 1 capital ratio | 11.3 | 7.2 | |
| Total capital ratio | 13.4 | 9.8 | |
| Tier 1 leverage ratio | 9.1 | 5.7 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 19.B. Huntington Bancshares Incorporated

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.0 | 6.8 | |
| Tier 1 capital ratio | 11.3 | 8.2 | |
| Total capital ratio | 13.4 | 10.4 | |
| Tier 1 leverage ratio | 9.1 | 6.4 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 20.A. JPMorgan Chase & Co.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.2 | 4.9 | 5.0 |
| Tier 1 capital ratio | 13.9 | 6.6 | 6.9 |
| Total capital ratio | 15.9 | 8.9 | 9.2 |
| Tier 1 leverage ratio | 8.3 | 3.9 | 4.1 |
| Supplementary leverage ratio | n/a | 3.0 | 3.2 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 20.B. JPMorgan Chase & Co.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.2 | 7.9 | 8.0 |
| Tier 1 capital ratio | 13.9 | 9.5 | 9.9 |
| Total capital ratio | 15.9 | 11.5 | 11.8 |
| Tier 1 leverage ratio | 8.3 | 5.6 | 5.8 |
| Supplementary leverage ratio | n/a | 4.4 | 4.6 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 21.A. KeyCorp

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.2 | 4.6 | 4.8 |
| Tier 1 capital ratio | 11.0 | 5.9 | 6.0 |
| Total capital ratio | 12.9 | 8.2 | 8.3 |
| Tier 1 leverage ratio | 9.7 | 5.2 | 5.2 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 21.B. KeyCorp

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.2 | 6.4 | 6.5 |
| Tier 1 capital ratio | 11.0 | 7.7 | 7.8 |
| Total capital ratio | 12.9 | 9.4 | 9.5 |
| Tier 1 leverage ratio | 9.7 | 6.6 | 6.7 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 22.A. M&T Bank Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.0 | 4.0 | 4.9 |
| Tier 1 capital ratio | 12.3 | 5.2 | 6.2 |
| Total capital ratio | 14.8 | 7.5 | 8.5 |
| Tier 1 leverage ratio | 10.3 | 4.2 | 5.0 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

| Percent | |
|------------------------------------|---------------|
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 22.B. M&T Bank Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.0 | 6.3 | 7.3 |
| Tier 1 capital ratio | 12.3 | 7.5 | 8.5 |
| Total capital ratio | 14.8 | 9.7 | 10.6 |
| Tier 1 leverage ratio | 10.3 | 6.1 | 6.9 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

| Percent | |
|------------------------------------|---------------|
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 23.A. Morgan Stanley

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.5 | 5.0 | 5.5 |
| Tier 1 capital ratio | 18.9 | 7.3 | 7.7 |
| Total capital ratio | 21.7 | 10.0 | 10.4 |
| Tier 1 leverage ratio | 8.3 | 3.2 | 3.4 |
| Supplementary leverage ratio | n/a | 2.5 | 2.6 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 23.B. Morgan Stanley

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.5 | 10.0 | 10.5 |
| Tier 1 capital ratio | 18.9 | 12.4 | 13.0 |
| Total capital ratio | 21.7 | 14.7 | 15.2 |
| Tier 1 leverage ratio | 8.3 | 5.5 | 5.7 |
| Supplementary leverage ratio | n/a | 4.2 | 4.4 |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 24.A. MUFG Americas Holdings Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.3 | 10.4 | |
| Tier 1 capital ratio | 16.3 | 10.4 | |
| Total capital ratio | 17.8 | 11.7 | |
| Tier 1 leverage ratio | 10.1 | 6.3 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

| Percent | |
|------------------------------------|---------------|
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 24.B. MUFG Americas Holdings Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.3 | 12.5 | |
| Tier 1 capital ratio | 16.3 | 12.5 | |
| Total capital ratio | 17.8 | 13.3 | |
| Tier 1 leverage ratio | 10.1 | 7.5 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 25.A. Northern Trust Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.6 | 9.4 | |
| Tier 1 capital ratio | 13.8 | 10.7 | |
| Total capital ratio | 15.8 | 13.0 | |
| Tier 1 leverage ratio | 7.8 | 5.9 | |
| Supplementary leverage ratio | n/a | 5.2 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 25.B. Northern Trust Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.6 | 9.6 | |
| Tier 1 capital ratio | 13.8 | 10.8 | |
| Total capital ratio | 15.8 | 12.8 | |
| Tier 1 leverage ratio | 7.8 | 5.9 | |
| Supplementary leverage ratio | n/a | 5.2 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 26.A. The PNC Financial Services Group, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.4 | 5.3 | |
| Tier 1 capital ratio | 11.6 | 6.5 | |
| Total capital ratio | 13.7 | 9.0 | |
| Tier 1 leverage ratio | 9.9 | 5.6 | |
| Supplementary leverage ratio | n/a | 4.6 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 26.B. The PNC Financial Services Group, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 10.4 | 7.9 | |
| Tier 1 capital ratio | 11.6 | 9.3 | |
| Total capital ratio | 13.7 | 11.2 | |
| Tier 1 leverage ratio | 9.9 | 7.9 | |
| Supplementary leverage ratio | n/a | 6.6 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 27.A. RBC USA Holdco Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 15.6 | 11.2 | |
| Tier 1 capital ratio | 15.6 | 11.2 | |
| Total capital ratio | 16.8 | 12.6 | |
| Tier 1 leverage ratio | 7.9 | 6.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 27.B. RBC USA Holdco Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 15.6 | 13.4 | |
| Tier 1 capital ratio | 15.6 | 13.4 | |
| Total capital ratio | 16.8 | 14.4 | |
| Tier 1 leverage ratio | 7.9 | 7.3 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 28.A. Regions Financial Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.1 | 5.2 | |
| Tier 1 capital ratio | 11.9 | 6.9 | |
| Total capital ratio | 13.8 | 9.0 | |
| Tier 1 leverage ratio | 10.0 | 5.7 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 28.B. Regions Financial Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.1 | 6.9 | |
| Tier 1 capital ratio | 11.9 | 8.4 | |
| Total capital ratio | 13.8 | 10.4 | |
| Tier 1 leverage ratio | 10.0 | 7.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 29.A. Santander Holdings USA, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.4 | 14.8 | |
| Tier 1 capital ratio | 17.8 | 15.7 | |
| Total capital ratio | 19.5 | 17.1 | |
| Tier 1 leverage ratio | 14.2 | 12.3 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 29.B. Santander Holdings USA, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.4 | 16.5 | |
| Tier 1 capital ratio | 17.8 | 17.7 | |
| Total capital ratio | 19.5 | 19.2 | |
| Tier 1 leverage ratio | 14.2 | 13.8 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 30.A. State Street Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.9 | 4.0 | |
| Tier 1 capital ratio | 15.0 | 7.6 | |
| Total capital ratio | 16.0 | 8.7 | |
| Tier 1 leverage ratio | 7.3 | 3.5 | |
| Supplementary leverage ratio | n/a | 3.2 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 30.B. State Street Corporation

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 11.9 | 8.4 | |
| Tier 1 capital ratio | 15.0 | 11.9 | |
| Total capital ratio | 16.0 | 12.6 | |
| Tier 1 leverage ratio | 7.3 | 5.4 | |
| Supplementary leverage ratio | n/a | 4.8 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 31.A. SunTrust Banks, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.7 | 4.7 | |
| Tier 1 capital ratio | 11.2 | 6.2 | |
| Total capital ratio | 13.1 | 8.5 | |
| Tier 1 leverage ratio | 9.8 | 5.3 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 31.B. SunTrust Banks, Inc.

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.7 | 6.4 | |
| Tier 1 capital ratio | 11.2 | 7.9 | |
| Total capital ratio | 13.1 | 10.0 | |
| Tier 1 leverage ratio | 9.8 | 6.8 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 32.A. TD Group US Holdings LLC

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.0 | 10.6 | |
| Tier 1 capital ratio | 16.0 | 10.6 | |
| Total capital ratio | 17.0 | 11.9 | |
| Tier 1 leverage ratio | 8.8 | 6.0 | |
| Supplementary leverage ratio | n/a | 5.3 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 32.B. TD Group US Holdings LLC

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 16.0 | 13.2 | |
| Tier 1 capital ratio | 16.0 | 13.2 | |
| Total capital ratio | 17.0 | 14.2 | |
| Tier 1 leverage ratio | 8.8 | 7.4 | |
| Supplementary leverage ratio | n/a | 6.6 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 33.A. UBS Americas Holding LLC

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 21.9 | 16.2 | |
| Tier 1 capital ratio | 24.3 | 20.4 | |
| Total capital ratio | 25.8 | 22.7 | |
| Tier 1 leverage ratio | 8.9 | 7.4 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 33.B. UBS Americas Holding LLC

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 21.9 | 17.6 | |
| Tier 1 capital ratio | 24.3 | 21.8 | |
| Total capital ratio | 25.8 | 23.5 | |
| Tier 1 leverage ratio | 8.9 | 7.9 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.

Required minimum capital ratios for firms not subject to the advanced approaches capital framework in CCAR 2018

Percent

| Regulatory ratio | Minimum ratio |
|------------------------------------|---------------|
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 34.A. U.S. Bancorp

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.3 | 6.0 | |
| Tier 1 capital ratio | 10.8 | 7.6 | |
| Total capital ratio | 12.9 | 9.8 | |
| Tier 1 leverage ratio | 8.9 | 6.3 | |
| Supplementary leverage ratio | n/a | 5.0 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 34.B. U.S. Bancorp

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 9.3 | 7.7 | |
| Tier 1 capital ratio | 10.8 | 9.3 | |
| Total capital ratio | 12.9 | 11.1 | |
| Tier 1 leverage ratio | 8.9 | 7.6 | |
| Supplementary leverage ratio | n/a | 6.1 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 35.A. Wells Fargo & Company

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Severely adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.3 | 6.5 | |
| Tier 1 capital ratio | 14.1 | 8.1 | |
| Total capital ratio | 17.5 | 11.4 | |
| Tier 1 leverage ratio | 9.4 | 5.3 | |
| Supplementary leverage ratio | n/a | 4.5 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

Table 35.B. Wells Fargo & Company

Actual and minimum projected regulatory capital ratios, actual 2017:Q4 and projected 2018:Q1–2020:Q1

Federal Reserve estimates: Adverse scenario

| Actual 2017:Q4 and projected capital ratios through 2020:Q1 | | | |
|---|----------------|----------------------------------|----------------------------------|
| Percent | | | |
| Regulatory ratio | Actual 2017:Q4 | Minimum stressed ratios | |
| | | Original planned capital actions | Adjusted planned capital actions |
| Common equity tier 1 capital ratio | 12.3 | 9.4 | |
| Tier 1 capital ratio | 14.1 | 11.0 | |
| Total capital ratio | 17.5 | 13.7 | |
| Tier 1 leverage ratio | 9.4 | 7.2 | |
| Supplementary leverage ratio | n/a | 6.1 | |

Note: These projections represent hypothetical estimates that involve an economic outcome that is more adverse than expected. These estimates are not forecasts of capital ratios. The tables include the minimum ratios assuming the capital actions originally submitted in April 2018 by the firms in their annual capital plans and the minimum ratios incorporating any adjustments to capital distributions made by firms after reviewing the Federal Reserve's stress test projections and original planned capital distributions for those firms that did not make adjustments. The minimum capital ratios are for the period 2018:Q1 to 2020:Q1 and do not necessarily occur in the same quarter.
n/a Not applicable.

| Required minimum capital ratios for firms subject to the advanced approaches capital framework in CCAR 2018 | |
|---|---------------|
| Percent | |
| Regulatory ratio | Minimum ratio |
| Common equity tier 1 capital ratio | 4.5 |
| Tier 1 risk-based capital ratio | 6.0 |
| Total risk-based capital ratio | 8.0 |
| Tier 1 leverage ratio | 4.0 |
| Supplementary leverage ratio | 3.0 |

Note: All ratios are calculated in accordance with the transition arrangements provided in the Board's revised capital framework, issued in July 2013. Per recent technical amendments to the stress test and capital plan rules, the use of the advanced approaches risk-weighted asset calculations is indefinitely delayed.

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