



FEDERAL RESERVE BANK *of* NEW YORK

# Basel III Capital and Liquidity Frameworks

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*\* 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



# Regulatory Response – Overview

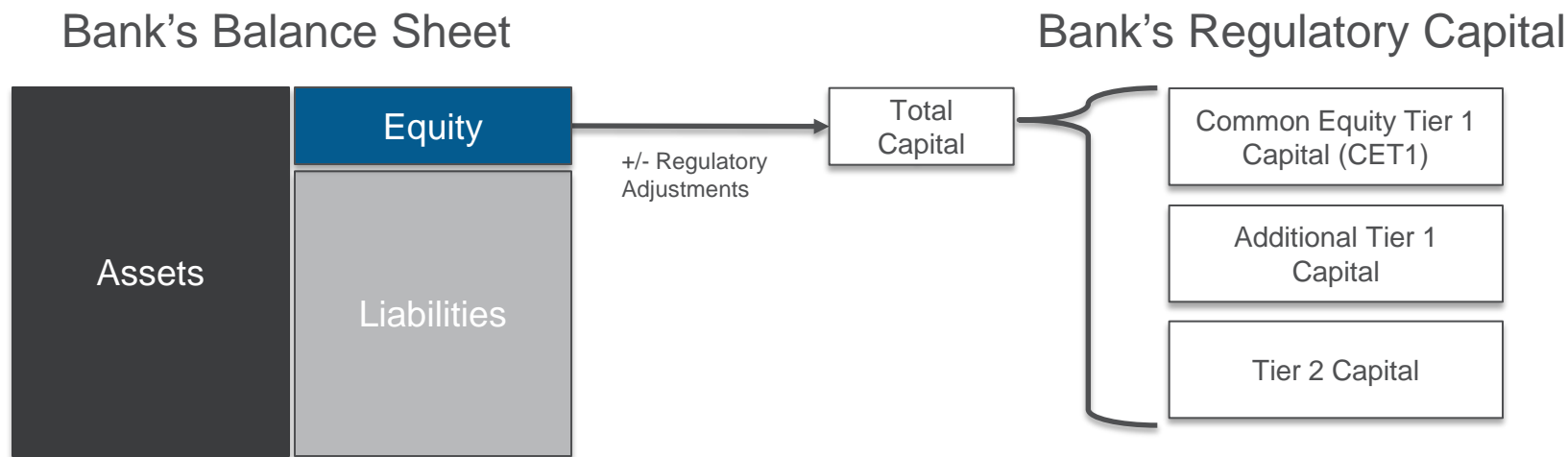
The Basel III framework agreed to by the Basel Committee on Banking Supervision (BCBS) substantially strengthens the capital and liquidity requirements for banks

- 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





# Primer on Risk-based Capital Ratios



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 = 
$$\frac{\text{Regulatory Capital}}{\text{Risk-weighted Assets (RWA)}}$$

# Primer on Risk-based Capital Ratios – Basel III Key Elements

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

U.S. Tier 1 Leverage Ratio:	$\frac{\text{Tier 1 Capital}}{\text{On- and Off-Balance Sheet Exposures}}$	$\geq 4\%$
BCBS Leverage Ratio/ U.S. SLR:	$\frac{\text{Tier 1 Capital}}{\text{On-Balance Sheet Exposures}}$	$\geq 3\%$
U.S. Enhanced SLR:	$\frac{\text{Tier 1 Capital}}{\text{On- and Off-Balance Sheet Exposures}}$	$\geq 5\% \text{ or } 6\%$





# Primer on Basel III Capital Surcharge for G-SIBs

- 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

**BCBS Scoring Methodology**

Category	Indicator*	Weight
Size	Basel III Leverage Exposures	20%
Cross-jurisdictional activity	Cross-jurisdiction claims	10%
	Cross-jurisdiction liabilities	10%
Interconnectedness	Intra-financial system assets	6.67%
	Intra-financial system liabilities	6.67%
	Total marketable securities	6.67%
Complexity	OTC derivatives notional	6.67%
	Level 3 assets	6.67%
	Trading and AFS, less HQLA	6.67%
Substitutability**	Assets under custody	6.67%
	Payments	6.67%
	Underwriting	6.67%

\*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

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

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](#)

# Primer on Basel III Liquidity Ratios – Liquidity Coverage Ratio

- 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%)

$$\text{LCR: } \frac{\text{Unencumbered High-quality Liquid Assets}}{\text{Net Cash Outflows over 30-day Stress Scenario}} \geq 100\%$$

# Primer on Basel III Liquidity Ratios – Net Stable Funding Ratio

- 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

$$\text{NSFR: } \frac{\text{Available Stable Funding}}{\text{Required Stable Funding}} \geq 100\%$$

# Primer on Basel III Disclosure Requirements

- 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

# Upcoming BCBS Policy Initiatives – Longer-term

- 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