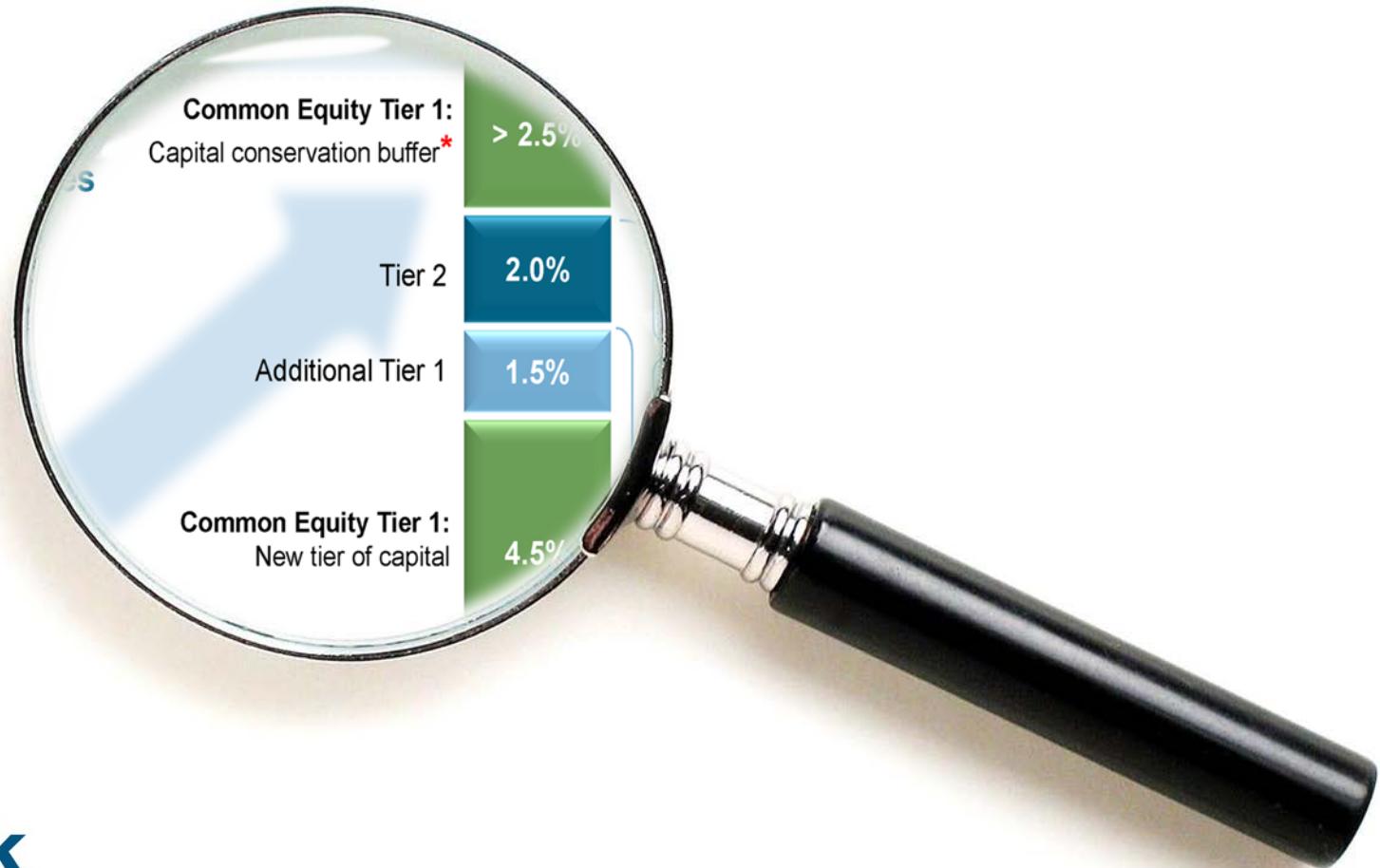


U.S. Basel III Final Rule: Visual Memorandum



April 30, 2015

Davis Polk

Davis Polk & Wardwell LLP

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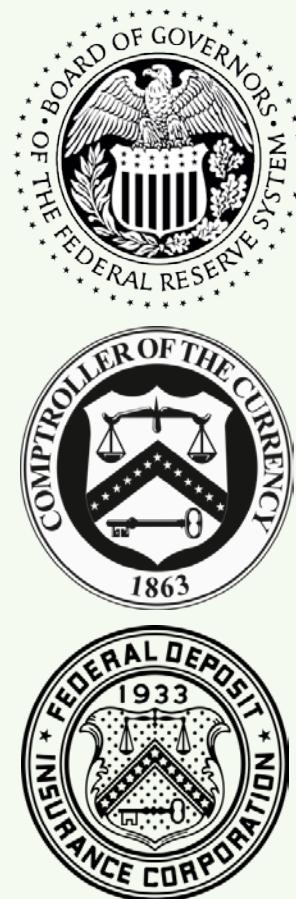
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Overview of U.S. Basel III Final Rule

- The U.S. banking agencies* have issued a final rule to comprehensively revise the regulatory capital framework for the U.S. banking sector.
- The U.S. Basel III final rule represents the most complete overhaul of U.S. bank capital standards since the U.S. adoption of Basel I in 1989.
- The final rule implements many aspects of the Basel III capital framework agreed upon by the Basel Committee, but also incorporates changes required by the Dodd-Frank Act.
- The U.S. Basel III final rule makes a number of significant changes to the June 2012 U.S. Basel III proposals.

* 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 the rule as an interim final rule on July 9, 2013.



Which Organizations Are Affected?

U.S. Basel III Applies to:

- National banks
- State member banks
- State nonmember banks
- U.S. bank holding companies (BHCs) *other than* small BHCs
- State savings associations
- Federal savings associations
- Covered savings and loan holding companies (SLHCs)
- Any of the above that are subsidiaries of foreign banks

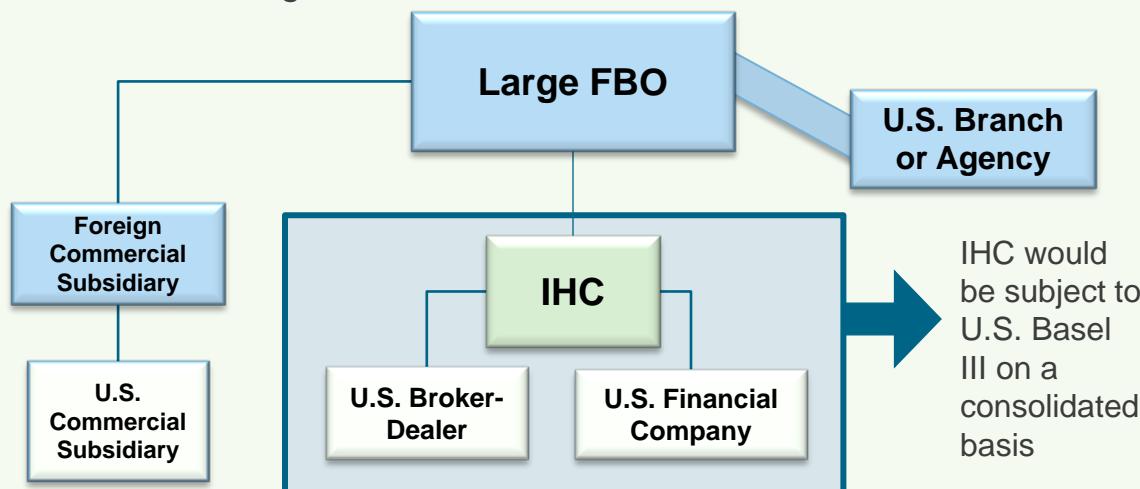
U.S. Basel III Does Not Apply to:

- Small BHCs: BHCs with < \$500 million in total consolidated assets that:
 - are not engaged in significant nonbanking activities;
 - do not conduct significant off-balance sheet activities; and
 - do not have a material amount of SEC-registered debt or equity securities.
- Non-covered SLHCs:^{*}
 - A grandfathered unitary SLHC substantially engaged in commercial activities (applying a $\geq 50\%$ of assets or revenues test);
 - An SLHC that is an insurance underwriting company; and
 - An SLHC that substantially engages in insurance underwriting activities (applying a $\geq 25\%$ of assets held in insurance underwriting subsidiaries test).
- Holding companies of industrial loan companies *unless* designated as systemically important (*see next page*)

* The Federal Reserve expects to implement an “appropriate” capital framework for non-covered SLHCs by the time covered SLHCs must comply with the final rule in 2015.

Which Organizations Are Affected? (cont.)

- Using its authority under the Dodd-Frank Act to establish enhanced prudential standards, the Federal Reserve has also **proposed** to apply U.S. Basel III to:
 - Any U.S. intermediate holding company (IHC) that is required to be established by a large foreign banking organization (FBO) for its U.S. banking and non-banking subsidiaries;
 - U.S. nonbank financial companies that are designated as systemically important by the U.S. Financial Stability Oversight Council (nonbank SIFIs), subject to any case-by-case tailoring; and
 - Any U.S. IHC that is required to be established by a foreign nonbank SIFI, subject to any case-by-case tailoring.



Related Resources

- Davis Polk's memo on the Federal Reserve's proposed enhanced prudential standards for U.S. firms is available [here](#)
- Davis Polk's memo on the Federal Reserve's proposed enhanced prudential standards for foreign firms is available [here](#)

Which Organizations Are Affected? (cont.)

Subpart of U.S. Basel III Final Rule	Description of Subpart	Applies to
Subpart A	General provisions and definitions	All banking organizations subject to the final rule
Subpart B	Minimum capital ratios and capital buffers	All banking organizations subject to the final rule
Subpart C	Definition of capital, including regulatory adjustments and deductions	All banking organizations subject to the final rule
Subpart D	Standardized approach for calculating risk-weighted assets (RWAs)	All banking organizations subject to the final rule (capital floor for advanced approaches banking organizations)
Subpart E	Advanced approaches for calculating RWAs	Advanced approaches banking organizations only
Subpart F	RWAs for market risk	Market risk banking organizations only
Subpart G	Transition provisions	All banking organizations subject to the final rule

An **advanced approaches banking organization** is one that:

- has $\geq \$250$ billion in total consolidated assets;
- has $\geq \$10$ billion of on-balance sheet foreign exposures; **or**
- chooses, with approval by its primary federal banking regulator, to use the advanced approaches to calculate RWAs.

A **market risk banking organization** is one that:

- has aggregate trading assets and trading liabilities of $\geq 10\%$ of total assets or $\geq \$1$ billion; **or**
- is required by its primary federal banking regulator to calculate RWAs for market risk because of the level of its market risk.

Key Changes to U.S. Basel III Proposals: Timing of Effectiveness

Non-advanced approaches banking organizations and covered SLHCs

- **January 1, 2015**
 - Compliance with U.S. Basel III minimum regulatory capital ratios and standardized approach for calculating RWAs
 - Start of transition period for definition of regulatory capital and regulatory adjustments and deductions
- **January 1, 2016**
 - Start of transition period for capital conservation buffer*

Advanced approaches banking organizations other than covered SLHCs

- **January 1, 2014**
 - Compliance with U.S. Basel III advanced approaches for calculating RWAs
 - Start of transition period for minimum regulatory capital ratios, definition of regulatory capital and regulatory adjustments and deductions
 - Compliance with Basel I rules for calculating RWAs as floor
- **January 1, 2015**
 - Compliance with U.S. Basel III standardized approach for calculating RWAs as floor
- **January 1, 2016**
 - Start of transition period for capital conservation and countercyclical capital buffers

* If a covered SLHC is an advanced approaches banking organization, transition period for countercyclical capital buffer will also begin on January 1, 2016.

Key Changes to U.S. Basel III Proposals: Numerator Proposal

- **Accumulated other comprehensive income (AOCI) filter**
 - Provides non-advanced approaches banking organizations a one-time opportunity to permanently opt-out of the removal of the AOCI filter, i.e., retain AOCI treatment under Basel I capital rules
 - Removes the AOCI filter for **(1)** advanced approaches banking organizations and **(2)** other banking organizations that do not make a **timely** opt-out election
- **Grandfathering and phase-out of non-qualifying capital instruments**
 - Permanently grandfathers in Tier 1 capital non-qualifying capital instruments, including trust preferred securities (TruPS) and cumulative perpetual preferred stock, issued prior to May 19, 2010 by depository institution holding companies with < \$15 billion in total assets as of year-end 2009, subject to a limit of 25% of Tier 1 capital (excluding any non-qualifying capital instruments and after applying all regulatory capital deductions and adjustments to Tier 1 capital)
 - Non-qualifying capital instruments issued by *other* depository institution holding companies must be fully phased out of Tier 1 capital by January 1, 2016
 - Permanently grandfathers in Tier 2 capital non-qualifying capital instruments that are phased out of Tier 1 capital, **except** that advanced approaches banking organizations must, by January 1, 2022, fully phase out of Tier 2 capital any non-qualifying capital instruments that do not meet the U.S. Basel III Tier 2 eligibility criteria
- **Capital conservation buffer:** Requires an advanced approaches banking organization that has been authorized to exit its parallel run process to use the **lower** of each risk-based capital ratio calculated under the standardized approach and the advanced approaches to determine:
 - **(1)** compliance with minimum capital ratios; and
 - **(2)** the size of its capital conservation buffer

Key Changes to U.S. Basel III Proposals: Numerator Proposal (cont.)

- Eligibility criteria for capital instruments
 - Common Equity Tier 1 capital
 - Permits payment of dividends out of surplus related to common stock in addition to net income and retained earnings
 - Accommodations for common equity issued to or for employee stock ownership plans (ESOPs) and for repurchases required by ERISA for non-publicly traded stock
 - Final rule does not modify eligibility criteria to accommodate the payment of a penny dividend
 - Additional Tier 1 capital
 - Instruments issued and included in a banking organization's Tier 1 capital **before** the effective date of the final rule that permit early calls within five years of issuance upon the occurrence of a rating agency event would not be disqualified from Additional Tier 1 capital if they otherwise comply with the eligibility criteria
 - Permits dividend stoppers on common stock instruments and on *pari passu* capital instruments
 - Permits early calls within five years of issuance upon the occurrence of an investment company event
 - Permits payment of dividends out of surplus related to Additional Tier 1 capital instruments in addition to net income and retained earnings
 - Accommodations for instruments issued to or for ESOPs and for repurchases required by ERISA for non-publicly traded instruments
 - Final rule does not modify eligibility criteria to accommodate the payment of a penny dividend

Key Changes to U.S. Basel III Proposals: Numerator Proposal (cont.)

- **Tier 2 capital**
 - Preamble to final rule clarifies that Tier 2 capital instruments must be subordinated to the claims of depositors and general creditors, but may be rank equally with trade creditors.
 - Permits early calls within five years of issuance upon the occurrence of an investment company event
 - Instruments issued and included in a banking organization's regulatory capital **before** the effective date of the final rule that permit early calls within five years of issuance upon the occurrence a rating agency event would not be disqualified from Tier 2 capital if they otherwise comply with the eligibility criteria
 - For a non-advanced approaches banking organization making an AOCI opt-out election, allows inclusion of 45% of pretax net unrealized gains on available-for-sale (AFS) preferred stock classified as an equity security under GAAP and equity exposures
- **Deductions from and adjustments to regulatory capital**
 - **Investments in the capital of unconsolidated financial institutions – definition of “financial institution”**
 - Adds ownership interest thresholds of \$10 million or > 10% of common equity to the “predominantly engaged” prong of the definition
 - Excludes employee benefit plans, entities registered with SEC under the Investment Company Act of 1940, and their foreign equivalents
 - **Mortgage servicing assets (MSAs)**
 - Not subject to the proposed 90% fair value limitation on MSAs
 - Still subject to the threshold deduction treatment, and the 10% individual and 15% aggregate thresholds have not changed

Key Changes to U.S. Basel III Proposals: Standardized Approach Proposal

- **Residential mortgage exposures:** Abandons proposed framework and retains the Basel I standardized risk weights for residential mortgage exposures, i.e., 50% risk weight for most first-lien exposures that are prudently underwritten and are performing according to their original terms; 100% risk weight for other residential mortgage exposures
- **HVCRE loans:** Excludes from the definition of high volatility commercial real estate loans to facilitate certain community development projects and loans secured by agricultural land
- **Cleared transactions:** Generally incorporates Basel Committee's July 2012 interim framework concerning capital requirements for exposures to central counterparties
- **SSFA for securitization exposures:**
 - Modifies the delinquency parameter W to recognize common deferral features associated with student and consumer loans that are unrelated to credit risk. Conforming changes to the market risk capital rule have been proposed.
 - Permits alternative gross-up approach for non-market risk banking organizations, subject to same minimum risk weight of 20%
 - Retains 1,250% risk weight for certain securitization exposures, even if this means that capital charge may significantly exceed actual amount of exposure
- **Credit-enhancing representations and warranties:** Safe harbor for **(1)** early default clauses and warranties that permit the return of, or premium refund clauses covering, residential mortgage loans that qualify for a 50% risk weight for 120 days from date of transfer; **(2)** premium refund clauses covering assets guaranteed, in whole or in part, by the U.S. government, agency or government-sponsored enterprise (GSE) for 120 days from date of transfer; and **(3)** warranties permitting return of underlying exposures in instances of misrepresentation, fraud or incomplete documentation.

Key Changes to U.S. Basel III Proposals: Standardized Approach Proposal (cont.)

- **Foreign exposures:** Modifies risk weight tables to take into account the OECD's decision to no longer assign country risk classifications (CRCs) to certain high-income countries that received a CRC of 0 in 2012. Conforming changes to the market risk capital rule have been proposed.
- **Equity exposures to investment funds:**
 - Clarifies that the risk weight for any equity exposure to an investment fund must be no less than 20%
 - Under both the standardized approach and the advanced approaches, purchaser of stable value protection on separate account must treat portion of investment attributable to stable value protection as exposure to protection provider, and must treat balance as equity exposure to an investment fund
 - Under both the standardized approach and the advanced approaches, provider of stable value protection must treat exposure as if it were equity derivative on an investment fund
- **Collateral haircut approach**
 - Both the standardized approach and advanced approaches final rules lower the proposed 25% supervisory market price volatility haircut for financial collateral issued by non-sovereign issuers with a 100% risk weight to 4% haircut if residual maturity < 1 year; 8% haircut if residual maturity > 1 year but ≤ 5 years; and 16% haircut if residual maturity > 5 years
- **Pillar 3 public disclosures:** Clarifies that if an advanced approaches banking organization has not completed its parallel run by Q1 2015, it must make the Pillar 3 disclosures required by the standardized approach until it has completed its parallel run, at which time it will be required to make the Pillar 3 disclosures required by the advanced approaches

Key Changes to U.S. Basel III Proposals: Advanced Approaches Proposal

■ Credit valuation adjustment (CVA) capital requirement

- Makes technical corrections to clarify that the CVA capital requirement is calculated on a portfolio basis and not on a counterparty-by-counterparty basis
- U.S. banking agencies **declined** to exempt central banks, multilateral development banks, corporate-end users or other classes of OTC derivative counterparties from the CVA capital requirement
- Clarifies that where no market information and no reliable proxy based on the credit quality, industry and region of the counterparty are available to determine LGD_{MKT} , a banking organization may use a conservative estimate when determining LGD_{MKT} , subject to approval by its primary federal banking regulator

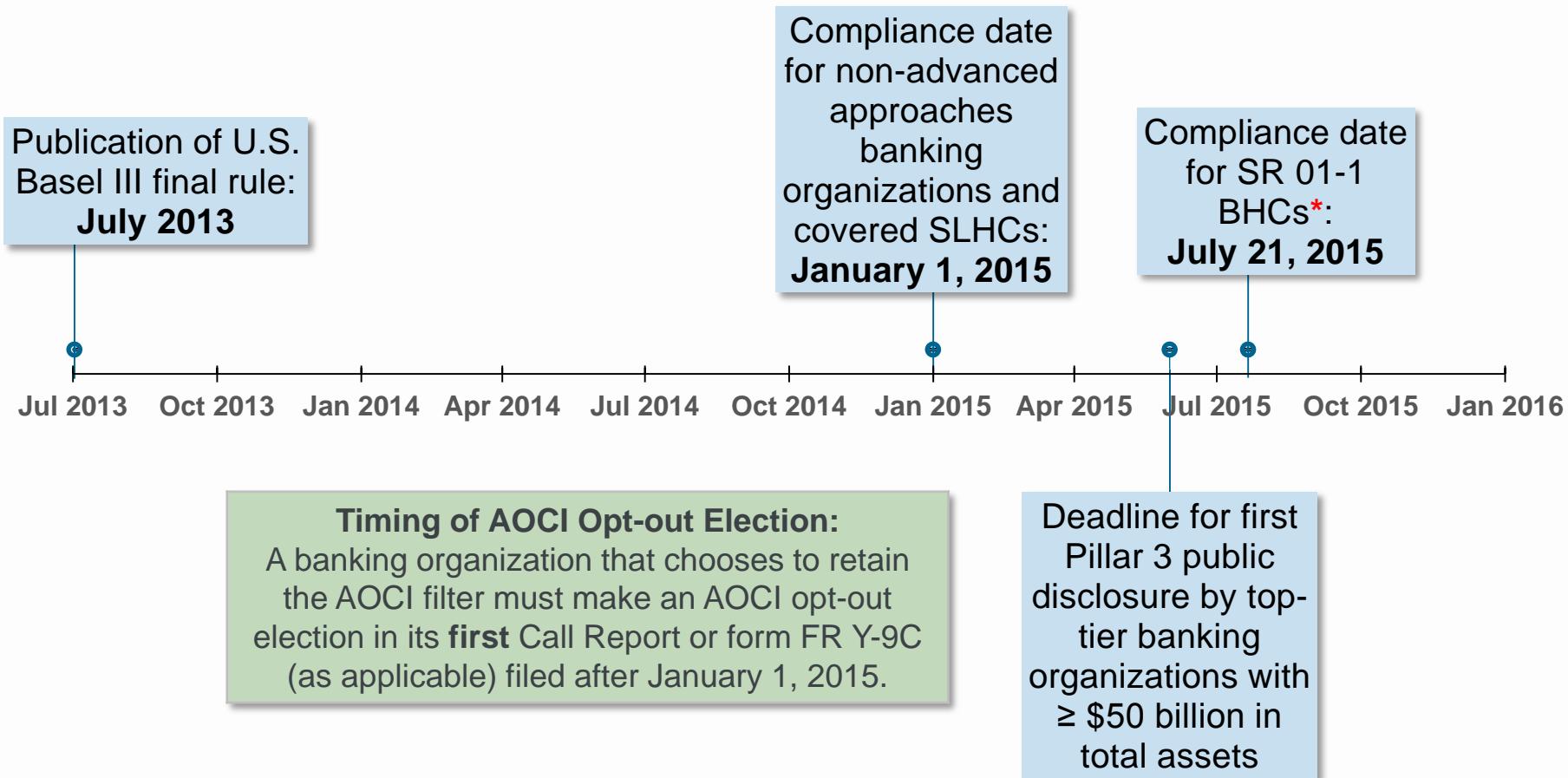
■ Asset value correlation factor

- Makes technical corrections to the correlation factor formulas for wholesale exposures to unregulated and regulated financial institutions by revising a proposed 0.18 coefficient to 0.12 in order to be consistent with Basel III
- Definition of “unregulated financial institution” disregards the ownership interest thresholds in the “predominantly engaged” prong of the new definition of “financial institution”

Impact on Community Banking Organizations

- In this memorandum, a community banking organization refers to a U.S. banking organization that has **less than \$15 billion in total consolidated assets** as of year-end 2009.*
- **Key Compliance Dates** ([see pages 16-17](#))
 - New minimum capital ratios and risk weight regime will become effective on **January 1, 2015**
 - Capital conservation buffer and new regulatory adjustments and deductions will be phased in from **2015 to 2019**
- **AOCI:** To retain the AOCI treatment under U.S. Basel I bank capital rules, a community banking organization must make an AOCI opt-out election in its **first** regulatory report filed in 2015 ([see pages 35-37](#))
- **Permanent Grandfathering of Non-qualifying Capital Instruments:** TruPS, cumulative perpetual preferred stock and other non-qualifying capital instruments issued **before** May 19, 2010 are permanently grandfathered in Tier 1 capital (subject to a limit of 25% of Tier 1) ([see pages 25-26](#))
- **Capital Deductions:** U.S. Basel III provides for much more stringent regulatory deductions for MSAs and deferred tax assets (DTAs) than U.S. Basel I bank capital rules ([see page 34](#))
- **Risk Weights** ([see pages 44-55](#))
 - Final rule retains U.S. Basel I capital treatment of residential mortgages (50% risk weight for prudently underwritten first-lien exposures that are performing according to their original terms; 100% risk weight for other residential mortgage exposures)
 - 100% risk weight for most commercial real estate (CRE) loans; 150% for high volatility CRE loans
 - 150% risk weight for past due exposures (except sovereign and residential mortgages)
- No Pillar 3 public disclosure obligations

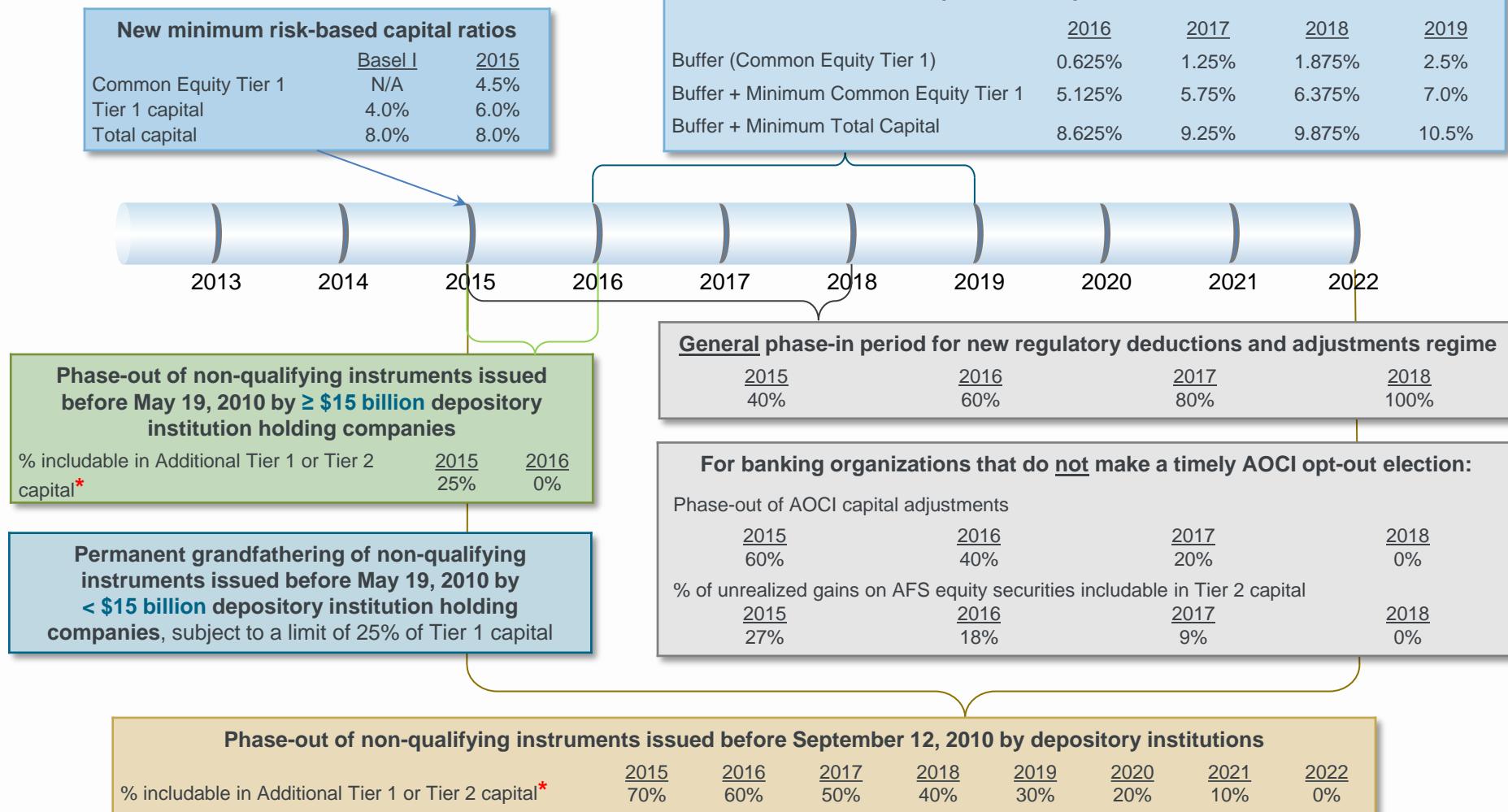
Key Compliance Dates for Non-Advanced Approaches Banking Organizations and Covered SLHCs



* SR 01-1 BHC refers to a BHC subsidiary of a foreign banking organization that currently relies on the Federal Reserve's Supervision and Regulation Letter (SR) 01-1.

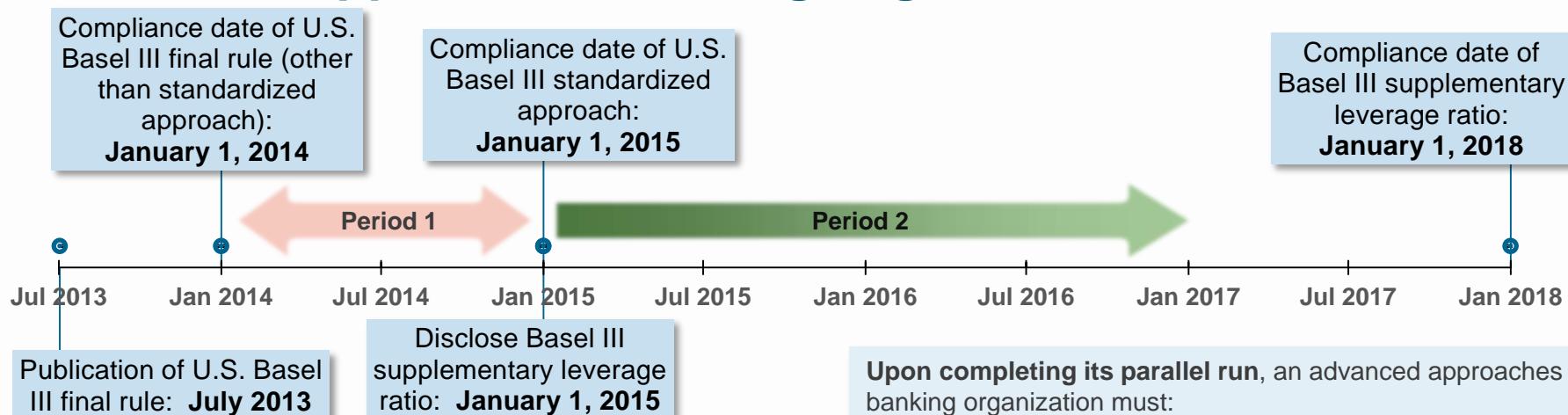
Transitional Arrangements for Non-Advanced Approaches Banking Organizations and Covered SLHCs

All dates refer to January 1, except where noted



* Percentage includable in Additional Tier 1 capital and Tier 2 capital is based on the aggregate outstanding principal amounts of such non-qualifying Tier 1 and Tier 2 capital instruments, respectively, as of the effective date of the Basel III final rule.

Key Compliance Dates for Advanced Approaches Banking Organizations



During its parallel run, an advanced approaches banking organization must:

- for the period between January 1, 2014 and December 31, 2014 (**Period 1**), calculate RWAs using the **U.S. Basel I-based rules** for purposes of determining compliance with capital requirements in the U.S. Basel III final rule;
- for the period beginning on January 1, 2015 (**Period 2**), calculate RWAs using the **Basel III standardized approach** for purposes of determining compliance with capital requirements in the U.S. Basel III final rule;
- for the period beginning on January 1, 2014, calculate RWAs using the **Basel III advanced approaches** for purposes of confidential reporting to its primary federal banking regulator; and
- with respect to Q1 2015 and each quarter thereafter, make Pillar 3 public disclosures required by the **Basel III standardized approach** (assuming the advanced approaches banking organization has not completed its parallel run by Q1 2015).

Upon completing its parallel run, an advanced approaches banking organization must:

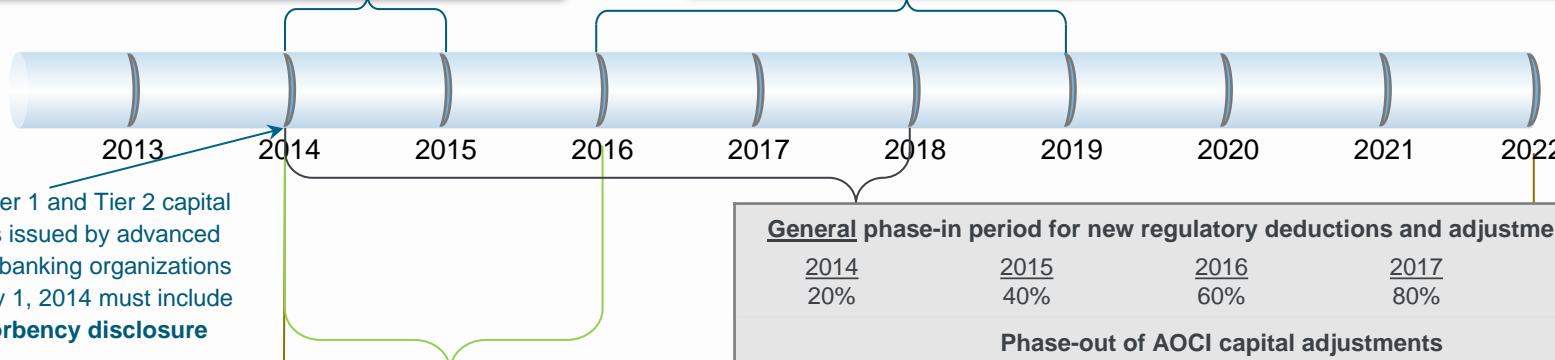
- for the period between January 1, 2014 and December 31, 2014 (**Period 1**), calculate standardized RWAs using the **U.S. Basel I-based rules**;
- for the period beginning on January 1, 2015 (**Period 2**), calculate standardized RWAs using the **Basel III standardized approach**;
- for the period beginning on January 1, 2014, calculate advanced approaches RWAs using the **Basel III advanced approaches**;
- calculate risk-based capital ratios using **both** standardized approach RWAs and advanced approaches RWAs and use the **lower** of each capital ratio calculated under the two approaches to:
 - (1) determine compliance with minimum capital requirements; and
 - (2) calculate its capital conservation buffer; and
- make quarterly Pillar 3 public disclosures required by the **Basel III advanced approaches**.

Transitional Arrangements for Advanced Approaches Banking Organizations

All dates refer to January 1, except where noted

New minimum risk-based capital ratios			
	Basel I	2014	2015
Common Equity Tier 1	N/A	4.0%	4.5%
Tier 1 capital	4.0%	5.5%	6.0%
Total capital	8.0%	8.0%	8.0%

Phase-in period for capital conservation buffer				
	2016	2017	2018	2019
Buffer (Common Equity Tier 1)	0.625%	1.25%	1.875%	2.5%
Buffer + Minimum Common Equity	5.125%	5.75%	6.375%	7.0%
Tier 1				
Buffer + Minimum Total Capital	8.625%	9.25%	9.875%	10.5%



General phase-in period for new regulatory deductions and adjustments regime				
2014	2015	2016	2017	2018
20%	40%	60%	80%	100%
Phase-out of AOCI capital adjustments				
2014	2015	2016	2017	2018
80%	60%	40%	20%	0%
% of unrealized gains on AFS equity securities includable in Tier 2 capital				
2014	2015	2016	2017	2018
36%	27%	18%	9%	0%

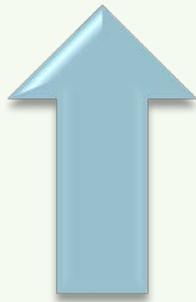
Phase-out of non-qualifying instruments issued before September 12, 2010 by advanced approaches depository institutions									
% includable in Additional Tier 1 or Tier 2 capital*	2014	2015	2016	2017	2018	2019	2020	2021	2022
80%	70%	60%	50%	40%	30%	20%	10%	0%	

Treatment of non-qualifying instruments (including TruPS) issued before May 19, 2010 by advanced approaches depository institution holding companies that are phased out of Tier 1 capital

% includable in Tier 2 capital*	2016	2017	2018	2019	2020	2021	2022
60%	50%	40%	30%	20%	10%	0%	

* Percentage includable in Additional Tier 1 capital and Tier 2 capital is based on the aggregate outstanding principal amounts of such non-qualifying Tier 1 and Tier 2 capital instruments, respectively, as of the effective date of the Basel III final rule.

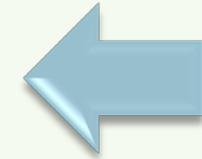
How Did U.S. Basel III Affect the Risk-Based Capital Ratio?



- Higher minimum capital ratios
- Requires banking organizations to maintain capital buffer(s) above minimum requirements to avoid restrictions on capital distributions and executive bonus payments



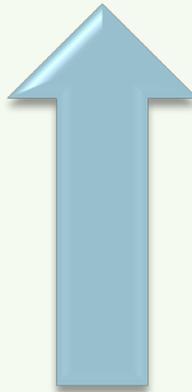
- Narrows the eligibility criteria for regulatory capital instruments
- New regulatory adjustments to and deductions from capital that place the focus on tangible common equity



Risk-Based Capital Ratio (%) =

Regulatory Capital

—————
Risk-Weighted Assets

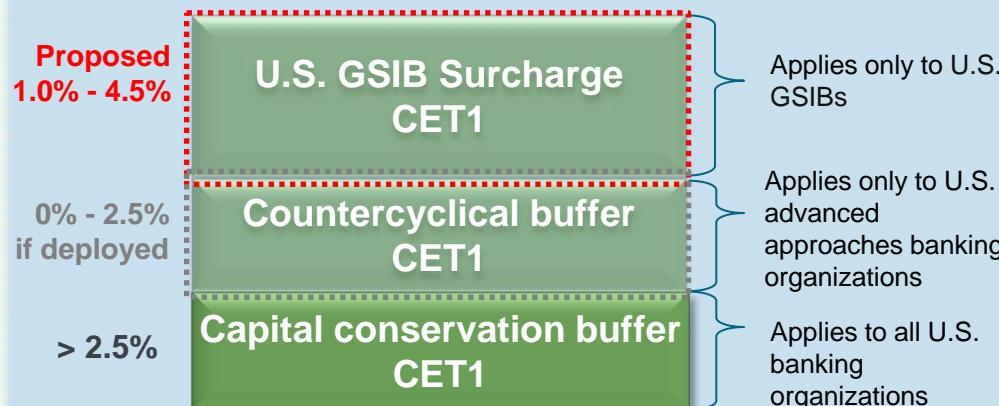


- Generally higher RWAs for OTC derivatives, cleared derivatives, high volatility commercial real estate loans and securitizations
- **Collins Amendment capital floor:** An advanced approaches banking organization must calculate its risk-based capital ratios under both the advanced approaches and the standardized approach. The advanced approaches banking organization must then use the **lower** of each capital ratio calculated under the two approaches to:
 - (1) determine compliance with minimum capital requirements; and
 - (2) calculate its capital conservation buffer.

Overview of the U.S. Basel III Capital Requirements

Risk-Based Capital Requirements (as % of RWA)

Capital Buffers Subject to Buffer Framework for restricting capital distributions and discretionary bonus payments



Minimum Risk-based Capital Ratios



Leverage-Based Capital Requirements (as % of exposure measure)

U.S. Leverage Ratio

$$\frac{4\% \text{ Minimum}}{\text{Tier 1 Capital}} + \frac{\text{Avg. Total Consolidated Assets}^*}{\text{Avg. Total Consolidated Assets}^*}$$

Applies to all U.S. banking organizations

* Denominator is an on-balance sheet measure, adjusted for deductions from Tier 1 capital

U.S. Supplementary Leverage Ratios

$$\frac{\text{eSLR} > 2\% \text{ Buffer}}{\text{Tier 1 Capital}} + \frac{\text{Total Leverage Exposure}^{**}}{\text{Total Leverage Exposure}^{**}}$$

Applies only to U.S. GSIBs

$$\frac{\text{SLR } 3\% \text{ Minimum}}{\text{Tier 1 Capital}} + \frac{\text{Total Leverage Exposure}^{**}}{\text{Total Leverage Exposure}^{**}}$$

Applies only to U.S. advanced approaches banking organizations

** Denominator is a comprehensive exposure measure, reflecting both on- and off-balance sheet exposures

Phase-In: All minimum ratios and buffer requirements are shown on a fully phased-in basis.

U.S. Supplementary Leverage Ratio for Advanced Approaches Banking Organizations

$$\text{Basel III Supplementary Leverage Ratio (\%)} = \frac{\text{3\% minimum}}{\text{Tier 1 Capital}} = \frac{\text{U.S. Basel III final rule introduces new eligibility criteria for Tier 1 capital and new regulatory adjustments to and deductions from capital}}{\text{Total Leverage Exposure}}$$

In contrast, the denominator of the U.S. leverage ratio, as defined in the U.S. Basel III final rule, does **not** take into account off-balance sheet exposures

Total leverage exposure equals the **sum** of the following components:

- For **on-balance sheet exposures**, the carrying value of all of the banking organization's on-balance sheet assets, minus amounts deducted from Tier 1 capital and subject to adjustments for certain repo-style transactions;
- For **OTC derivative exposures**, the sum of: (i) the potential future exposure (PFE) amount for each derivative contract (or each single-product netting set of derivative contracts), as determined under the U.S. Basel III standardized approach (i.e., the current exposure method); (ii) an amount to reverse the effect of the U.S. GAAP collateral offset option in some circumstances; (iii) the effective notional amount of certain written credit derivatives; and (iv) exposures arising from certain central clearing arrangements;
- For **repo-style transaction exposures**, a measure that reverses the effect of the U.S. GAAP offset for such transactions unless certain conditions are satisfied, plus a measure for counterparty credit risk; and
- For all **other off-balance sheet exposures**, the credit equivalent amount, as determined using the credit conversion factor under the U.S. Basel III standardized approach (subject to a floor of 10%).

Averaging Frequency: The on-balance sheet component of Total Leverage Exposure is calculated as the average as of each day of the reporting quarter, and the off-balance sheet component of Total Leverage Exposure is calculated as the average of the three most recent month-end amounts.

Revisions to the Prompt Corrective Action Framework

- U.S. Basel III final rule revises the capital thresholds for the different prompt corrective action (PCA) categories for insured depository institutions (IDIs)*
- The revised PCA thresholds will become effective on January 1, 2015**

Prompt Corrective Action Threshold	Risk-Based Capital Ratios			U.S. Leverage Ratio	Basel III Supplementary Leverage Ratio
	Total capital (unchanged)	Tier 1 capital	Common Equity Tier 1 capital		Advanced Approaches IDIs Only (1/1/ 2018 effective date)
Well-capitalized	≥ 10%	≥ 8%	≥ 6.5%	≥ 5%	N/A
Adequately Capitalized	≥ 8%	≥ 6%	≥ 4.5%	≥ 4%	≥ 3%
Undercapitalized	< 8%	< 6%	< 4.5%	< 4%	< 3%
Significantly Undercapitalized	< 6%	< 4%	< 3%	< 3%	N/A
Critically Undercapitalized	Tangible equity (defined as Tier 1 capital plus non-Tier 1 perpetual preferred stock) to total assets ≤ 2%				N/A

* As a result of the Dodd-Frank Act, in order to elect to become a financial holding company, a BHC and all of its depository institution subsidiaries must be well-capitalized and well-managed. The final rule does not establish the standards for determining whether a **BHC** is well-capitalized.

** The U.S. banking agencies have proposed increases in the Basel III Supplementary Leverage Ratio for the eight U.S. G-SIBs. Each IDI subsidiary of a covered BHC would have to maintain at least a 6% Supplementary Leverage Ratio to be well-capitalized.

Multiple Capital Ratio Calculations for Advanced Approaches Banking Organizations

Risk-based Capital Ratios

4.5% minimum Common Equity Tier 1 risk-based capital ratio

6% minimum Tier 1 risk-based capital ratio

8% minimum total risk-based capital ratio

> 2.5% capital conservation buffer

0% - 2.5% countercyclical capital buffer

1% - 4.5% U.S GSIB surcharge
(if applicable)*

Calculate each risk-based capital ratio under **both** the advanced approaches and the standardized approach

Use the **lower** of each capital ratio calculated under the two approaches to determine compliance

Leverage Ratios

4% minimum U.S. leverage ratio

3% minimum U.S. supplementary leverage ratio

>2% buffer enhanced U.S. supplementary leverage ratio

Calculate using average total on-balance sheet assets (minus amounts deducted from Tier 1 capital) as denominator

Calculate using “total leverage exposure” as denominator, which takes into account both on- and off- balance sheet exposures

Only applicable to U.S. GSIBs.

* The Federal Reserve has proposed to implement the GSIB surcharge as an extension of the capital conservation and countercyclical buffers.

U.S. Basel I

Tier 1 Capital

Common Stock and related surplus, retained earnings

Non-Cumulative Perpetual Preferred Stock

Qualifying Minority Interests (issued by consolidated depository institution or foreign bank subsidiaries)

Restricted Elements (limited to 25% of Tier 1)

Cumulative Perpetual Preferred Stock

Trust Preferred Securities

Tier 2 Capital

Subordinated Debt

Qualifying Minority Interests

Restricted Elements exceeding 25% of Tier 1

U.S. Basel III

Common Equity Tier 1 Capital

Common Stock and related surplus, retained earnings

Qualifying Minority Interests (issued by consolidated depository institution or foreign bank subsidiaries)

Additional Tier 1 Capital

Non-Cumulative Perpetual Preferred Stock

Cumulative Perpetual Preferred Stock

Trust Preferred Securities

Qualifying Minority Interests

Tier 2 Capital

Subordinated Debt

Qualifying Minority Interests

Non-qualifying capital instruments issued before May 19, 2010 that exceed 25% of Tier 1

Permanently grandfathered in Tier 1 capital: Non-qualifying capital instruments issued before May 19, 2010 (limited to 25% of Tier 1 capital, excluding any non-qualifying capital instruments and after applying all regulatory capital deductions and adjustments to Tier 1).

Impact of M&A on Non-qualifying Capital Instruments Grandfathered in Tier 1 Capital

\$10 billion*
U.S. BHC

Organic Growth

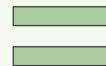
\$20 billion
U.S. BHC



\$5 billion*
U.S. BHC



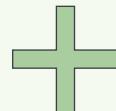
\$5 billion*
U.S. BHC



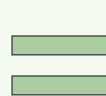
\$10 billion
U.S. BHC



\$10 billion*
U.S. BHC



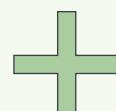
\$10 billion*
U.S. BHC



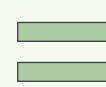
\$20 billion
U.S. BHC



\$17 billion*
U.S. BHC



\$3 billion*
U.S. BHC



\$20 billion
U.S. BHC



- Non-qualifying capital instruments issued prior to May 19, 2010 are **permanently grandfathered** in Tier 1 capital, subject to a limit of 25% of Tier 1 capital elements (excluding any non-qualifying capital instruments and after applying all regulatory capital deductions and adjustments to Tier 1 capital).
- Non-qualifying capital instruments exceeding the 25% limit are includable in Tier 2 capital.

- Non-qualifying capital instruments issued prior to May 19, 2010 are not permanently grandfathered in Tier 1 capital and must be fully phased out of Tier 1 capital by January 1, 2016.
- Non-qualifying capital instruments that are phased out of Tier 1 capital are permanently grandfathered in Tier 2 capital.

* Indicates total consolidated assets as of December 31, 2009.

U.S. Basel I

Tier 1 Capital

Common Stock and related surplus, retained earnings

Non-Cumulative Perpetual Preferred Stock

Qualifying Minority Interests (issued by consolidated depository institution or foreign bank subsidiaries)

Restricted Elements (limited to 25% of Tier 1*)

Cumulative Perpetual Preferred Stock

Trust Preferred Securities

Tier 2 Capital

Restricted Elements exceeding 25% of Tier 1*

Subordinated Debt

Qualifying Minority Interests

U.S. Basel III

Common Equity Tier 1 Capital

Common Stock and related surplus, retained earnings

Qualifying Minority Interests (issued by consolidated depository institution or foreign bank subsidiaries)

Additional Tier 1 Capital

Non-Cumulative Perpetual Preferred Stock

Qualifying Minority Interests

Tier 2 Capital

Cumulative Perpetual Preferred Stock

Trust Preferred Securities

Subordinated Debt

Qualifying Minority Interests

Permanently grandfathered in Tier 2 capital: Non-qualifying capital instruments issued before May 19, 2010 by $\geq \$15$ billion depository institution holding companies that are **not** advanced approaches banking organizations

Non-qualifying capital instruments issued before May 19, 2010 by **advanced approaches banking organizations** that do not meet the U.S. Basel III eligibility criteria for Tier 2 capital will be phased out of regulatory capital altogether by January 1, 2022

* Under U.S. Basel I rules, the amount of restricted elements that an internationally active banking organization may include in its Tier 1 capital is limited to 15% of its Tier 1 capital.

Capital Conservation Buffer

- U.S. Basel III introduces a capital conservation buffer of Common Equity Tier 1 capital above the minimum risk-based capital requirements.
- The buffer must be maintained to avoid:
 - Limitations on capital distributions (e.g., repurchases of capital instruments or dividend or interest payments on capital instruments); and
 - Limitations on discretionary bonus payments to executive officers such as CEO, president, CFO, CIO, CLO and heads of major lines of business.
- As a banking organization dips further below its capital conservation buffer, it will be subject to increasingly stringent limitations on capital distributions and bonus payments:

Capital Conservation Buffer	Maximum payout ratio (as a % of eligible retained income)
Buffer > 2.5%	No limit imposed under capital conservation buffer framework
2.5% ≥ Buffer > 1.875%	Up to 60% of eligible retained income
1.875% ≥ Buffer > 1.25%	Up to 40% of eligible retained income
1.25% ≥ Buffer > 0.625%	Up to 20% of eligible retained income
0.625% ≥ Buffer	No capital distributions or discretionary bonus payments allowed

- No exemption for S-corporation banking organizations (i.e., shareholders may face pass-through taxation without payment of full dividend).

Capital Conservation Buffer (*cont.*)

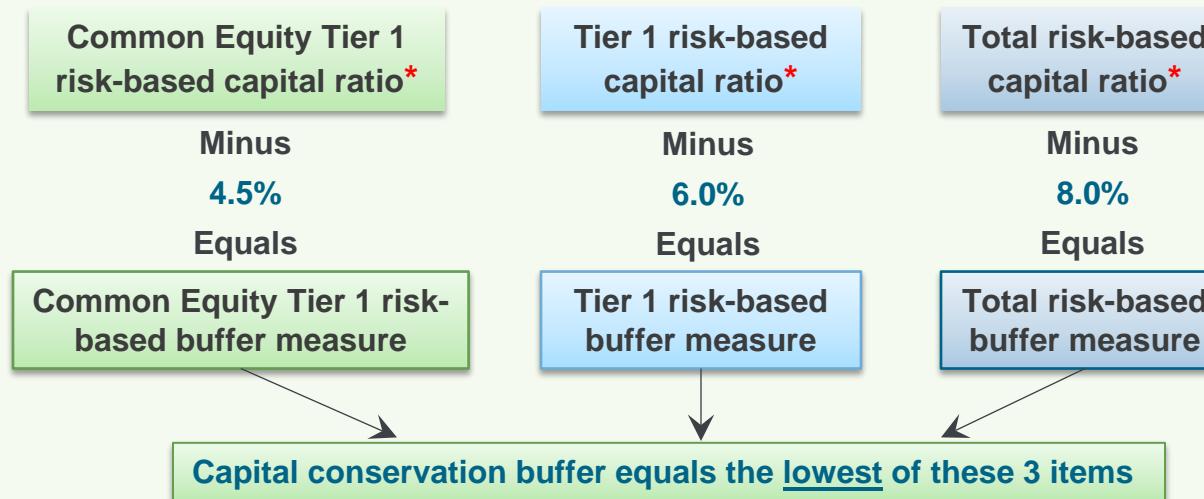
- Maximum dollar amount that a banking organization is permitted to pay out in the form of capital distributions and discretionary bonus payments during the **current** calendar quarter

Maximum payout amount = maximum payout ratio x eligible retained income

- The calculation of the maximum payout amount is made as of the last day of the **previous** calendar quarter and any resulting restrictions apply during the current calendar quarter.
- Compliance with the capital conservation buffer is determined prior to any capital distribution or discretionary bonus payment.
- Accordingly, a banking organization with a capital buffer of > 2.5% is not subject to any restrictions on capital distributions or discretionary bonus payments even if such distribution or payment would result in a capital buffer of ≤ 2.5% in the current calendar quarter.
- However, to remain free of restrictions for any subsequent quarter, the banking organization must restore the buffer to >2.5% prior to any capital distribution or discretionary bonus payment in any subsequent quarter.
- The final rule clarifies that a capital distribution does not include a redemption or repurchase of a capital instrument if the banking organization fully replaces that instrument by issuing another eligible capital instrument of the same or better quality (i.e., more subordinate) and such issuance is completed within the same calendar quarter that the redemption or repurchase is announced.

Capital Conservation Buffer (cont.)

- Although the capital conservation buffer can only be met with Common Equity Tier 1 capital, it must be calculated relative to each risk-based capital ratio:

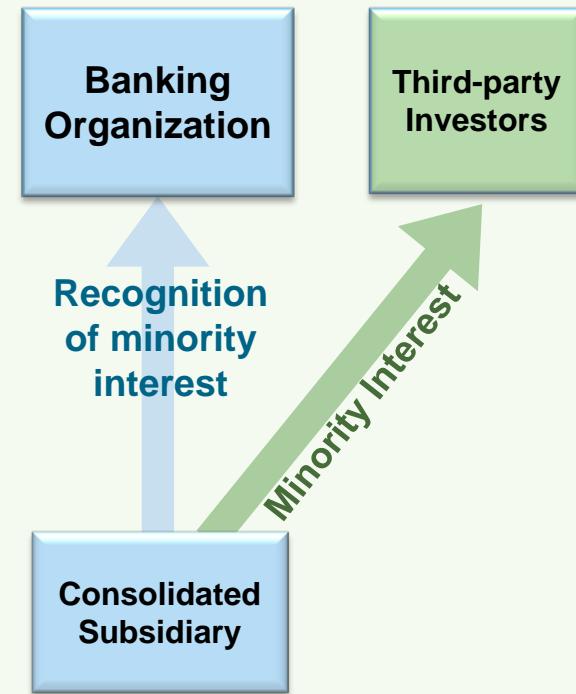


* An advanced approaches banking organization that has been authorized to exit its parallel run process must use the **lower** of each capital ratio calculated under the standardized approach and the advanced approaches to calculate its capital conservation buffer.

- Countercyclical Buffer:** If deployed, the countercyclical buffer will **only** apply to advanced approaches banking organizations, and will function as an extension of the capital conservation buffer.
- G-SIB Surcharge:** Under international Basel III, the G-SIB surcharge also functions as an extension of the capital conservation buffer. The Federal Reserve has not yet proposed to implement the G-SIB surcharge.

Limited Recognition of Minority Interests

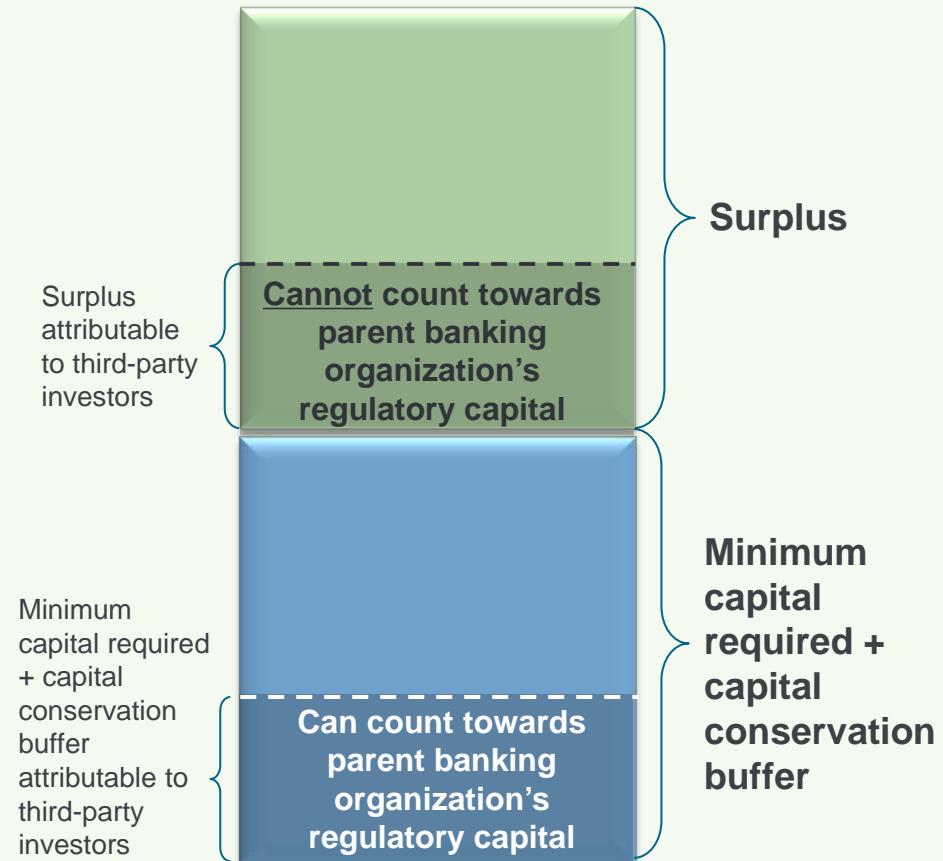
- Minority interests are capital instruments issued by a **consolidated subsidiary** of a banking organization to third-party investors.
- U.S. Basel III places quantitative and qualitative limits on the ability of a banking organization to count minority interests towards its consolidated regulatory capital.
- **Qualitative Limit:** The capital instrument giving rise to the minority interest must, if it were issued by the banking organization directly, meet all of the eligibility criteria for the relevant tier of capital.
 - Under the minority interest rules, only Common Equity Tier 1 capital issued by a **U.S. depository institution or foreign bank** subsidiary to third-party investors can count towards the parent banking organization's consolidated Common Equity Tier 1 capital.



Limited Recognition of Minority Interests (cont.)

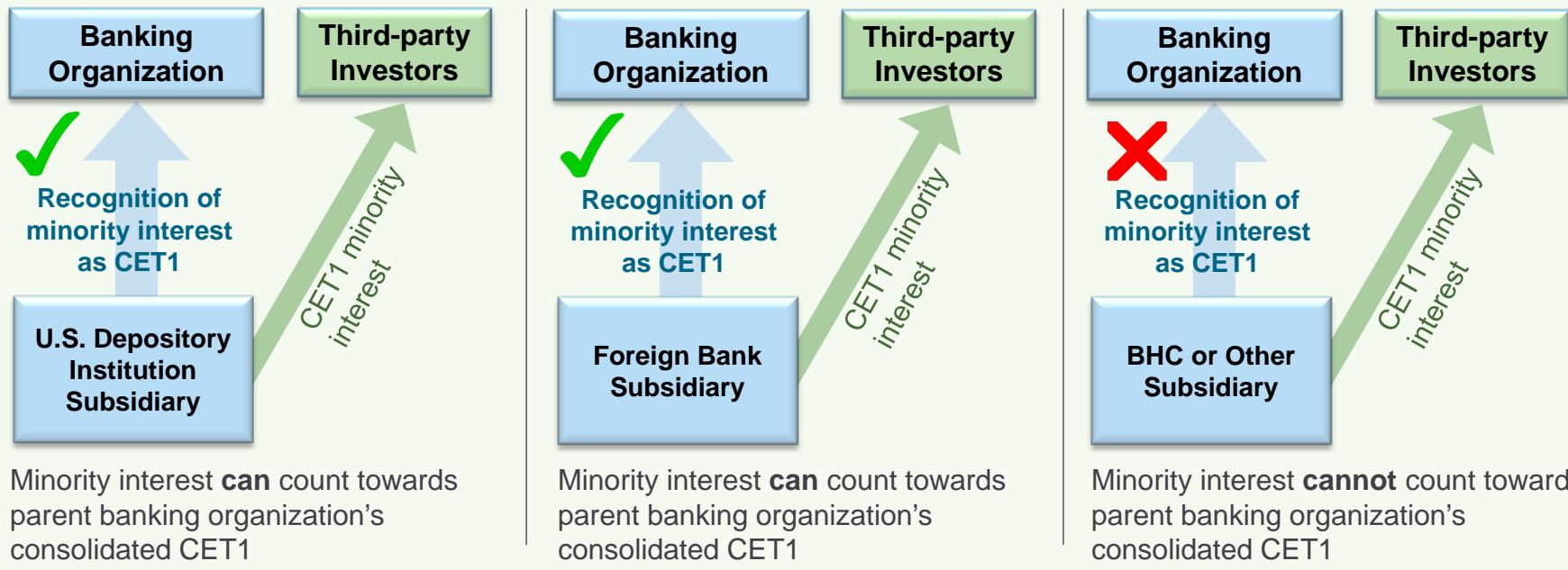
- **Quantitative Limit:** The amount of a subsidiary's **surplus** capital that is attributable to third-party investors **cannot** count towards the parent banking organization's consolidated regulatory capital.
 - **Surplus** = amount by which subsidiary's actual capital **exceeds** the subsidiary's minimum capital requirements + capital conservation buffer (or equivalent standards established by the subsidiary's home country supervisor).
 - If a subsidiary is **not** subject to capital adequacy standards "similar" to those of the parent banking organization, the parent banking organization must **assume** that the capital adequacy standards of the parent banking organization apply to the subsidiary.

Consolidated Subsidiary's Actual Capital



Limited Recognition of Minority Interests (cont.)

- Under the U.S. Basel III minority interest rules, only Common Equity Tier 1 capital (CET1) issued by a **U.S. depository institution or foreign bank** subsidiary to third-party investors can count towards the parent banking organization's consolidated CET1 (subject to quantitative limit).
- CET1 issued by any other type of consolidated subsidiary to third-party investors **cannot** count towards the parent banking organization's consolidated CET1, but can count towards the parent's consolidated Additional Tier 1 capital (subject to quantitative limit).



Regulatory Adjustments to and Deductions from Capital

- Most of the new regulatory deductions from and adjustments to capital apply to Common Equity Tier 1 capital.
- Purpose of such deductions and adjustments is to focus bank regulatory capital on tangible common equity.
- Deductions from Common Equity Tier 1 capital include, among other items:
 - Goodwill and other intangibles, other than mortgage servicing assets (MSAs), net of associated deferred tax liabilities (DTLs);
 - Deferred tax assets (DTAs) that arise from operating loss and tax credit carryforwards, net of associated DTLs; and
 - Defined benefit pension fund net assets, net of associated DTLs*
- U.S. Basel III provides for limited recognition in Common Equity Tier 1 capital of the following items, subject to a 10% individual threshold and a 15% aggregate threshold based on a banking organization's Common Equity Tier 1 capital (after applying certain regulatory adjustments and deductions):
 - DTAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of any related valuation allowances and net of DTLs;
 - MSAs net of associated DTLs; and
 - Significant investments in unconsolidated financial institutions in the form of common stock, net of associated DTLs.
- As proposed, adjustments would have included unrealized gains and losses on AFS debt securities (i.e., recognition of AOCI)

* IDIs are not required to deduct defined benefit pension fund net assets.

AOCl Opt-out for Non-Advanced Approaches Banking Organizations

- AOCl includes unrealized gains and losses on available-for-sale (AFS) securities.

U.S. Basel I Capital Rules

- Unrealized gains and losses on AFS debt securities are not included in regulatory capital, i.e., these unrealized gains and losses are filtered out of regulatory capital (AOCl filter).
- Unrealized losses on AFS equity securities are included in Tier 1 capital.
- Up to 45% of any unrealized gains on AFS equity securities are included in Tier 2 capital.

Opt-Out Election for Non-Advanced Approaches Banking Organizations

- Non-advanced approaches banking organizations can make a one-time, **permanent** election to continue AOCl treatment under U.S. Basel I capital rules.
- Election must be made in first regulatory report after the banking organization becomes subject to the U.S. Basel III final rule.
- If a top-tier banking organization makes an AOCl opt-out election, any consolidated banking organization subsidiary must make the **same** AOCl opt-out election as the parent.

Advanced Approaches and Non-Opt-Out Banking Organizations

- Unrealized gains and losses on all AFS securities will flow through to Common Equity Tier 1 capital.

AOCI Opt-out Election: M&A Consequences

- In case of M&A transaction between two AOCI opt-out banks: surviving bank must continue with AOCI opt-out (unless it is an advanced approaches banking organization)
- In case of M&A transaction between two banks that have each **not** made an AOCI opt-out election: surviving bank may not make an AOCI opt-out election
- In case of M&A transaction between an AOCI opt-out bank and a bank that has not made an AOCI opt-out election: surviving bank must decide whether to make AOCI opt-out election by first regulatory reporting date following transaction
- Banking supervisor has discretion to allow new AOCI opt-out election in case of a transaction between an AOCI opt-out bank and a bank that has not made an AOCI opt-out election where the transaction did **not** involve all or substantially all of the assets or voting stock of acquired bank

AOCI Adjustments to Common Equity Tier 1 Capital

A banking organization that makes an AOCI **opt-out election** must adjust its Common Equity Tier 1 capital as follows:

+ Additions to CET1:	⌘ Subtractions from CET1:
Any net unrealized losses on AFS securities	Any net unrealized gains on AFS securities
	Any unrealized loss on AFS preferred stock classified as an equity security under GAAP and equity exposures
Any accumulated net loss on cash-flow hedges	Any accumulated net gain on cash-flow hedges
	Any amounts recorded in AOCI attributed to defined benefit postretirement plans resulting from the initial and subsequent application of the relevant GAAP standards that pertain to such plans
Any net unrealized losses on held-to-maturity securities that are included in AOCI	Any net unrealized gains on held-to-maturity securities that are included in AOCI

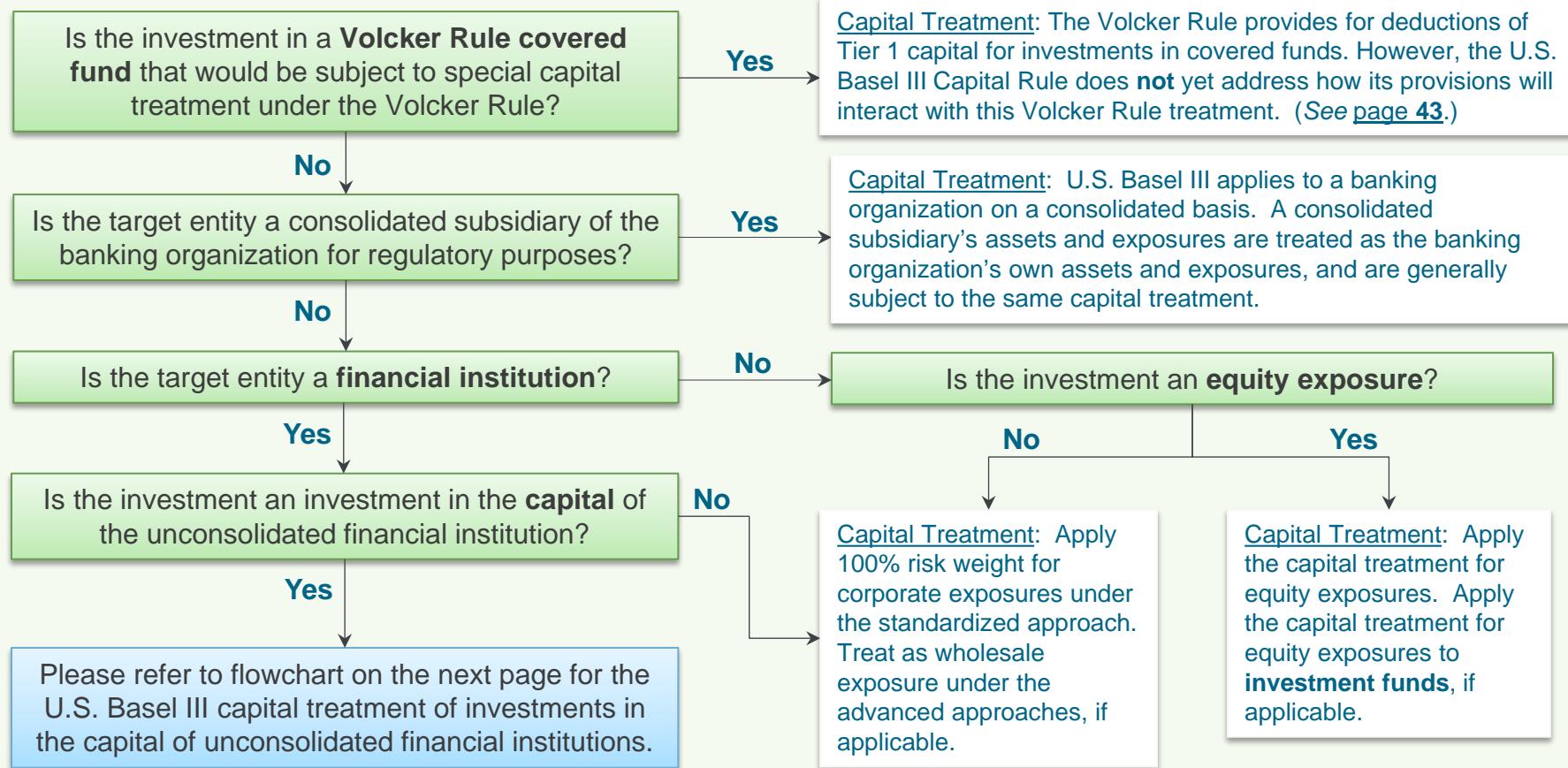
Tier 2 capital: A banking organization that makes an AOCI opt-out election may incorporate up to 45% of any net unrealized gains on AFS preferred stock classified as an equity security under GAAP and equity exposures into its Tier 2 capital

An **advanced approaches banking organization** and a banking organization that does **not opt-out** must adjust its Common Equity Tier 1 capital as follows, net of associated deferred tax effects:

+ Additions to CET1:	⌘ Subtractions from CET1:
Any accumulated net loss on cash flow hedges included in AOCI that relate to the hedging of items that are not recognized at fair value on the balance sheet	Any accumulated net gain on cash flow hedges included in AOCI that relate to the hedging of items that are not recognized at fair value on the balance sheet

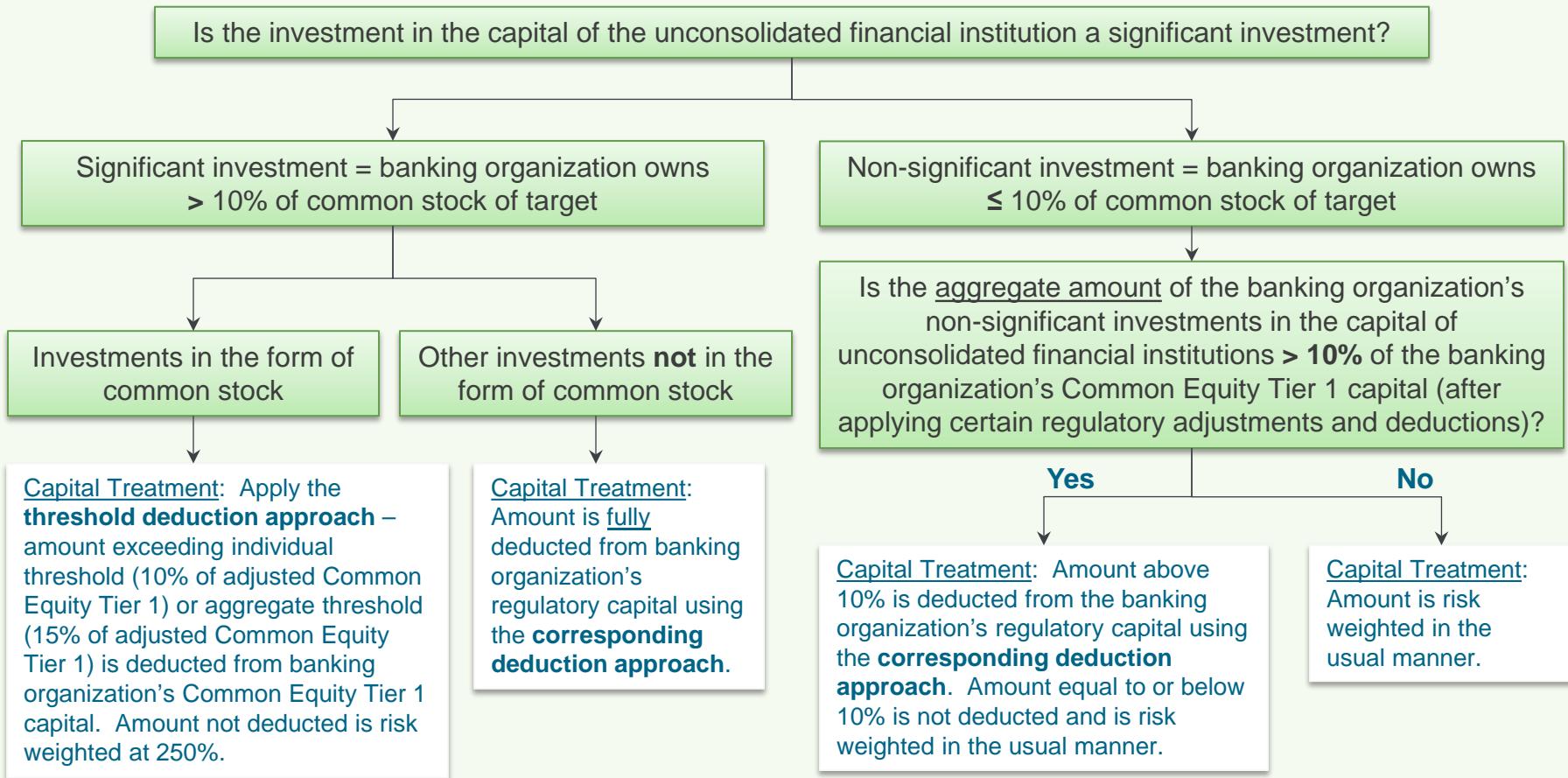
Flowchart: Capital Treatment of Investments in Entities

Terms in **bold** are defined in [pages 40-43](#). Flowchart assumes U.S. Basel III rules are fully phased in.



Flowchart: Capital Treatment of Investments in the Capital of Unconsolidated Financial Institutions

Terms in **bold** are defined in [pages 40-43](#). Flowchart assumes U.S. Basel III rules are fully phased in.



Capital Treatment of Investments in Entities: Key Definitions

Term	Definition
Capital of an unconsolidated financial institution	<ul style="list-style-type: none">▪ An investment in the capital of an unconsolidated financial institution means a net long position:<ul style="list-style-type: none">▪ in an instrument that is recognized as capital for regulatory purposes by the primary supervisor of an unconsolidated regulated financial institution; or▪ in an instrument that is part of the GAAP equity of an unconsolidated unregulated financial institution.▪ An investment in the capital of an unconsolidated financial institution includes direct, indirect, and synthetic exposures to such instruments, but excludes underwriting positions held by the banking organization for 5 business days or less.▪ Indirect exposure means an exposure that arises from the banking organization's investment in an investment fund which holds investment in the capital of an unconsolidated financial institution.
Corresponding deduction approach	<ul style="list-style-type: none">▪ Under the corresponding deduction approach, a banking organization must make deductions from the component of capital (i.e., Common Equity Tier 1, Tier 1, Tier 2) for which the underlying instrument would qualify if it were issued by the banking organization itself.
Equity exposure	<ul style="list-style-type: none">▪ An equity exposure includes, among other things, a security or instrument (whether voting or non-voting) that represents a direct or an indirect ownership interest in, and is a residual claim on, the assets and income of an unconsolidated company, provided that the ownership interest is not a securitization exposure.

Capital Treatment of Investments in Entities: Key Definitions (cont.)

Term	Definition
	<p>Financial institutions</p> <ul style="list-style-type: none">▪ BHC, SLHC, nonbank SIFI, depository institution, foreign bank, credit union, industrial loan company, industrial bank, insurance company, securities holding company, SEC-registered broker-dealer, futures commission merchant, swap dealer, security-based swap dealer, designated financial market utility▪ Any non-U.S. entity that is supervised and regulated in a manner similar to the entities described above▪ Any other company of which the banking organization owns (A) an investment in GAAP equity instruments of the company with an adjusted carrying value or exposure amount $\geq \\$10$ million; or (B) $>10\%$ of the company's issued and outstanding common shares (or similar equity interest), which is "predominantly engaged" (85% or more of consolidated annual gross revenues or consolidated total assets for either of two most recent calendar quarters) in any of the following activities:<ul style="list-style-type: none">▪ Lending money, securities or other financial instruments, including servicing loans;▪ Insuring, guaranteeing, indemnifying against loss, harm, damage, illness, disability, or death, or issuing annuities;▪ Underwriting, dealing in, making a market in, or investing as principal in securities or other financial instruments; or▪ Asset management activities (not including investment or financial advisory activities).▪ Any other company that the banking organization's primary federal banking regulator determines is a financial institution based on activities similar in scope, nature or operation to the entities described above <p>Exclusions</p> <ul style="list-style-type: none">▪ GSEs, small business investment companies, community development financial institutions, entities the investment in which would qualify as a community development investment, employee benefit plans▪ Entities registered with the SEC under the Investment Company Act of 1940 or foreign equivalents▪ Investment or financial advisers (whether they provide discretionary or non-discretionary advisory services)

Capital Treatment of Investments in Entities: Key Definitions (cont.)

Term	Definition
Investment fund	<ul style="list-style-type: none">▪ A company (corporation, partnership, LLC, business trust, SPE, association or similar organization):<ul style="list-style-type: none">(1) where all or substantially all of the assets of the company are financial assets; <i>and</i>(2) that has no material liabilities
Threshold deduction approach	<ul style="list-style-type: none">▪ The threshold deduction treatment provides for limited recognition as Common Equity Tier 1 capital of the following 3 items, subject to a 10% individual limit and a 15% aggregate limit based on the banking organization's Common Equity Tier 1 capital (after applying certain regulatory adjustments):<ul style="list-style-type: none">▪ DTAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of any related valuation allowances and net of DTLs;▪ MSAs net of associated DTLs; <i>and</i>▪ Significant investments in unconsolidated financial institutions in the form of common stock, net of associated DTLs.▪ If an item exceeds the 10% individual limit, the excess is fully deducted from Common Equity Tier 1. If the 3 items combined (excluding amounts deducted after applying the individual 10% limit) exceeds the 15% aggregate limit, the excess is deducted from Common Equity Tier 1.▪ The amount of the 3 items not deducted from Common Equity Tier 1 is risk weighted at 250%.▪ DTAs that arise from temporary differences that a banking organization may realize through net operating loss carrybacks are not subject to the deduction thresholds and are subject to a 100% risk weight.

Capital Treatment of Investments in Entities: Key Definitions (cont.)

Term	Definition
Volcker Rule covered fund	<ul style="list-style-type: none">▪ Subject to exceptions and a conformance period, the Volcker Rule prohibits banking entities from, among other things, investing in or sponsoring “covered funds.”<ul style="list-style-type: none">▪ The Volcker Rule includes a broad definition of “covered fund” that captures hedge funds, private equity funds, commodity pools, other similar funds and many other special purpose vehicles.▪ Capital treatment under Volcker Rule: Under the Volcker Rule, the aggregate value of a banking entity’s ownership interests in all covered funds acquired or retained under the asset management, asset-backed securities issuer, or underwriting and market making exemptions must be deducted from a banking entity’s Tier 1 capital.<ul style="list-style-type: none">▪ The investments or holdings are valued at the greater of historical cost (plus earnings) and fair market value.▪ Uncertain interaction with U.S. Basel III Capital Rules:<ul style="list-style-type: none">▪ In the U.S. Basel III proposals, the U.S. banking agencies stated that any investment in a covered fund that is subject to special capital treatment under final Volcker Rule regulations would not also be subject to special capital treatment under U.S. Basel III. However, this position was not restated in the final U.S. Basel III Capital Rule.▪ While the U.S. Basel III proposals expressly included Volcker Rule covered funds in the definition of financial institution, the final U.S. Basel III Capital Rule removes that reference. Certain covered funds, however, may still satisfy the “predominantly engaged” prong of the definition of “financial institution.”▪ The preamble to the Volcker Rule states that the “Federal Banking agencies intend to review the interaction between the requirements of [the Volcker Rule] and the requirements of the regulatory capital rule and expect to propose steps to reconcile the two rules.”▪ Unclear whether Volcker Rule deduction from Tier 1 capital reduces Tier 1 capital for U.S. Basel III purposes.

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
Cash	0%	0%
Exposures to, and portions of exposures that are directly and unconditionally guaranteed by, the U.S. government, its agencies and the Federal Reserve	0% <ul style="list-style-type: none">▪ This category includes the portion of a deposit or other exposure insured or otherwise unconditionally guaranteed by the FDIC or the National Credit Union Administration.	0% <ul style="list-style-type: none">▪ This category includes the portion of a deposit or other exposure insured or otherwise unconditionally guaranteed by the FDIC or the National Credit Union Administration.
Portions of exposures that are <u>conditionally</u> guaranteed by the U.S. government, its agencies and the Federal Reserve	20% <ul style="list-style-type: none">▪ This category includes the portion of an exposure that is conditionally guaranteed by the FDIC or National Credit Union Administration.	20% <ul style="list-style-type: none">▪ This category includes the portion of an exposure that is conditionally guaranteed by the FDIC or National Credit Union Administration.

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach																			
Exposures to foreign governments and their central banks	<ul style="list-style-type: none"> ▪ 0% for direct and unconditional claims on OECD governments ▪ 20% for conditional claims on OECD governments ▪ 100% for claims on non-OECD governments that entail some degree of transfer risk 	<p>Risk weight depends on the sovereign's OECD Country Risk Classification (CRC)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Risk Weight</th> </tr> </thead> <tbody> <tr> <td rowspan="6">Sovereign CRC</td> <td>0-1</td> <td>0%</td> </tr> <tr> <td>2</td> <td>20%</td> </tr> <tr> <td>3</td> <td>50%</td> </tr> <tr> <td>4-6</td> <td>100%</td> </tr> <tr> <td>7</td> <td>150%</td> </tr> <tr> <td>OECD Member with No CRC</td> <td>0%</td> </tr> <tr> <td>Non-OECD Member with No CRC</td> <td>100%</td> </tr> <tr> <td>Sovereign Default</td> <td>150%</td> </tr> </tbody> </table>		Risk Weight	Sovereign CRC	0-1	0%	2	20%	3	50%	4-6	100%	7	150%	OECD Member with No CRC	0%	Non-OECD Member with No CRC	100%	Sovereign Default	150%
	Risk Weight																				
Sovereign CRC	0-1	0%																			
	2	20%																			
	3	50%																			
	4-6	100%																			
	7	150%																			
	OECD Member with No CRC	0%																			
Non-OECD Member with No CRC	100%																				
Sovereign Default	150%																				
Exposures to certain supranational entities and multilateral development banks (MDBs)	20%	0%																			
Exposures to U.S. government-sponsored entities (GSEs)	20%	20%																			

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach																																													
Exposures to U.S. public sector entities (PSEs), including U.S. states and municipalities	<ul style="list-style-type: none"> ▪ 20% for general obligations ▪ 50% for revenue obligations 	<ul style="list-style-type: none"> ▪ 20% for general obligations ▪ 50% for revenue obligations 																																													
Exposures to foreign PSEs	<ul style="list-style-type: none"> ▪ 20% for general obligations of states and political subdivisions of OECD countries ▪ 50% for revenue obligations of states and political subdivisions of OECD countries ▪ 100% for all obligations of states and political subdivisions of non-OECD countries 	<p>Risk weight depends on the home country's CRC</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Risk Weight for General Obligations</th> </tr> <tr> <td>Sovereign CRC</td> <td>0-1</td> <td>20%</td> </tr> </thead> <tbody> <tr> <td></td> <td>2</td> <td>50%</td> </tr> <tr> <td></td> <td>3</td> <td>100%</td> </tr> <tr> <td></td> <td>4-7</td> <td>150%</td> </tr> <tr> <td colspan="3">OECD Member with No CRC</td></tr> <tr> <td colspan="3">Non-OECD Member with No CRC</td></tr> <tr> <td colspan="3">Sovereign Default</td></tr> </tbody> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3">Risk Weight for Revenue Obligations</th> </tr> <tr> <td>Sovereign CRC</td> <td>0-1</td> <td>50%</td> </tr> </thead> <tbody> <tr> <td></td> <td>2-3</td> <td>100%</td> </tr> <tr> <td></td> <td>4-7</td> <td>150%</td> </tr> <tr> <td colspan="3">OECD Member with No CRC</td></tr> <tr> <td colspan="3">Non-OECD Member with No CRC</td></tr> <tr> <td colspan="3">Sovereign Default</td></tr> </tbody> </table>	Risk Weight for General Obligations			Sovereign CRC	0-1	20%		2	50%		3	100%		4-7	150%	OECD Member with No CRC			Non-OECD Member with No CRC			Sovereign Default			Risk Weight for Revenue Obligations			Sovereign CRC	0-1	50%		2-3	100%		4-7	150%	OECD Member with No CRC			Non-OECD Member with No CRC			Sovereign Default		
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U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach																							
Exposures to U.S. depository institutions and credit unions	20%	20%																							
Exposures to foreign banks	<ul style="list-style-type: none"> ▪ 20% for claims on banks in OECD countries ▪ 20% for short-term claims on banks in non-OECD countries ▪ 100% for long-term claims on banks in non-OECD countries 	<p>Risk weight depends on the home country's CRC</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;">Risk Weight</th> </tr> </thead> <tbody> <tr> <td>Sovereign CRC</td> <td style="text-align: center;">0-1</td> <td style="text-align: center;">20%</td> </tr> <tr> <td></td> <td style="text-align: center;">2</td> <td style="text-align: center;">50%</td> </tr> <tr> <td></td> <td style="text-align: center;">3</td> <td style="text-align: center;">100%</td> </tr> <tr> <td></td> <td style="text-align: center;">4-7</td> <td style="text-align: center;">150%</td> </tr> <tr> <td>OECD Member with No CRC</td> <td></td> <td style="text-align: center;">20%</td> </tr> <tr> <td>Non-OECD Member with No CRC</td> <td></td> <td style="text-align: center;">100%</td> </tr> <tr> <td>Sovereign Default</td> <td></td> <td style="text-align: center;">150%</td> </tr> </tbody> </table>		Risk Weight	Sovereign CRC	0-1	20%		2	50%		3	100%		4-7	150%	OECD Member with No CRC		20%	Non-OECD Member with No CRC		100%	Sovereign Default		150%
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Sovereign Default		150%																							
Exposures to qualifying securities firms	20%	100%																							
Corporate exposures	100%	100%																							

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
Retail exposures	100%	100%
Residential mortgage exposures	<ul style="list-style-type: none">▪ 50% for a first-lien residential mortgage exposure that is:<ul style="list-style-type: none">▪ secured by a property that is either owner-occupied or rented;▪ made in accordance with prudent underwriting standards;▪ not 90 days or more past due or carried in nonaccrual status; and▪ not restructured or modified (unless modified or restructured solely pursuant to the U.S. Treasury's Home Affordable Mortgage Program).▪ 100% for all other residential mortgage exposures	<ul style="list-style-type: none">▪ Retains U.S. Basel I capital treatment▪ 50% for a first-lien residential mortgage exposure that is:<ul style="list-style-type: none">▪ secured by a property that is either owner-occupied or rented;▪ made in accordance with prudent underwriting standards;▪ not 90 days or more past due or carried in nonaccrual status; and▪ not restructured or modified (unless modified or restructured solely pursuant to the U.S. Treasury's Home Affordable Mortgage Program).▪ 100% for all other residential mortgage exposures

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
High-volatility commercial real estate (HVCRE) loans	100%	150% <ul style="list-style-type: none">▪ The definition of HVCRE only captures a specific subset of acquisition, development and construction loans; not all commercial real estate loans
Past due exposures	Risk weight of a loan generally does not change if the loan becomes past due, except for certain residential mortgage loans.	150% risk weight applies to the portion of an exposure that is not guaranteed or secured and that is not a sovereign exposure or a residential mortgage exposure if it is 90 days or more past due or on nonaccrual.
OTC derivatives	<ul style="list-style-type: none">▪ Risk weight depends on category of counterparty category (e.g., bank, securities firm or general corporation), subject to a 50% risk weight ceiling.▪ Current Exposure Method (CEM): Exposure amount for a derivative is the sum of the current credit exposure (greater of zero and mark-to-market value) and potential future exposure (effective notional amount multiplied by a credit conversion factor based on the type of derivative and the remaining maturity). The CEM takes into account, to a limited extent, the effects of netting under qualifying master netting agreements.	<ul style="list-style-type: none">▪ Removes the 50% risk weight ceiling for OTC derivatives.▪ Retains the CEM▪ Unlike the standardized approach under international Basel II, the U.S. Basel III standardized approach does not permit using the internal models methodology (IMM) to calculate exposure amount of derivatives.▪ International Developments: The Basel Committee has proposed a non-internal model method to replace the CEM. The U.S. banking agencies may consider implementing this new method after it is finalized by the Basel Committee.

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
Collateralized transactions, including derivatives and securities financing transactions	<ul style="list-style-type: none">▪ Simple approach: With respect to the portion of a transaction that is secured by eligible collateral, substitute risk weight associated with collateral for risk weight associated with the counterparty, sometimes subject to a 20% risk weight floor.	<ul style="list-style-type: none">▪ Retains the simple approach subject to a general risk weight floor of 20%▪ Collateral haircut approach: In determining the exposure amount of a securities financing transaction (referred to in the bank capital rules as “repo-style transactions”), eligible margin loan or collateralized derivative transaction, a banking organization may take into account the market value of eligible collateral securing such transaction, subject to supervisory or own estimates of haircuts.▪ Collateral haircut approach also takes into account qualifying master netting agreements.
Cleared derivatives and securities financing transactions	<ul style="list-style-type: none">▪ No separate capital framework for cleared transactions▪ Exchange-traded derivative contracts requiring daily margining effectively assigned a 0% risk weight▪ Risk weight otherwise depends on the counterparty category (e.g., bank, securities firm or general corporation) to which the central counterparty belongs	<ul style="list-style-type: none">▪ Contains a new capital framework for cleared derivative and securities financing transactions, which is broadly based on the Basel Committee’s July 2012 interim framework.▪ Provides preferential capital treatment for cleared transactions (as compared to requirements for non-cleared transactions) with qualifying central counterparties (CCPs): 2% or 4% risk weight for trade exposures to qualifying CCPs (QCCPs)▪ Requires a clearing member to calculate a capital charge for its default fund contributions to the CCP▪ International Developments: The Basel Committee has proposed further revisions to the cleared transactions framework

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
Securitization exposures	<ul style="list-style-type: none">▪ Ratings-based approach: Risk weight depends on the external credit rating assigned to the securitization exposure▪ Gross-up approach: RWA amount is calculated using the risk weight of the underlying assets amount of the position and the full amount of the assets supported by the position	<ul style="list-style-type: none">▪ General 20% risk weight floor for securitization exposures▪ Retains the gross-up approach▪ Replaces the ratings-based approach with the simplified supervisory formula approach (SSFA)▪ The SSFA takes into account, among other things, the risk weight applicable to the underlying exposures, the relative position of the securitization exposure in the structure and measures of delinquency and loss on the securitized assets. Under the SSFA, certain junior tranches may be assigned a risk weight of 1,250%.▪ Due diligence requirement: A banking organization is required to demonstrate, to the satisfaction of its primary federal banking regulator, a comprehensive understanding of the features of a securitization exposure that would materially affect its performance. Failure to satisfy this requirement will result in a 1,250% risk weight for the securitization exposure.▪ International developments: The Basel Committee has proposed revisions to the capital framework for securitization exposures.

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
Equity exposures	<ul style="list-style-type: none">▪ Deduct a portion of non-financial equity investments from Tier 1 capital, based on the aggregate adjusted carrying value of all non-financial equity investments held directly or indirectly by the banking organization as a percentage of its Tier 1 capital.▪ Equity exposures that are not deducted generally attract a 100% risk weight.	<ul style="list-style-type: none">▪ 0%: Equity exposures to a sovereign, certain supranational entities or an MDB whose debt exposures are eligible for 0% risk weight▪ 20%: Equity exposures to a PSE▪ 100%: Equity exposures to community development investments and small business investment companies, effective portion of a hedge pair and non-significant equity investments▪ 250%: Significant investments in the capital of unconsolidated financial institutions that are not deducted from capital▪ 300%: Publicly-traded equity exposures, including the ineffective portion of a hedge pair▪ 400%: Non-publicly traded equity exposures▪ 600%: Equity exposures to certain investment firms that would otherwise meet the definition of “traditional securitization” and have greater than immaterial leverage

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
Equity exposures to investment funds	<ul style="list-style-type: none">▪ General approach: Risk weight is the same as the highest risk weight investment the fund is permitted to hold▪ Optional approach: May assign risk weights pro rata according to the investment limits in the fund's prospectus. If the sum of the investment limits in the fund's prospectus exceeds 100%, risk weights must be assigned in descending order▪ 20% risk weight floor for equity exposures to investment funds▪ If a fund engages in any activities that appear speculative in nature or has any other characteristics that are inconsistent with the preferential risk weight assigned to the fund's assets, then equity exposures to the fund are assigned a 100% risk weight.	<ul style="list-style-type: none">▪ Full look-through approach: Aggregate RWA amount of the exposures held by the fund (as if held directly by the banking organization) multiplied by the banking organization's proportional ownership share of the fund▪ Simple modified look-through approach: Multiply the banking organization's exposure by the risk weight of the highest risk weight asset in the fund. Derivatives held by the fund that are used for hedging and that do not constitute a material portion of the fund's exposures may be excluded.▪ Alternative modified look-through approach: Assign risk weight on a pro rata basis according to the investment limits in the fund's prospectus. If the sum of the investment limits in the fund's prospectus exceeds 100%, risk weights must be assigned in descending order. Derivatives held by the fund that are used for hedging and that do not constitute a material portion of the fund's exposures may be excluded.▪ 20% risk weight floor for equity exposures to investment funds▪ International developments: The Basel Committee has proposed revisions to the capital framework for equity exposures to investment funds

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach										
<p>Unsettled transactions (excludes:</p> <ul style="list-style-type: none"> (1) cleared transactions that are marked-to-market daily and subject to daily receipt and payment of variation margin; (2) repo-style transactions; (3) one-way cash payments on OTC derivative contracts; or (4) transactions with a contractual settlement period that is longer than the normal settlement period, which is defined as the lesser of market standard or 5 business days) 	No specific capital treatment	<p>Delivery-versus-payment (DvP) and payment-versus-payment (PvP) transactions</p> <ul style="list-style-type: none"> ▪ ≥ 5 business days past settlement date: RWA = positive current exposure x risk weight <table border="1"> <thead> <tr> <th>Business days after settlement date</th><th>Risk Weight</th></tr> </thead> <tbody> <tr> <td>From 5 to 15</td><td>100%</td></tr> <tr> <td>From 16 to 30</td><td>625%</td></tr> <tr> <td>From 31 to 45</td><td>937.5%</td></tr> <tr> <td>46 or more</td><td>1,250%</td></tr> </tbody> </table> <p>Non-DvP and non-PvP transactions</p> <ul style="list-style-type: none"> ▪ ≤ 5 business days past the settlement date: RWA = current fair value of deliverables owed x risk weight applicable to counterparty ▪ > 5 business days past the settlement date: RWA = current fair value of deliverables owed x 1,250% risk weight 	Business days after settlement date	Risk Weight	From 5 to 15	100%	From 16 to 30	625%	From 31 to 45	937.5%	46 or more	1,250%
Business days after settlement date	Risk Weight											
From 5 to 15	100%											
From 16 to 30	625%											
From 31 to 45	937.5%											
46 or more	1,250%											
Default risk weight for items not specifically assigned to a risk weight category	100%	100%										

U.S. Basel III Standardized Risk Weights for Credit Risk: Comparison with Basel I Risk Weights (cont.)

Type of Exposure	Basel I	U.S. Basel III Standardized Approach
Conversion factors for off-balance sheet items	<ul style="list-style-type: none">▪ 0% for the unused portion of a commitment with an original maturity of one year or less, or which is unconditionally cancellable at any time▪ 10% for unused portion of an eligible asset-backed commercial paper liquidity facility with an original maturity of one year or less▪ 20% for self-liquidating, trade-related contingent items▪ 50% for the unused portion of a commitment with an original maturity of more than one year that is not unconditionally cancellable▪ 50% for transaction-related contingent items (performance bonds, bid bonds, warranties, and standby letters of credit)▪ 100% for guarantees, repurchase agreements, securities lending and borrowing transactions, financial standby letters of credit and forward agreements	<ul style="list-style-type: none">▪ 0% for the unused portion of a commitment that is unconditionally cancellable by the banking organization▪ 20% for the amount of a commitment with an original maturity of one year or less that is not unconditionally cancellable by the banking organization▪ 20% for self-liquidating trade-related contingent items, with an original maturity of one year or less▪ 50% for the amount of a commitment with an original maturity of more than one year that is not unconditionally cancellable by the banking organization▪ 50% for transaction-related contingent items (performance bonds, bid bonds, warranties, and standby letters of credit)▪ 100% for guarantees, repurchase agreements, securities lending and borrowing transactions, credit-enhancing representations and warranties that are not securitization exposures, financial standby letters of credit and forward agreements

Capital Treatment of OTC Derivatives: Current Exposure Method

- Under the U.S. Basel III standardized approach, the RWA amount for a single OTC derivative transaction or a group of OTC derivative transactions subject to a qualifying master netting agreement (netting set) is generally:

Exposure Amount x Risk Weight associated with counterparty

- Exposure amount is generally determined using the current exposure method (CEM).*

Exposure Amount for a Single OTC Derivative Transaction under the CEM

Exposure Amount = Current credit exposure + Potential future exposure

- Current credit exposure is the **greater** of (1) the mark-to-fair value of the OTC derivative and (2) zero
- Potential future exposure (PFE) is calculated by multiplying the effective notional principal amount of the OTC derivative contract by the appropriate conversion factor below

Remaining maturity	Interest rate	Foreign exchange rate and gold	Credit (investment grade reference asset)	Credit (non-investment grade reference asset)	Equity	Precious metals (except gold)	Other
1 year or less	0.00	0.01	0.05	0.10	0.06	0.07	0.10
Over 1 to 5 years	0.005	0.05	0.05	0.10	0.08	0.07	0.12
Over 5 years	0.015	0.075	0.05	0.10	0.10	0.08	0.15

Capital Treatment of OTC Derivatives: Current Exposure Method (cont.)

Exposure amount for a netting set of OTC derivatives under the CEM

Exposure Amount = Net current credit exposure + Adjusted sum of PFE amounts

- The **net** current credit exposure is the greater of **(1)** the net sum of all positive and negative mark-to-fair values of the individual derivative transactions subject to the qualifying master netting agreement and **(2)** zero.
- The adjusted sum of the PFE amounts, A_{net} , is calculated using the following formula, which takes into account the effects of netting to a limited extent:

$$A_{\text{net}} = (0.4 \times A_{\text{gross}}) + (0.6 \times NGR \times A_{\text{gross}})$$

A_{gross} = the gross PFE: the sum of the PFE amounts (as determined by multiplying the effective notional principal amount of the derivative contract by the appropriate conversion factor) for each individual derivative contract subject to the qualifying master netting agreement.

NGR = net to gross ratio: the ratio of the net current credit exposure to the gross current credit exposure. The gross current credit exposure equals the sum of the positive current credit exposures of all individual derivative contracts subject to the qualifying master netting agreement.

Special Rules for Certain Types of OTC Derivatives

- U.S. Basel III standardized approach contains special rules for determining the RWA amount of OTC credit derivatives and OTC equity derivatives.

Recognizing Collateral: Repo-style Transactions, Derivatives and Eligible Margin Loans

- Under the U.S. Basel III standardized approach, a banking organization may, subject to certain enforceability and operational requirements, recognize the credit risk mitigation benefits of **financial collateral** using:
 - the **simple approach** for any type of exposure; or
 - the **collateral haircut approach** for repo-style transactions, collateralized derivative transactions, eligible margin loans, or single-product netting sets of such transactions.
- **Repo-style transaction:** a repurchase or reverse repurchase transaction or a securities borrowing or lending transaction (including a transaction in which the banking organization acts as agent for a customer and indemnifies the customer against loss) that is:
 - based solely on liquid and readily marketable securities, cash or gold;
 - marked-to-fair value daily and subject to daily margin maintenance requirements; and
 - satisfies certain conditions regarding the transaction's legal status and enforceability.
- **Eligible margin loan:** an extension of credit in which:
 - the transaction is collateralized exclusively by liquid and readily marketable debt or equity securities or gold;
 - the collateral is marked-to-fair value daily, and the transaction is subject to daily margin maintenance requirements; and
 - the extension of credit is made under an agreement that provides the banking organization with certain rights upon the occurrence of an event of default.

Recognizing Collateral: Definition of Financial Collateral

Financial collateral means collateral:

- in the form of:
 - cash on deposit with the banking organization (including cash held for the banking organization by a third-party custodian or trustee);
 - gold bullion;
 - long-term debt securities that are not resecuritization exposures and that are investment grade;
 - short-term debt instruments that are not resecuritization exposures and that are investment grade;
 - equity securities that are publicly traded;
 - convertible bonds that are publicly traded; or
 - money market fund shares and other mutual fund shares if a price for the shares is publicly quoted daily; and
- in which the banking organization has a perfected, first-priority security interest or, outside of the United States, the legal equivalent thereof (with the exception of cash on deposit and notwithstanding the prior security interest of any custodial agent).

Recognizing Collateral: Simple Approach

- Under the simple approach, a banking organization may apply the risk weight associated with the collateral to the portion of an exposure that is secured by the fair value of financial collateral.
- The banking organization must apply the risk weight otherwise applicable to the exposure to the **uncollateralized portion** of the exposure.
- Generally, the risk weight applied to the **collateralized portion** is subject to a **20% floor**. However:
 - a 0% risk weight may be assigned to an OTC derivative that is marked-to-market on a daily basis and subject to a daily margin maintenance requirement, to the extent the contract is collateralized by **cash on deposit**
 - a 10% risk weight may be assigned to an OTC derivative that is marked-to-market daily and subject to a daily margin maintenance requirement, to the extent that the contract is collateralized by an exposure to a **sovereign that qualifies for a 0% risk weight** under the standardized approach
 - a 0% risk weight may be assigned to the collateralized portion of an exposure where the financial collateral is **(1) cash on deposit; or (2) an exposure to a sovereign that qualifies for a 0% risk weight under the standardized approach and the banking organization has discounted the fair value of the collateral by 20%**.
- **Qualification:** To qualify for the simple approach, the financial collateral must be:
 - subject to a collateral agreement for at least the life of the exposure;
 - revalued at least every six months; and
 - denominated in the same currency as the exposure (not applicable if the collateral is gold).

Recognizing Collateral: Collateral Haircut Approach

- Generally, under the collateral haircut approach, a banking organization determines the exposure amount using the following formula (applying standard supervisory haircuts or, with regulatory approval, its own estimates of haircuts) and multiplies the exposure amount by the risk weight associated with the counterparty or guarantor.

$$\text{Exposure Amount} = \max \{0, [(\Sigma E - \Sigma C) + \Sigma(E_s \times H_s) + \Sigma(E_{fx} \times H_{fx})]\}$$

Components of Collateral Haircut Approach Formula

- In the case of repo-style transactions and eligible margin loans and netting sets thereof, **ΣE** = the value of the exposure, i.e., the sum of the current fair values of all instruments, gold, and cash the banking organization has lent, sold subject to repurchase, or posted as collateral to the counterparty under the transaction or netting set.
- In the case of collateralized derivative transactions and netting sets thereof, **ΣE** = the exposure amount determined using the CEM ([see pages 56-57](#))
- ΣC** = the value of the collateral, i.e., the sum of the current fair values of all instruments, gold and cash the banking organization has borrowed, purchased subject to resale, or taken as collateral from the counterparty under the transaction or netting set.

Recognizing Collateral: Collateral Haircut Approach

(cont.)

$$\text{Exposure Amount} = \max \{0, [(\Sigma E - \Sigma C) + \Sigma(E_s \times H_s) + \Sigma(E_{fx} \times H_{fx})]\}$$

Components of Collateral Haircut Approach Formula (cont.)

- **E_s** = the **absolute value** of the net position in a given instrument or in gold. The net position = the sum of the current fair values of the instrument or gold the banking organization has lent, sold subject to repurchase, or posted as collateral to the counterparty **minus** the sum of the current fair values of that same instrument or gold the banking organization has borrowed, purchased subject to resale, or taken as collateral from the counterparty.
- **H_s** = the market price volatility haircut appropriate to the instrument or gold referenced in E_s.
- **E_{fx}** = the **absolute value** of the net position of instruments and cash in a currency that is different from the settlement currency. The net position = the sum of the current fair values of any instruments or cash in the currency the banking organization has lent, sold subject to repurchase, or posted as collateral to the counterparty **minus** the sum of the current fair values of any instruments or cash in the currency the banking organization has borrowed, purchased subject to resale, or taken as collateral from the counterparty.
- **H_{fx}** = the haircut appropriate to the mismatch between the currency referenced in E_{fx} and the settlement currency.

Recognizing Collateral: Collateral Haircut Approach

Standard Supervisory Haircuts

Standard Supervisory Haircuts

- Unless a banking organization has received prior approval from its primary federal banking regulator to use its own estimates of haircuts, it must use the standard supervisory haircuts subject to the adjustments described below.
 - For the standard supervisory market price volatility haircuts (**H_s**) for different types of instruments, [see page 65](#).
 - The standard supervisory foreign exchange rate volatility haircut (**H_{fx}**) is 8%.
- **Adjustments to Standard Supervisory Haircuts**
 - The standard supervisory haircuts, H_s and H_{fx}, are based on an assumed 10-business-day minimum holding period for derivatives and eligible margin loans
 - For repo-style transactions, H_s and H_{fx} may be multiplied by the square root of $\frac{1}{2}$ (~0.707107) to convert them to an assumed 5-business-day minimum holding period
 - If the number of trades in a netting set exceeds 5,000 at any time during a quarter, H_s and H_{fx} must be adjusted **upward** using a **20-business-day** holding period for the following quarter (except for cleared transactions)
 - For indemnified agency securities lending, each transaction between an agent and a borrower = 1 trade (regardless of number of securities lenders or number of shares)

Recognizing Collateral: Collateral Haircut Approach

Standard Supervisory Haircuts (*cont.*)

■ **Adjustments to Standard Supervisory Haircuts (*cont.*)**

- If a netting set contains one or more trades involving illiquid collateral or an OTC derivative that cannot be easily replaced, H_s and H_{fx} must be adjusted **upward** using a **20-business-day** holding period
 - Alternatively, these can be excluded from the netting set and capital requirements for the excluded trades can be calculated separately
- If over the 2 previous quarters more than 2 margin disputes on a netting set have occurred that lasted more than the assumed holding period, H_s and H_{fx} must be adjusted **upward** using a holding period that is at least twice the minimum holding period for that netting set.
- Adjustments to standard supervisory haircuts based on the length of applicable holding periods are made using a **square root of time formula**.

Recognizing Collateral: Collateral Haircut Approach

Standard Supervisory Haircuts (cont.)

Standard Supervisory Market Price Volatility Haircuts*

Residual maturity	Haircut (in percent) assigned based on:						Investment grade securitization exposures	
	Standardized risk weight for sovereign issuers			Standardized risk weight for non-sovereign issuers				
	0% risk weight	20% or 50% risk weight	100% risk weight	20% risk weight	25% risk weight	100% risk weight		
Less than or equal to 1 year	0.5	1.0	15.0	1.0	2.0	4.0	4.0	
Greater than 1 year and less than or equal to 5 years	2.0	3.0	15.0	4.0	6.0	8.0	12.0	
Greater than 5 years	4.0	6.0	15.0	8.0	12.0	16.0	24.0	
Main index equities (including convertible bonds) and gold						15.0		
Other publicly traded equities (including convertible bonds)						25.0		
Mutual funds				Highest haircut applicable to any security in which the fund can invest				
Cash collateral held						Zero		
Other exposure types						25.0		

* The supervisory haircuts in this table are based on a 10-business-day holding period.

Recognizing Collateral: Collateral Haircut Approach

Illustrative Examples

■ Repo

- Bank enters into a repo in which it receives \$100, transferring 7-year Treasury securities with a market value of \$102 and an adjusted supervisory haircut of 2.83% ($4\% \times 0.707107$).
- The exposure amount is $(\$102 - \$100) + (\$100 \times 0\%) + (\$102 \times 2.83\%) = \$4.88$

■ Securities Lending (cash collateral transaction)

- Bank lends \$100 par value 7-year Treasury securities with a market value of \$102 and receives \$100 in cash collateral. The adjusted supervisory haircut on the security is 2.83% ($4\% \times 0.707107$).
- The exposure amount is $(\$102 - \$100) + (\$100 \times 0\%) + (\$102 \times 2.83\%) = \$4.88$

■ Securities Lending (securities collateral transaction)

- Bank lends a \$100 par value 7-year Treasury security with a market value of \$101 and receives a 3-year corporate bond as collateral, with a \$100 par value and a \$102 market value.
- The adjusted supervisory haircuts on the lent and borrowed securities are 2.83% ($4\% \times 0.707107$) and 5.66% ($8\% \times 0.707107$), respectively.
- The exposure amount is $(\$101 - \$102) + (\$101 \times 2.83\%) + (\$102 \times 5.66\%) = \$7.63$

Recognizing Collateral: Collateral Haircut Approach

Illustrative Examples (cont.)

■ Reverse Repo

- Bank enters into a reverse repo in which it transfers \$100 and receives 7-year Treasury securities with a market value of \$102 and an adjusted supervisory haircut of 2.83% ($4\% \times 0.707107$).
- The exposure amount is $(\$100 - \$102) + (\$100 \times 0\%) + (\$102 \times 2.83\%) = \$0.88$

■ Securities Borrowing (cash collateral transaction)

- Bank borrows \$100 par value 7-year Treasury securities with a market value of \$102. Bank provides \$100 in cash as collateral. The adjusted supervisory haircut associated with the securities is 2.83% ($4\% \times 0.707107$).
- The exposure amount is $(\$100 - \$102) + (\$100 \times 0\%) + (\$102 \times 2.83\%) = \$0.88$

■ Securities Borrowing (securities collateral transaction)

- Bank borrows \$100 par value 7-year Treasury securities with a market value of \$101 and provides as collateral 3-year corporate bonds with a par value of \$100 and a market value of \$102.
- The adjusted supervisory haircut on the borrowed security is 2.83% ($4\% \times 0.707107$) and the adjusted supervisory haircut on the security provided as collateral is 5.66% ($8\% \times 0.707107$).
- The exposure amount is $(\$102 - \$101) + (\$101 \times 2.83\%) + (\$102 \times 5.66\%) = \$9.63$

Capital Treatment of Cleared Transactions

- U.S. Basel III contains a new capital framework for centrally cleared derivative and securities financing transactions, which is broadly based on the Basel Committee's July 2012 interim framework.*
- The framework distinguishes between:
 - Qualifying CCPs (QCCPs) and non-qualifying CCPs
 - Banking organizations that are **clients** of a clearing member and banking organizations that are **clearing members**
 - **Trade exposures** to a CCP and a clearing member's **default fund contributions** to a CCP
 - A relatively low risk weight (2% or 4%) is assigned to a banking organization's trade exposures to a QCCP
 - However, a clearing member banking organization must also calculate a capital charge for its default fund contributions to a CCP using one of two methods
 - A derivative where a clearing member banking organization faces its client (generally treated as an OTC derivative) and an offsetting derivative where a clearing member banking organization faces the CCP (generally treated as a cleared transaction)



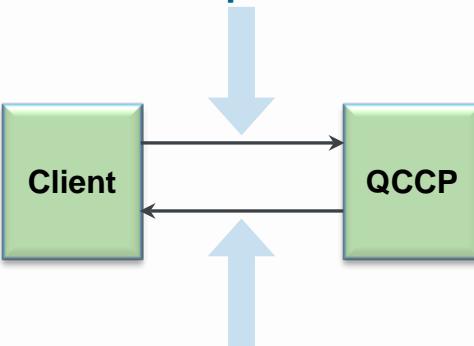
* The Basel Committee has proposed further revisions to the cleared transactions framework. The U.S. banking agencies may revisit the final rule once the Basel framework is revised.

Capital Treatment of Cleared Transactions: Examples

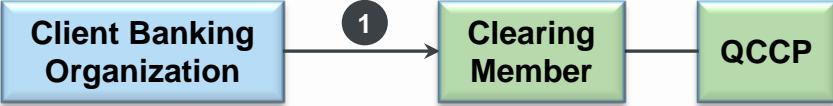
Derivative Clearing Arrangement	Capital Treatment
<p>Transaction between a clearing member banking organization and a QCCP for the banking organization's own account</p>  <pre> graph LR CMBO[Clearing Member Banking Organization] -- 1 --> QCCP[QCCP] </pre>	<p>① is a cleared transaction $RWA = 2\% \times \text{trade exposure amount}$ Clearing member banking organization must also hold capital against its default fund contribution to the QCCP</p>
<p>Clearing member banking organization enters into a transaction with its client and an offsetting transaction (as principal) with the QCCP</p>  <pre> graph LR Client[Client] -- 2 --> CMBO[Clearing Member Banking Organization] CMBO -- 1 --> QCCP[QCCP] </pre>	<p>① is a cleared transaction $RWA = 2\% \times \text{trade exposure amount}^*$ ② is an OTC derivative <ul style="list-style-type: none"> Calculate standardized approach RWA using CEM subject to a scaling factor for holding period Calculate advanced approaches RWA using IMM subject to a margin period of risk adjustment (if applicable) Clearing member banking organization must also hold capital against its default fund contribution to the QCCP</p>

* The U.S. banking agencies have proposed to assign a 0% risk weight to cleared transactions between a clearing member banking organization and a QCCP where the banking organization does not guarantee the performance of the QCCP and has no payment obligation to the client in the event of the QCCP's default.

Capital Treatment of Cleared Transactions: Examples (cont.)

Derivative Clearing Arrangement	Capital Treatment
<p>Clearing member banking organization acts as agent and (1) guarantees client performance to the QCCP and, if applicable, also (2) guarantees QCCP performance to the client</p> <p>1 Clearing Member Banking Organization guarantees client performance to QCCP</p>  <p>2 Clearing Member Banking Organization guarantees QCCP performance to client</p> <p>Clearing member banking organization must also hold capital against its default fund contribution to the QCCP</p>	<p>1 is an OTC derivative</p> <ul style="list-style-type: none">Calculate standardized approach RWA using CEM subject to a scaling factor for holding periodCalculate advanced approaches RWA using IMM subject to a margin period of risk adjustment (if applicable) <p>2 (if applicable) is a cleared transaction $RWA = 2\% \times \text{trade exposure amount}$</p>

Capital Treatment of Cleared Transactions: Examples (cont.)

Derivative Clearing Arrangement	Capital Treatment
<p>Client banking organization enters into transaction with a clearing member, which enters into an offsetting transaction (as principal) with a QCCP</p>  <pre>graph LR; A[Client Banking Organization] -- 1 --> B[Clearing Member]; B --> C[QCCP]</pre> <p>The diagram shows three boxes: 'Client Banking Organization' (blue), 'Clearing Member' (green), and 'QCCP' (green). An arrow labeled '1' points from the client banking organization to the clearing member. Another arrow points from the clearing member to the QCCP.</p>	<p>① is a cleared transaction RWA = risk weight x trade exposure amount</p> <ul style="list-style-type: none">▪ 2% risk weight applies if certain arrangements are in place▪ otherwise a 4% risk weight applies
<p>Client banking organization enters into transaction with a QCCP. Clearing member acts as agent and guarantees client performance to the QCCP</p>  <p>The diagram shows two boxes: 'Client Banking Organization' (blue) and 'QCCP' (green). An arrow labeled '1' points from the client banking organization to the QCCP. Below this, a blue arrow points from the client banking organization up to the QCCP, with the text 'Clearing member guarantees client performance to QCCP' written below it.</p>	<p>① is a cleared transaction RWA = risk weight x trade exposure amount</p> <ul style="list-style-type: none">▪ 2% risk weight applies if certain arrangements are in place▪ otherwise a 4% risk weight applies

U.S. Basel III vs. International Basel III

Topic	U.S. Basel III	International Basel III
Scope of Application	<ul style="list-style-type: none">Applies to all U.S. banking organizations except small BHCs and non-covered SLHCs	<ul style="list-style-type: none">Designed for internationally active banking organizations
Leverage Ratio	<ul style="list-style-type: none">For all banking organizations, a minimum 4% U.S. leverage ratio, which does not take into account off-balance sheet exposuresFor advanced approaches banking organizations only, a minimum 3% Basel III supplementary leverage ratio whose calibration is broadly based on the 2010 Basel III rule text	<ul style="list-style-type: none">Minimum 3% leverage ratioThe Basel Committee has proposed to revise the Basel III leverage ratio; most of the revisions relate to how derivatives and securities financing transactions should be taken into account for purposes of the denominator
Capital Floor	<ul style="list-style-type: none">Advanced approaches banking organizations are subject to a permanent Collins Amendment capital floor based on the standardized approach	<ul style="list-style-type: none">Does not set a capital floor based on the standardized approachBasel Committee may explore relationship between standardized approach and advanced approaches
External Credit Ratings	<ul style="list-style-type: none">Dodd-Frank prohibits references to external credit ratings in federal regulationsU.S. Basel III uses non-ratings based alternatives	<ul style="list-style-type: none">Standardized approach relies extensively on external credit ratings; Basel Committee may review such reliance
Phase-out of Non-qualifying Capital Instruments from Tier 1 Capital	<ul style="list-style-type: none">Permanent grandfathering for smaller banking organizations, full phase-out from Tier 1 capital for larger banking organizations by January 1, 2016	<ul style="list-style-type: none">Generally, a 9-year phase-out period beginning in 2013

U.S. Basel III vs. International Basel III (cont.)

Topic	U.S. Basel III	International Basel III
Additional Tier 1 Capital Eligibility Criteria	<ul style="list-style-type: none">Only instruments classified as equity under U.S. GAAP may qualify as Additional Tier 1 capitalThis would generally prevent contingent capital instruments, which are generally classified as liabilities, from qualifying as Additional Tier 1 capital	<ul style="list-style-type: none">Instruments classified as liabilities for accounting purposes can be included in Additional Tier 1 capital if they have a principal loss absorption feature
Derivatives	<ul style="list-style-type: none">Standardized approach does <u>not</u> permit banking organizations to use the internal models methodology (IMM)	<ul style="list-style-type: none">Standardized approach permits banking organizations to use IMM, subject to supervisory approval
Securities Financing Transactions	<ul style="list-style-type: none">Standardized approach does <u>not</u> permit banking organizations to use simple value-at-risk (VaR) approach	<ul style="list-style-type: none">Standardized approach permits banking organizations to use simple VaR approach, subject to supervisory approval
Securitization	<ul style="list-style-type: none">Dodd-Frank prohibits references to external credit ratings in federal regulationsU.S. Basel III removes ratings-based approach from hierarchy of approaches for calculating RWAs for securitization	<ul style="list-style-type: none">Currently, banking organizations are permitted to use the ratings-based approachBasel Committee has proposed significant changes to the securitization framework
Operational Risk	<ul style="list-style-type: none">No specific operational risk capital charge for non-advanced approaches banking organizations	<ul style="list-style-type: none">Contains 3 methods for calculating operational risk capital charge: (1) the Basic Indicator Approach; (2) the Standardized Approach; and (3) the Advanced Measurement Approaches (AMA)

Pillar 3 Public Disclosures

Scope of Application

- For Q1 2015 and each quarter thereafter, a **top-tier** U.S. BHC or covered SLHC that has $\geq \$50$ billion in total consolidated assets and that is not an advanced approaches banking organization must make timely qualitative and quantitative public disclosures about its regulatory capital, as required by the standardized approach.
- An advanced approaches banking organization, after completing its parallel run, must make broadly similar qualitative and quantitative disclosures required by the advanced approaches.
 - If an advanced approaches banking organization has not completed its parallel run by Q1 2015, it must make public disclosures required by the standardized approach until it has completed its parallel run.
- A U.S. subsidiary of an FBO that is subject to comparable public disclosure requirements in its home jurisdiction is **exempt** from U.S. pillar 3 disclosure requirements.

Frequency and Timing

- Quantitative disclosures must be made quarterly; qualitative disclosures that do not change each quarter may be disclosed annually.
- Quarterly disclosures must be made within **45 days** for calendar quarters that do not correspond to fiscal year-end (60 days for a banking organization's first U.S. pillar 3 disclosure).
- Annual disclosures must be made no later than the applicable SEC disclosure deadline for Form 10-K.

Pillar 3 Public Disclosures (cont.)

Qualitative and Quantitative Disclosure Topics

- Scope of Application
- Capital Structure
- Capital Adequacy
- Capital Conservation Buffer
- ***Countercyclical Buffer****
- Credit Risk: General Disclosures
- ***Credit Risk: Disclosures for Portfolios Subject to Advanced Internal Ratings-Based Approach****
- General Disclosure for Counterparty Credit Risk-Related Exposures
- Credit Risk Mitigation
- Securitization
- ***Operational Risk****
- Equities Not Subject to Market Risk Capital Rule
- Interest Rate Risk for Non-trading Activities

* Disclosure requirements for advanced approaches banking organizations only

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Related Resources: Davis Polk's memoranda, visuals, interactive tools and webcasts on bank capital and other prudential standards are available at USBasel3.com

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