2015 CCAR/DFAST results

Background

- Dodd-Frank Act stress testing (DFAST) and the Comprehensive Capital Analysis and Review (CCAR) are complementary exercises conducted by the Federal Reserve Board (FRB) to assess whether large BHCs have sufficient capital to absorb losses through stressed economic conditions.

- DFAST and CCAR results were released on March 5, 2015, and March 11, 2015, respectively. In the DFAST results, the FRB publishes its projections of stressed capital ratios based on standardized assumptions regarding capital actions. Under CCAR, the FRB's post-stress projections include firms' requests for increased capital actions (e.g., dividend increases and repurchases). This two-stage release allows firms to adjust their planned capital actions downwards based on the FRB's DFAST results before the FRB finalizes its decision on firms' capital plans.

- The CCAR results include the FRB's decision to object or not object to a capital plan submitted by a participating BHC, for either quantitative and/or qualitative reasons.

- Concurrently, between March 5 and March 20, 2015, BHCs disclose the results of their company-run stress tests, based on the supervisory-specified severely adverse scenario while using the BHCs' own internal models, processes and assumptions.

Covered companies

- Thirty-one BHCs\(^1\) with $50b or more in consolidated assets were required to participate in CCAR/DFAST 2015. Deutsche Bank Trust Corporation (DBTC) is the only new BHC participating in CCAR/DFAST 2015.

- Nine participants are in the Large Institution Supervision Coordinating Committee (LISCC) portfolio – Bank of America (BoA), BNY Mellon (BNYM), Citigroup (Citi), Deutsche Bank Trust Corporation (DBTC), Goldman Sachs (GS), JPMorgan Chase (JPMC), Morgan Stanley (MS), State Street and Wells Fargo. The FRB has heightened expectations for capital planning processes at these institutions relative to other CCAR participants because of their size and complexity.


Results

by the numbers

29 of 31

Bank holding companies (BHCs) did not receive an objection to their capital plan (this includes one conditional non-objection). In 2014, 24 of 30 firms did not receive an objection.

480bps

Aggregate industry decline in tier 1 common ratio from actuals to stress trough; 360bps decline before BHCs' requested capital actions (compared to 490bps and 390bps respectively in the 2014 results).

6.1%

Aggregate industry loan loss rate compared to 6.9% for the 2014 results.
The FRB objected to the capital plans of two BHCs (Deutsche Bank Trust Corporation and Santander Holdings), citing significant deficiencies in their capital planning processes, and determined that a third (Bank of America) had weaknesses that warranted a conditional non-objection, which allows a firm to continue with its planned capital actions subject to remediating these weaknesses by September 30, 2015.

**Stress impacts and drivers**

- **Net stress impact to capital for DFAST 2015 compared to DFAST 2014:** The aggregate tier 1 common ratio (across all 31 BHCs) is projected to decrease from an actual 11.9% in 3Q 2014 to a stress trough value of 8.3% and recovers at the end of the projection horizon (4Q 2016) to 8.4%. In DFAST 2014, the aggregate tier 1 common ratio had a lower starting point at 11.5% in 3Q 2013 and projected to decrease to a stress trough of 7.6%, recovering to 7.8% at the end of the projection horizon.2

**Range of impacts by BHC type:** Custody and trust banks (State Street, BNYM, Northern Trust and DBTC) continue to have the highest-projected stressed capital ratios as their businesses are less sensitive to the highly stressed macro scenario variables (e.g., Housing Price Index and unemployment) compared to the more credit-sensitive BHCs (e.g., those with significant consumer and commercial lending portfolios). Credit card institutions (American Express, Discover) also experience lesser capital ratio impacts given their ability to generate substantial income under stress, offsetting their high level of absolute losses. The largest Universal banks and Investment banks3 are significantly impacted by trading and counterparty losses and generally have lower stressed capital ratios than other BHC types.

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2 Tier 1 common capital ratio equals the common equity portion of tier 1 capital divided by risk-weighted assets calculated under the general risk-based capital approach.

3 Six BHCs (BoFA, Citi, JPMC, MS, GS, and Wells Fargo) are subject to both Global Market Shock and largest counterparty default. Two BHCs (State Street and BNYN) are subject only to largest counterparty default.
**Key FRB model changes**

**Capital models**

The FRB implemented the following key enhancements to regulatory capital models for DFAST 2015 to better align the supervisory capital model projections with the revised regulatory capital framework and related accounting guidance, including the following:

- Differentiating accumulated other comprehensive income (AOCI) items that are not subject to transition arrangements in the revised regulatory capital framework from those that are subject to transition.
- Refining the calculation of future taxable income, which is used to determine whether a deferred tax asset will be realizable in the future based on the type of deferred tax asset.
- Projecting changes in valuation allowances for net deferred tax assets based on the macroeconomic scenarios in response to changes in the treatment of deferred tax assets in the revised regulatory capital framework.

**Pre-provision net revenue (PPNR) models**

- Other noninterest income and expense are now modeled using a simpler approach that is designed to reduce the volatility of the results stemming from the historical volatility in the underlying income and expense items.
- Interest expense on subordinated debt is now modeled based on instrument-level information and reflects an increase in the use of more detailed data to project PPNR.

**Loss models**

- Changes to accrual loan loss models were generally incremental and did not have a large net effect on aggregate estimates.
- Changes to models for other losses were somewhat more significant, due in part to the refinement of risk factors used in selected securities models.

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**Loan losses**

- FRB modeled aggregate accrual loan losses under the severely adverse scenario are projected to be $340b across 31 BHCs compared to $366b across 30 BHCs last year.
- The nine-quarter (9Q) accrual loan loss rate was 6.1%, which was lower than 6.9% in DFAST 2014, but still more severe than any US recession since the 1930s.
- Compared to 2014, the 2015 FRB loss rates remained relatively steady across all loan types and banks.

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**Trading and counterparty losses**

- 2015 FRB methodologies/models for estimating trading and counterparty loss under the global market shock were similar to 2014, but resulting losses from global market shock at the eight BHCS³ increased by approximately 5% from 2014 levels.

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**Tier 1 common ratio decline — 3Q actuals to stress trough (bps)**

<table>
<thead>
<tr>
<th>Portfolio loss rate %</th>
<th>Results by BHC type¹</th>
<th>Aggregate results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Universal &amp; IB</td>
<td>Domestic Regional</td>
</tr>
<tr>
<td>All loan losses</td>
<td>5.4</td>
<td>3.9</td>
</tr>
<tr>
<td>First lien mortgages</td>
<td>3.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Junior liens and HELOCs</td>
<td>9.3</td>
<td>9.7</td>
</tr>
<tr>
<td>Commercial and Industrial (C&amp;I)</td>
<td>7.1</td>
<td>4.4</td>
</tr>
<tr>
<td>Commercial real estate</td>
<td>8.3</td>
<td>9.4</td>
</tr>
<tr>
<td>Credit cards</td>
<td>11.2</td>
<td>13.9</td>
</tr>
<tr>
<td>Other consumer</td>
<td>3.3</td>
<td>6.5</td>
</tr>
<tr>
<td>Other loans</td>
<td>3.1</td>
<td>2.1</td>
</tr>
</tbody>
</table>

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**In $ billion**

<table>
<thead>
<tr>
<th>2015 results</th>
<th>2014 results</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 Largest BHCs</td>
<td>102.7</td>
<td>98.1</td>
</tr>
</tbody>
</table>

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¹ Under DFAST standardized capital actions; depicts median of BHC groupings.

² For pre-provision net revenue (PPNR) models: Other noninterest income and expense are now modeled using a simpler approach that is designed to reduce the volatility of the results stemming from the historical volatility in the underlying income and expense items. Interest expense on subordinated debt is now modeled based on instrument-level information and reflects an increase in the use of more detailed data to project PPNR.

³ For trading and counterparty losses: 2015 FRB methodologies/models for estimating trading and counterparty loss under the global market shock were similar to 2014, but resulting losses from global market shock at the eight BHCS increased by approximately 5% from 2014 levels.
RWA

> Aggregate risk-weighted assets (RWAs) under the current general approach (Basel I) are projected to increase 4% over the stress horizon through business and risk profile changes, and increase a further 9% as a result of the regime change to the Basel III standardized approach. Significant drivers of RWA change are the Basel III treatments of off balance sheet exposures by which custody and universal and investment banks are disproportionately impacted.

<table>
<thead>
<tr>
<th>Risk-weighted assets in $ billions</th>
<th>4Q 2016 Current general approach (Basel I)</th>
<th>4Q 2016 Basel III standardized approach</th>
<th>Regime change difference</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All BHCs</td>
<td>8790</td>
<td>9103</td>
<td>9948</td>
<td>845</td>
</tr>
<tr>
<td>Universal bank &amp; IB</td>
<td>5907</td>
<td>6101</td>
<td>6808</td>
<td>707</td>
</tr>
<tr>
<td>Regional domestic</td>
<td>1787</td>
<td>1878</td>
<td>1927</td>
<td>49</td>
</tr>
<tr>
<td>Custody</td>
<td>301</td>
<td>309</td>
<td>364</td>
<td>54</td>
</tr>
<tr>
<td>Credit card</td>
<td>199</td>
<td>204</td>
<td>212</td>
<td>9</td>
</tr>
<tr>
<td>Regional FBO</td>
<td>596</td>
<td>612</td>
<td>638</td>
<td>26</td>
</tr>
</tbody>
</table>

PPNR

> Aggregate 9Q net revenue before provisions for loan and lease losses is projected to be $310b, or 2.1% of assets, compared to $316b, or 2.3%, in DFAST 2014.

<table>
<thead>
<tr>
<th>% of Average assets</th>
<th>Results by BHC type</th>
<th>Aggregate results</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Universal bank &amp; IB</td>
<td>Regional domestic</td>
<td>Custody</td>
</tr>
<tr>
<td>PPNR</td>
<td>1.4</td>
<td>3.3</td>
<td>2.7</td>
</tr>
</tbody>
</table>

> The combination of high losses and projected stressed PPNR at the 31 BHCs results in a projected net loss before taxes of $222.2b, or -1.5% of average assets, which is comparable to -1.6% in DFAST 2014.
Looking ahead

The FRB notes that it expects firms to continue to improve their capital planning processes across the FRB’s seven principles:

► Sound foundational risk management
► Effective loss and resource estimation methodologies
► Solid Resource - Estimation Methodologies
► Sufficient capital adequacy impact assessment
► Comprehensive Capital Policy and Capital Planning
► Robust internal controls
► Effective governance

For CCAR 2016, capital plans will be due on April 5th rather than January 5th, and the core execution period will move from Q4 to Q1.

CCAR BHCs will therefore have a one-time additional time window in 2015 to implement enhancements, relative to the 6 month period that typically follows formal FRB feedback. Firms will receive a detailed feedback letter from the FRB in the coming weeks to incorporate into their enhancement planning.

With some increased stability in the CCAR instructions and reporting requirements in recent cycles, firms’ plans should consider where enhancements can be made to modeling, data, systems and people/organizational structures to achieve a sustainable capital planning infrastructure.
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