Basel III Capital and Liquidity Frameworks

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October 8, 2015

* The views expressed are my own and do not necessarily represent the views of the Federal Reserve Bank of New York or the Federal Reserve System.
Agenda

Basel III capital and liquidity frameworks:

- Key lessons from the financial crisis
- Primers on regulatory responses
- Upcoming policy initiatives
Key Lessons from the Financial Crisis

The financial crisis exposed vulnerabilities in the financial system and the need for regulatory responses aimed at:

- Increasing the capacity of banks to absorb losses relative to risks
- Constraining leverage through a non-risk-based backstop
- Incorporating systemic and macroprudential perspectives into the capital framework
- Increasing the capacity of banks to absorb shocks to funding and constraining structural funding mismatches
- Providing greater transparency so that market participants can make more informed assessments of banks’ potential vulnerabilities to shocks
The Basel III framework agreed to by the Basel Committee on Banking Supervision (BCBS) substantially strengthens the capital and liquidity requirements for banks:

- **Risk-based capital**
  - Increases the quantity and quality of capital required

- **Leverage ratio**
  - Establishes a minimum international leverage ratio of tier 1 capital to total on-balance sheet assets and off-balance sheet exposures

- **Capital surcharges**
  - Includes a surcharge for global systemically important banks (G-SIBs)

- **Liquidity**
  - Establishes a short-term liquidity requirement to ensure sufficient high-quality liquid assets to cover net cash outflows during a 30-day stress period and a longer-term structural funding requirement

- **Public disclosure**
  - Strengthens disclosures related to capital requirements and risks

**Regulatory Response – Overview**
The risk-based capital ratios measure regulatory capital over risk-weighted assets.

- Risk-weighted assets reflect riskiness of assets and off-balance sheet exposures.

- There are different approaches to calculate risk-weighted assets:
  - Standardized approaches use supervisory risk weights.
  - Internal ratings-based/models approaches use bank estimates and models.

- Risk-based capital ratios = \( \frac{\text{Regulatory Capital}}{\text{Risk–weighted Assets (RWA)}} \)
Basel III substantially increases the going-concern capacity of banks by:

- Introducing a new measure of common equity tier 1 (CET1)
- Increasing the minimum tier 1 capital ratio requirement and imposing more stringent criteria for qualifying instruments
- Strengthening the deductions and filters applied to regulatory capital
- Establishing a capital conservation buffer to limit bonuses and capital distributions if banks fall below thresholds
- Implementing a countercyclical capital buffer to be applied in times of excessive credit growth
- Making changes to the calculation of risk-weighted assets, including revisions to the treatment of:
  - trading book assets (Basel 2.5)
  - counterparty credit exposure for derivatives and repo-style transactions
  - securitization exposures in the banking book
Primer on Risk-based Capital Ratios – Capital Components

**Common Equity Tier 1 (CET 1)**
- + Common stock issued
- + Related surplus (net of treasury stock)
- + Retained earnings
- + AOCI impact
- + Common equity tier 1 minority interest (subject to limitations)
- +/- Applicable regulatory adjustments and deductions

**Additional Tier 1 Capital**
- + Non-common equity tier 1 capital instruments (qualifying instruments only)
  - Generally non-cumulative perpetual preferred stock
- + Minority interest included in tier 1 capital (subject to limitations)
- +/- Applicable regulatory adjustments and deductions

**Tier 2 Capital**
- + Qualifying tier 2 capital
  - Generally other preferred stock
  - Subordinated debt
- + ALLL (subject to limitations)
- +/- Applicable regulatory adjustments and deductions
Primer on Leverage Ratios

- The BCBS introduced the leverage ratio to serve as a back-stop to the risk-based capital requirements
  - In the U.S. this requirement is referred to as the supplementary leverage ratio (SLR)

- The BCBS leverage ratio requires banks to hold 3% tier 1 capital against on- and off-balance sheet exposures
  - Public disclosure was required beginning 2015
  - Expected to migrate to a pillar 1 minimum ratio requirement by 2018

- In the U.S. banks also are required to meet the long-standing tier 1 leverage ratio, which captures average on-balance sheet assets in the denominator, and G-SIBs are subject to a higher SLR requirement

<table>
<thead>
<tr>
<th>U.S. Tier 1 Leverage Ratio:</th>
<th>Tier 1 Capital</th>
<th>≥ 4%</th>
</tr>
</thead>
<tbody>
<tr>
<td>On- and Off-Balance Sheet Exposures</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>BCBS Leverage Ratio/ U.S. SLR:</th>
<th>Tier 1 Capital</th>
<th>≥ 3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Balance Sheet Exposures</td>
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</table>

<table>
<thead>
<tr>
<th>U.S. Enhanced SLR:</th>
<th>Tier 1 Capital</th>
<th>≥ 5% or 6%</th>
</tr>
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<tbody>
<tr>
<td>On- and Off-Balance Sheet Exposures</td>
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</table>
The G-SIB risk-based capital surcharge establishes an additional CET1 buffer for institutions that pose the greatest systemic risk.

The buffer requirement is determined based on 12 indicators of systemic risk.

<table>
<thead>
<tr>
<th>BCBS Scoring Methodology</th>
<th>Indicator*</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Basel III Leverage Exposures</td>
<td>20%</td>
</tr>
<tr>
<td>Cross-jurisdictional activity</td>
<td>Cross-jurisdiction claims</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Cross-jurisdiction liabilities</td>
<td>10%</td>
</tr>
<tr>
<td>Interconnectedness</td>
<td>Intra-financial system assets</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Intra-financial system liabilities</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Total marketable securities</td>
<td>6.67%</td>
</tr>
<tr>
<td>Complexity</td>
<td>OTC derivatives notional</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Level 3 assets</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Trading and AFS, less HQLA</td>
<td>6.67%</td>
</tr>
<tr>
<td>Substitutability**</td>
<td>Assets under custody</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Payments</td>
<td>6.67%</td>
</tr>
<tr>
<td></td>
<td>Underwriting</td>
<td>6.67%</td>
</tr>
</tbody>
</table>

*Each indicator measured in EUR, divided by the 75 bank global sample total, measured in bps.

**Capped at 100bps.

The U.S. G-SIB rule requires G-SIBs to calculate the risk-based capital surcharge under two methods and use the higher surcharge. The two methods are:

- Method 1: the BCBS method
- Method 2: replaces the substitutability category with a short-term wholesale funding (STWF) category and increases the calibration

Estimated surcharges under Method 2 for the 8 U.S. G-SIBs range from 1.0% to 4.5% vs 1.0% to 2.5% under the BCBS methodology (Method 1).
Primer on Basel III Capital Surcharge for G-SIBs – STWF Category

- The STWF category in Method 2 of the U.S. rule explicitly links capital and liquidity whereas the Basel III framework treats capital and liquidity independently.

- The STWF components are weighted to account for funding risk.

<table>
<thead>
<tr>
<th>Short-Term Wholesale Funding (STWF) Composition</th>
<th>≤30 days or no maturity</th>
<th>31-90 days</th>
<th>91-180 days</th>
<th>181 - 365 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secured funding with level 1 asset</td>
<td>25%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Unsecured WS funding from non-financial entity</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Retail brokered deposits/sweeps</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Short positions using neither Level 1 nor 2A asset</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Secured funding with Level 2A asset</td>
<td>50%</td>
<td>25%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Covered exchange: Level 1 for Level 2A asset</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secured funding with Level 2B asset</td>
<td>75%</td>
<td>50%</td>
<td>25%</td>
<td>10%</td>
</tr>
<tr>
<td>Covered exchanges (all other)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other unsecured WS funding (financial counterparty, sub, etc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other STWF</td>
<td>100%</td>
<td>75%</td>
<td>50%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Calculated as daily average for each business day of previous calendar year from the Complex Institution Liquidity Monitoring Report (FR 2052a).

Source: US G-SIB Final Rule
The BCBS introduced the liquidity coverage ratio (LCR) in December 2010 and subsequently revised the standard in January 2013.

The LCR requires banking organizations to hold unencumbered high-quality liquid assets (e.g., UST) sufficient to cover net cash outflows during a 30-day stress scenario.

The U.S. agencies issued the final LCR rule in September 2014, and it began to phase in January 2015 (i.e., 80%).

\[
\text{LCR: } \frac{\text{Unencumbered High-quality Liquid Assets}}{\text{Net Cash Outflows over 30-day Stress Scenario}} \geq 100\%
\]
The BCBS introduced the net stable funding ratio (NSFR) in December 2010 and finalized the standard in October 2014.

The NSFR requires banking organizations to hold available stable funding (e.g., capital, long-term liabilities) for on- and off-balance sheet exposures, depending on their liquidity characteristics and residual maturities. The BCBS refers to the amount of such stable funding as “Required Stable Funding.”

The U.S. agencies are working to issue a NSFR proposal to implement the BCBS standard.

NSFR: \[
\frac{\text{Available Stable Funding}}{\text{Required Stable Funding}} \geq 100\%
\]
The BCBS undertook a review of the Pillar 3 public disclosures to determine how they could be strengthened.

The revised disclosure requirements that were published at the start of 2015 include:
- High-level principles to guide banks’ disclosures
- Fixed- and flexible-format tables and templates
- The ability to refer to other existing disclosures (i.e., “sign-post”) if criteria are met

The BCBS is undertaking follow-up work to consolidate existing disclosure requirements and introduce new ones (e.g., key metrics, standardized approach benchmarks). A consultative proposal is expected by year-end 2015.
Upcoming BCBS Policy Initiatives – Near-term

While much has been accomplished, several key regulatory initiatives remain over the near-term:

- Revised standardized approaches for credit and operational risks to address issues related to comparability and complexity

- Fundamental review of the trading book to address issues raised by Basel 2.5

- Finalization of a capital floor based on standardized approaches

- Interest rate risk in the banking book
  - The consultative proposal includes two options: pillar 1 minimum capital requirements or pillar 2 supervisory review with quantitative disclosure
Upcoming BCBS Policy Initiatives – Near-term (Continued)

- Three-year review of the BCBS G-SIB capital surcharge methodology
  - The BCBS standard notes the methodology will be reviewed every three years to capture developments in the banking sector and any progress in methods and approaches for measuring systemic importance

- Requirement for G-SIBs to have sufficient total loss absorption capacity (TLAC) to facilitate an orderly resolution process without exposing public funds to potential loss
  - The term sheet expected to be finalized by the Financial Stability Board in November 2015
The Basel Committee is undertaking a longer-term review of the structure of the regulatory capital framework, and in particular the use of internal models, to consider whether more fundamental reform is necessary. Key considerations include the following:

- costs and benefits of basing regulatory capital on internal models
- extent to which internal modelling options in the regulatory framework facilitate improved risk management in banks
- availability of alternative approaches for determining regulatory capital that reduce or remove reliance on bank-internal models while maintaining adequate risk sensitivity
- degree to which effective market discipline is inhibited by ongoing inconsistencies in bank capital ratios

In addition, as the regulatory reform package approaches finalization, the BCBS is undertaking a review of the overall coherence and calibration of the framework.

Finally, the BCBS has committed to a gradual and holistic review of the treatment of sovereign exposures.