Basel III: The New Capital Framework

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Presented by:
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• S.L. (Sam) Srinivasulu, Ph.D. is Chairman of KESDEE Inc., a financial eLearning company

• He has a PhD from the Graduate School of Business Administration, University of Michigan, Ann Arbor

• For over 25 years, he has presented several in-house and public training programs to senior financial executives in 40 countries on topics of Asset Liability Management and Risk Management

• He was invited by the U.S. Federal Reserve System to conduct Executive development programs to the supervision and regulation staff of the Federal Reserve System. This five year project was the catalyst for establishing KESDEE Inc., a financial e-Learning company (www.kesdee.com).
Summary

In July 2013, the U.S Federal Regulatory Agencies (FRB, OCC and FDIC) issued final rules for the U.S implementation of Basel III Framework.

Basel III is the global regulatory response to the financial crisis that began in 2007. Basel III incorporates several measures to strengthen the global capital framework. These include among others, more and higher quality capital, enhanced risk coverage, reducing procyclicality, promoting capital conservation and addressing systemic risk.

In addition, there are new Liquidity requirements. The U.S implementation shows the interplay of Basel III with Dodd- Frank, Community Bank Capital rules and PCA.

This presentation covers Basel III framework, the US implementation of Basel III, potential impact on financial institutions and their customers. Basel III will impact all aspects of a financial institution’s business model including volume, mix and pricing of assets, liabilities and off balance sheet items. Both corporate and individual customers will confront questions of availability, pricing and terms of credit and services.
PART I – BASEL III: THE NEW CAPITAL FRAMEWORK
Basel Variations

- BASEL I
- BASEL II
- BASEL 2.5
- BASEL III
Timeline

- **Basel I**: 1988, 1996
- **Basel II**: 2004, 2005
- **Basel 2.5**: 2009
- **Basel III**: 2011, 2013
Timeline

1988

The Capital Accord (Basel I)

1996

Amendment to the Capital Accord to Incorporate Market Risks
Timeline

- Basel II
  - 2004
  - International Convergence of Capital Measurement and Capital Standards: Revised Framework
  - 2005
  - The Application of Basel II to Trading Activities and the Treatment of Double Default Effects
Timeline

2009

- Enhancements to the Basel II framework
- Revisions to the Basel II market risk framework
- Guidelines for computing capital for incremental risk in the trading book
Timeline

Basel III

2011

A global regulatory framework for more resilient banks and banking systems: Revised version

2013

The Liquidity Coverage Ratio and liquidity risk monitoring tools
Basel I

- **Capital** \( \geq 8\% \) of Risk Weighted Assets

A Broad-brush Approach to the calculation of Risk Weighted Assets (RWA)

- Capital Requirements are not Risk Sensitive
Basel II - Pillar 1

Minimum Capital Requirements

Approaches for Calculation of Minimum capital requirements for:

- Credit risk
  - Standardized
  - Foundation IRB
  - Advanced IRB

- Operational risk
  - Basic indicator
  - Standardized
  - Advanced Measurement

- Market risk
  - Standardized
  - Internal Model
Banks should have a process for assessing their overall capital in relation to their risk profile and a strategy for maintaining their capital levels.

Supervisors should review bank’s internal capital adequacy assessments and strategies and take appropriate action if they are not satisfied with the results.
Disclosures of Risk Management:

- Credit risk, market risk, and operational risk
- Explanation of grading systems
- Details on industry sectors, counterpart types, maturity distribution, amount of impaired loans, allowance for credit losses and provisions
- Organization of credit risk management function and definitions
- Break down of portfolio by ratings (internal or external) for each segment
- Probability of Default (PD) estimates for each rating category
- Ex-post performance as an indication of quality and reliability of system
- Credit risk mitigation techniques, treatment of collateral
Basel 2.5

- Raise capital requirements for the trading book and complex securitization exposures
- A stressed value-at-risk (VaR) capital requirement
- Higher capital requirements for so-called re-securitizations in both the banking and the trading book
- Raise the standards of the Pillar 2 supervisory review process
- Strengthen Pillar 3 disclosures
Basel III

Pillar I

Pillar II

Pillar III
Basel III - Pillar 1

- Higher Capital Ratios
- Capital Conservation Buffer
- Enhanced Risk Coverage
- Countercyclical Buffers
- Leverage Ratios
- Liquidity Measures
Basel III - Pillar 2

- Firm wide governance and risk management
- Risk of off-balance sheet exposures
- Risk concentrations
- Stress Testing
- Sound compensation practices
- Valuation practices
Basel III - Pillar 3

- Revised disclosures
- Securitization exposures
- Detailed components of Regulatory capital
- Reconciliation with Accounting and explanations
A. Strengthening the global capital framework

1. Raising the quality, consistency and transparency of the capital base
2. Enhancing risk coverage
3. Supplementing the risk-based capital requirement with a leverage ratio
4. Reducing procyclicality and promoting countercyclical buffers
   - Cyclicality of the minimum requirement
   - Forward looking provisioning
   - Capital conservation
   - Excess credit growth
5. Addressing systemic risk and interconnectedness
B. Introducing a global liquidity standard

1. Liquidity Coverage Ratio
2. Net Stable Funding Ratio
3. Monitoring tools

C. Transitional arrangements

D. Scope of application
Part 1: Minimum capital requirements and buffers

I. Definition of capital

A. Components of capital
   • Elements of capital
   • Limits and minima

B. Detailed proposal
   1. Common Equity Tier 1
   2. Additional Tier 1 capital
   3. Tier 2 capital
   4. Minority interest (ie non-controlling interest) and other capital issued out of consolidated subsidiaries that is held by third parties
   5. Regulatory adjustments
   6. Disclosure requirements

C. Transitional arrangements
II. Risk Coverage

A. Counterparty credit risk

1. Revised metric to better address counterparty credit risk, credit valuation adjustments and wrong-way risk

2. Asset value correlation multiplier for large financial institutions

3. Collateralized counterparties and margin period of risk

4. Central counterparties

5. Enhanced counterparty credit risk management requirements
B. Addressing reliance on external credit ratings and minimizing cliff effects

1. Standardized inferred rating treatment for long-term exposures

2. Incentive to avoid getting exposures rated

3. Incorporation of IOSCO’s Code of Conduct Fundamentals for Credit Rating Agencies

4. “Cliff effects” arising from guarantees and credit derivatives - Credit risk mitigation (CRM)

5. Unsolicited ratings and recognition of ECAIs

III. Capital conservation buffer

A. Capital conservation best practice

B. The framework

C. Transitional arrangements
IV. Countercyclical buffer

A. Introduction
B. National countercyclical buffer requirements
C. Bank specific countercyclical buffer
D. Extension of the capital conservation buffer
E. Frequency of calculation and disclosure
F. Transitional arrangements

V. Leverage ratio

A. Rationale and objective
B. Definition and calculation of the leverage ratio
   1. Capital measure
   2. Exposure measure
C. Transitional arrangements
# Basel III: Transition Period

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital</strong></td>
<td></td>
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</tr>
<tr>
<td>Leverage Ratio</td>
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</tr>
<tr>
<td>Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015</td>
<td></td>
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<tr>
<td>Migration to Pillar 1</td>
<td></td>
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</tr>
<tr>
<td>Minimum Common Equity Capital Ratio</td>
<td>3.5%</td>
<td>4.0%</td>
<td></td>
<td>4.5%</td>
<td></td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td>Capital Conservation Buffer</td>
<td></td>
<td></td>
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<td></td>
<td>0.625%</td>
<td>1.25%</td>
<td>1.875%</td>
</tr>
<tr>
<td>Minimum common equity plus capital conservation buffer</td>
<td>3.5%</td>
<td>4.0%</td>
<td>4.5%</td>
<td>5.125%</td>
<td>5.75%</td>
<td>6.375%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Phase-in of deductions from CET1*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20%</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Minimum Tier 1 Capital</td>
<td>4.5%</td>
<td>5.5%</td>
<td></td>
<td>6.0%</td>
<td></td>
<td>6.0%</td>
<td></td>
</tr>
<tr>
<td>Minimum Total Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.0%</td>
<td></td>
<td>8.0%</td>
</tr>
<tr>
<td>Minimum Total Capital plus conservation buffer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.0%</td>
<td></td>
<td>8.625%</td>
</tr>
<tr>
<td>Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phased out over 10 year horizon beginning 2013</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity coverage ratio – minimum requirement</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net stable funding ratio</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Basel II Vs Basel III

Basel II:
- TIER1: 4%
- TIER2: 8%
- TOTAL = TIER1 + TIER2: 12%

Basel III:
- TIER1: 4.5%
- TIER2: 8%
- Countercyclical Buffer: 0 to 2.5%
- Conservation Buffer: 6%
- TOTAL = TIER1 + TIER2: 13.5%

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## Basel III: Summary

<table>
<thead>
<tr>
<th>Capital</th>
<th>Pillar 1</th>
<th>Pillar 2</th>
<th>Pillar 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Risk coverage</td>
<td>Containing leverage</td>
<td>Risk management And supervision</td>
</tr>
<tr>
<td>Capital</td>
<td>Quality and level of capital</td>
<td>Securitisations</td>
<td>Leverage ratio</td>
</tr>
<tr>
<td></td>
<td>Capital loss absorption at the point of non-viability</td>
<td>Trading book</td>
<td></td>
</tr>
<tr>
<td>All Banks</td>
<td>Capital conservation buffer</td>
<td>Counterparty credit risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Countercyclical buffer</td>
<td>Bank exposures to central counterparties (CCPs)</td>
<td></td>
</tr>
<tr>
<td>SIFIs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Basel III: Summary

<table>
<thead>
<tr>
<th>Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global liquidity standard and supervisory monitoring</td>
</tr>
<tr>
<td>Liquidity coverage ratio</td>
</tr>
<tr>
<td>Net stable funding ratio</td>
</tr>
<tr>
<td>Principles of sound liquidity risk management and supervision</td>
</tr>
<tr>
<td>Supervisory monitoring</td>
</tr>
</tbody>
</table>
KESDEE E-LEARNING BASEL III – LIQUIDITY RISK MANAGEMENT
Importance of Liquidity Risk Management

- Liquidity for a bank is its ability to fund any increases in its assets and meet out various obligations as and when they arise without incurring any unacceptable losses.

- The fundamental role of banks in the maturity transformation of short-term deposits into long-term loans exposes them to considerable amount of liquidity risk, both of an institution-specific nature and the one, which affects the markets as a whole.

- Moreover, every transaction or commitment exposes bank to a significant level of liquidity risk. Hence, it becomes very essential for banks to ensure sound liquidity risk management to meet uncertain cash flow obligations triggering due to external events and other agents' behavior. Any shortfall in liquidity at a single institution can have system-wide repercussions.
Regulatory Standards

The Basel Committee on Banking and Supervision has developed two regulatory standards, which every internationally active bank must follow at its minimum for the sound liquidity risk management on a consistent basis to address properly the issues related to liquidity risk during periods of stress.

These liquidity standards are required to be met in one single currency.

The standards and their objective are as follows:

<table>
<thead>
<tr>
<th>Standards</th>
<th>Objective for Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity coverage ratio (LCR)</td>
<td>To promote the short-term resilience of the liquidity risk profile of banks by ensuring that they have sufficient high-quality liquid assets (HQLA) to survive a significant stress scenario lasting 30 calendar days</td>
</tr>
<tr>
<td>Net stable funding ratio (NSFR)</td>
<td></td>
</tr>
</tbody>
</table>
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<th>Standards</th>
<th>Objective for Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity coverage ratio (LCR)</td>
<td>To promote resilience for a longer time horizon (one year) by creating additional incentives for banks to fund their activities with more stable sources of funding on an ongoing basis</td>
</tr>
<tr>
<td>Net stable funding ratio (NSFR)</td>
<td></td>
</tr>
</tbody>
</table>

Click each button to view the details.
At its minimum, the stock of unencumbered HQLA should enable the bank to survive for a period of 30 days. It is assumed that in the meantime the bank’s management and supervisors would resolve the issue through appropriate corrective action.

LCR is represented by the below given equation:

\[
\text{LCR} = \frac{\text{Stock of high-quality liquid assets}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%
\]
Net Stable Funding Ratio (NSFR)

The NSFR is defined as the ratio of the available amount of stable funding to the required amount of stable funding.

NSFR is represented by the below given equation:

\[
\text{NSFR} = \frac{\text{Available amount of stable funding (ASF)}}{\text{Required amount of stable funding (RSF)}} > 100\%
\]

- NSFR standard aims at the maintenance of minimum acceptable amount of stable funding based on the liquidity characteristics of an institution's assets and activities over a one-year horizon.
- It is designed to act as a minimum enforcement mechanism to complement the LCR and reinforce other supervisory efforts. This is achieved by promoting structural changes in the liquidity risk profiles of institutions away from short-term funding mismatches and towards more stable, longer-term funding of assets and business activities.
- It aims to limit over-reliance on short-term wholesale funding during times of liquidity stress and encourage better assessment of liquidity risk across all on and off-balance sheet items.
- The NSFR approach also offsets incentives for institutions to fund their stock of liquid assets with short-term funds that mature just outside the 30-day horizon for that standard.
- The components of the above equation will be discussed in the following screens.
Net Stable Funding Ratio (NSFR)

The NSFR is defined as the ratio of the available amount of stable funding to the required amount of stable funding.

- NSFR is represented by the below given equation:

\[
\text{NSFR} = \frac{\text{Available amount of stable funding (ASF)}}{\text{Required amount of stable funding (RSF)}} > 100\%
\]
### Monitoring Tools

The five monitoring tools, which the Basel Committee on Banking and Supervision has developed, are given below:

<table>
<thead>
<tr>
<th>Monitoring Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractual maturity mismatch</td>
<td>The objective of this metric is to identify the gaps between the contractual inflows and outflows of liquidity for defined time bands.</td>
</tr>
<tr>
<td>Concentration of funding</td>
<td>The objective of this metric is to identify those sources of wholesale funding that are of such significance that their withdrawal could trigger liquidity problems.</td>
</tr>
<tr>
<td>Available unencumbered assets</td>
<td>The objective of this metric is to equip the supervisors with the data on the quantity and key characteristics including currency denomination and location of banks’ available unencumbered assets.</td>
</tr>
<tr>
<td>LCR by significant currency</td>
<td>The objective of this metric is to capture adequately the potential currency mismatches in each significant currency.</td>
</tr>
<tr>
<td>Market-related monitoring tools</td>
<td>The objective of this metric is to capture high frequency market data with little or no time lag so that it can be used as an early warning indicator for any potential liquidity difficulties at banks.</td>
</tr>
</tbody>
</table>
**Exercise 1**

Drag and drop the characteristics of high-quality liquid assets mentioned in the left column to their respective categories in the right.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Fundamental characteristics</th>
<th>Marketable characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of committed market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>makers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low correlation with risky assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active and sizable market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease and certainty of valuation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flight to quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listed on a developed and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>recognized exchange market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low market concentration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Drag the correct options and drop inside the box. Once you are done, click the **Submit** button.
PART II – US IMPLEMENTATION OF BASEL III
The Federal Reserve Board approved the Final Rule on July 2, 2013.

The OCC approved the Final Rule on July 9, 2013.

The FDIC approved this as an Interim Final Rule on July 9, 2013.
US Implementation of Basel III

- Revised definition of regulatory capital
- A new common equity tier 1 minimum capital requirement
- A higher minimum tier 1 capital requirement
- For Banking organizations subject to the advanced approaches risk-based rules, supplementary leverage ratio that incorporates a broader set of exposures in the denominator
- Prompt Correction Action (PCA) framework
- Limits on Capital distributions and certain discretionary bonus payments
- Amended Methodologies for determining risk-weighted assets
### PCA Levels for All Insured Depository Institutions

<table>
<thead>
<tr>
<th>PCA Category</th>
<th>Total RBC %</th>
<th>Tier 1 RBC ratio %</th>
<th>Common Equity tier 1 RBC (proposed)%</th>
<th>Leverage Measure</th>
<th>PCA requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Leverage ratio %</td>
<td>Supplementary leverage ratio %</td>
</tr>
<tr>
<td>Well Capitalized</td>
<td>≥ 10</td>
<td>≥ 8</td>
<td>≥ 6.5</td>
<td>≥ 5</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Adequately Capitalized</td>
<td>≥ 8</td>
<td>≥ 6</td>
<td>≥ 4.5</td>
<td>≥ 4</td>
<td>3.0</td>
</tr>
<tr>
<td>Undercapitalized</td>
<td>&lt; 8</td>
<td>&lt; 6</td>
<td>&lt; 4.5</td>
<td>&lt; 4</td>
<td>&lt;3.00</td>
</tr>
<tr>
<td>Significantly Undercapitalized</td>
<td>&lt; 6</td>
<td>&lt; 4</td>
<td>&lt; 3</td>
<td>&lt; 3</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Critically Undercapitalized</td>
<td></td>
<td></td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

*PCA requirements are unchanged from current rule.*

Leverage Measure:
- Leverage ratio: The ratio of total assets to common equity.
- Supplementary leverage ratio: The ratio of supplementary capital to total assets.

**Tangible Equity/Total Assets ~ 2%**

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## CAPITAL CONSERVATION BUFFER AND MAXIMUM PAYOUT RATIO

<table>
<thead>
<tr>
<th>Capital conservation buffer (as a percentage of standardized or advanced total risk weighted assets, as a applicable)</th>
<th>Maximum payout ratio (as a percentage of eligible retained income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 2.5 percent</td>
<td>No payout ratio limitation applies</td>
</tr>
<tr>
<td>Less than or equal to 2.5 percent, and greater than 1.875 percent</td>
<td>60 percent</td>
</tr>
<tr>
<td>Less than or equal to 1.875 percent, and greater than 1.25 percent</td>
<td>40 percent</td>
</tr>
<tr>
<td>Less than or equal to 1.25 percent, and greater than 0.625 percent</td>
<td>20 percent</td>
</tr>
<tr>
<td>Less than or equal to 0.625 percent</td>
<td>0 percent</td>
</tr>
</tbody>
</table>
## Minimum Regulatory Capital Ratios and Capital Buffer

<table>
<thead>
<tr>
<th></th>
<th>Current Treatment</th>
<th>Treatment in Final Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Regulatory Capital (CET1) ratio</td>
<td>N/A</td>
<td>4.5%</td>
</tr>
<tr>
<td>Tier 1 capital ratio</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Total Capital ratio</td>
<td>8%</td>
<td>8%(No change)</td>
</tr>
<tr>
<td>Leverage ratio</td>
<td>4% or (3%)</td>
<td>4%</td>
</tr>
<tr>
<td>Capital conservation buffer</td>
<td>N/A</td>
<td>Capital conservation buffer (composed of CET1 capital) equivalent to 2.5% of risk-weighted assets in addition to the minimum CET1, tier 1, and total capital ratios</td>
</tr>
<tr>
<td>Definition of Capital</td>
<td>Current Treatment</td>
<td>Treatment in Final Rule</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>CET1</td>
<td>No specific definition</td>
<td>Common stock (plus related surplus) and retained earnings less the majority of the regulatory deductions</td>
</tr>
<tr>
<td>Tier capital 1</td>
<td>Common stock (plus related surplus) and retained earnings plus preferred stock and trust-preferred securities (for bank holding companies), less regulatory deductions</td>
<td>CET1 plus non-cumulative perpetual preferred stock and grandfathered trust-preferred and other securities, less certain regulatory deductions</td>
</tr>
<tr>
<td>Definition of Capital: Mortgage servicing assets (MSAs), certain deferred tax assets (DTAs) arising from temporary differences, and certain significant investments in the stock of unconsolidated financial institutions</td>
<td>MSAs and DTAs that are not deducted are subject to a 100% risk weight</td>
<td>These items are subject to more stringent limits and a 250% risk weight; amounts above the limits are deducted from CET1 capital</td>
</tr>
</tbody>
</table>
## COMMUNITY BANK SUMMARY

<table>
<thead>
<tr>
<th>Standardized Approach for Risk-Weighted Assets</th>
<th>Current Treatment</th>
<th>Treatment in Final Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized Approach for Risk-Weighted</td>
<td>100%</td>
<td>100% for most CRE loans and 150% for high volatility commercial real estate (HVCRE), which is a subset of CRE</td>
</tr>
<tr>
<td>Past due exposures</td>
<td>Risk weight generally does not change when loan is past due exposures due (except for residential mortgage exposures)</td>
<td>Generally 150% risk weight (except for sovereign and residential mortgage exposures)</td>
</tr>
<tr>
<td>Conversion factors of commitments with an original maturity of one year or less</td>
<td>0%</td>
<td>0% if unconditionally cancellable at any time; otherwise 20%</td>
</tr>
</tbody>
</table>
Overview of the Final Rule

Timeframe for Implementation and Compliance

IV. Minimum Regulatory Capital Ratios, Additional Capital Requirements, and Overall Capital Adequacy

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C. Supplementary Leverage Ratio for Advanced Approaches Banking Organizations
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E. Countercyclical Capital Buffer
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G. Supervisory Assessment of Overall Capital Adequacy
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   2. State Savings Associations
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2. Additional Tier 1 Capital
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5. Grandfathering of Certain Capital Instruments
6. Agency Approval of Capital Elements
7. Addressing the Point of Non-Viability Requirements under Basel III
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   a. Goodwill and Other Intangibles (other than Mortgage Servicing Assets)
   b. Gain-on-sale Associated with a Securitization Exposure
   c. Defined Benefit Pension Fund Net Assets
   d. Expected Credit Loss that Exceeds Eligible Credit Reserves
   e. Equity Investments in Financial Subsidiaries
   f. Deduction for Subsidiaries of Savings Associations that Engage in Activities that are not Permissible for National Banks
   g. Identified Losses for State Nonmember Banks
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   b. Changes in a Banking Organization’s Own Credit Risk
   c. Accumulated Other Comprehensive Income
   d. Investments in Own Regulatory Capital Instruments
   e. Definition of Financial Institution
   f. The Corresponding Deduction Approach
   g. Reciprocal Crossholdings in the Capital Instruments of Financial Institutions
   h. Investments in the Banking Organization’s Own Capital Instruments or in the Capital of Unconsolidated Financial Institutions
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j. Non-significant Investments in the Capital of Unconsolidated Financial Institutions

k. Significant Investments in the Capital of Unconsolidated Financial Institutions that are not in the Form of Common Stock

l. Items Subject to the 10 and 15 percent Common Equity Tier 1 Capital Threshold Deductions

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3. Exposures to Government-sponsored Entities
4. Exposures to Depository Institutions, Foreign Banks, and Credit Unions
5. Exposures to Public-sector Entities
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8. Pre-sold Construction Loans and Statutory Multifamily Mortgages
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1. Definition of Cleared Transaction
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3. Risk Weighting for Cleared Transactions
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   a. Eligibility Requirements
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   c. Maturity Mismatch Haircut
   d. Adjustment for Credit Derivatives without Restructuring as a Credit Event
   e. Currency Mismatch Adjustment
   f. Multiple Credit Risk Mitigates
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   c. Simple Approach
   d. Collateral Haircut Approach
   e. Standard Supervisory Haircuts
   f. Own Estimates of Haircuts
   g. Simple Value-at-Risk and Internal Models Methodology

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1. Overview of the Securitization Framework and Definitions

2. Operational Requirements
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   b. Operational Requirements for Traditional Securitizations
   c. Operational Requirements for Synthetic Securitizations
   d. Clean-up Calls
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   a. Exposure Amount of a Securitization Exposure
   b. Gains-on-sale and Credit-enhancing Interest-only Strips
   c. Exceptions under the Securitization Framework
   d. Overlapping Exposures
   e. Servicer Cash Advances
   f. Implicit Support

4. Simplified Supervisory Formula Approach

5. Gross-up Approach

6. Alternative Treatments for Certain Types of Securitization Exposures
   a. Eligible Asset-backed Commercial Paper Liquidity Facilities
   b. A Securitization Exposure in a Second-loss Position or better to an Asset-backed Commercial Paper Program

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8. Nth-to-default Credit Derivatives
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A. Definition of Equity Exposure and Exposure Measurement
B. Equity Exposure Risk Weights
C. Non-significant Equity Exposures
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E. Measures of Hedge Effectiveness
F. Equity Exposures to Investment Funds
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   2. Simple Modified Look-through Approach
   3. Alternative Modified Look-through Approach

X. Insurance-related Activities

XI. Market Discipline and Disclosure Requirements
XII. Risk-weighted Assets – Modifications to the Advanced Approaches

A. Counterparty Credit Risk

1. Recognition of Financial Collateral
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   b. Revised Supervisory Haircuts

2. Holding Periods and the Margin Period of Risk

3. Internal Models Methodology
   a. Recognition of Wrong-way Risk
   b. Increased Asset Value Correlation Factor

4. Credit Valuation Adjustments
   a. Simple Credit Valuation Adjustment approach
   b. Advanced Credit Valuation Adjustment approach

5. Cleared Transactions (Central Counterparties)

6. Stress Period for Own Estimates
Subparts of U.S. Basel III Final Rule

B. Removal of Credit Ratings
   1. Eligible Guarantor
   2. Money Market Fund Approach
   3. Modified Look-through Approaches for Equity Exposures to Investment Funds

C. Revisions to the Treatment of Securitization Exposures
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   2. Operational Criteria for Recognizing Risk Transference in Traditional Securitizations
   3. The Hierarchy of Approaches
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2. Calculation of Foreign Exposures for Applicability of the Advanced Approaches – Insurance Underwriting Subsidiaries
3. Calculation of Foreign Exposures for Applicability of the Advanced Approaches – Changes to Federal Financial Institutions Examination Council 009 Applicability of the Final Rule
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5. Cash Items in Process of Collection
6. Change to the Definition of Qualifying Revolving Exposure
7. Trade-related Letters of Credit
9. Defaulated Exposures that are Guaranteed by the U.S. Government
10. Stable Value Wraps
11. Treatment of Pre-sold Construction Loans and Multi-family Residential Loans

F. Pillar 3 Disclosures

1. Frequency and Timeliness of Disclosures
2. Enhanced Securitization Disclosure Requirements
3. Equity Holdings That Are Not Covered Positions
High Volatility Commercial Real Estate-Risk Weights (HVCRE)

Current Treatment: 100%
New Rule: 150%

Implications for Pricing?

Assume

<table>
<thead>
<tr>
<th>Loan Risk Weighting</th>
<th>Capital Requirement (%)</th>
<th>Capital Requirement ($)</th>
<th>Cost of Capital</th>
<th>Deposits Funding ($)</th>
<th>Cost of Deposits</th>
<th>Total Cost of Funding ($)</th>
<th>Total Cost of Funding (%)</th>
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<tbody>
<tr>
<td>100%</td>
<td>8.00%</td>
<td>$ 8.00</td>
<td>$ 1.20</td>
<td>$ 92.00</td>
<td>$ 1.84</td>
<td>$ 3.04</td>
<td>3.04%</td>
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<tr>
<td>150%</td>
<td>12.00%</td>
<td>$ 12.00</td>
<td>$ 1.80</td>
<td>$ 88.00</td>
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<td>$ 3.56</td>
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Increase in Price: 52 BP (3.56 - 3.04)
Assume

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Loan Amount</td>
<td>$100.00</td>
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<tr>
<td>Target ROE</td>
<td>20.00%</td>
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<tr>
<td>Capital Requirement</td>
<td>8.00%</td>
</tr>
<tr>
<td>Cost of Deposit Funding</td>
<td>3.00%</td>
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Solution???
Impact on Capital Requirements

How each part of the equation is affected?

Risk-Based Capital Ratio (%) = \[
\frac{\text{Regulatory Capital}}{\text{Risk-Weighted Assets}}
\]

(A). Higher Capital Ratios

(B). More stringent requirements for eligible capital

(C). Higher Risk Weights and Collins Amendment capital floor Dodd-Frank
### Basel III Applications

<table>
<thead>
<tr>
<th>Applies to:</th>
<th>Does Not Apply to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• National banks</td>
<td>• Small BHCs: BHCs with &lt; $500 million in total consolidated assets.</td>
</tr>
<tr>
<td>• State member banks</td>
<td>• Non-covered SLHCs: A grandfathered unitary SLHC substantially engaged in commercial activities (applying a ≥ 50% of assets or revenues test)</td>
</tr>
<tr>
<td>• State non-member banks</td>
<td>• Holding companies of industrial loan companies unless designated as systemically important</td>
</tr>
<tr>
<td>• U.S. bank holding companies (BHCs) other than small BHCs</td>
<td></td>
</tr>
<tr>
<td>• State savings associations</td>
<td></td>
</tr>
<tr>
<td>• Federal savings associations</td>
<td></td>
</tr>
<tr>
<td>• Covered savings and loan holding companies (SLHCs)</td>
<td></td>
</tr>
<tr>
<td>• Any of the above that are subsidiaries of foreign banks</td>
<td></td>
</tr>
</tbody>
</table>
PART III – PRACTICAL EXAMPLES
Example 1
Example 2
Example 3
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Thank you!