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Fed's Basel III Endgame proposal vs BCBS Basel III

Quick comparison | Market risk framework

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Executive summary

This paper compares the US Federal Reserve Board (Fed) Basel III reforms proposal with the Basel Committee on Banking Supervision (BCBS) minimum capital requirements for market risk, also known as the Fundamental Review of the Trading Book, or FRTB.

The aim is to highlight additional specifications for market risk capital requirements.

The Fed proposal, unveiled on July 27, 2023, includes a new standardised approach to credit risk, a revised approach to credit valuation adjustment risk, a new standardised approach for operational risk, and a revised approach to market risk.

Once finalised, capital requirements for trading activities are expected to increase substantially, more than doubling for some firms. The impact will vary widely, depending on each firm's specific business activities and utilisation of internal models.

We have looked at the proposal for revised approach to market risk and compared it with the BCBS's minimum capital requirements for market risk. The revised approach to market risk is largely consistent. However, the Fed has proposed additional specifications, a few of which are outlined below:

Highlights

- Introduces three additional capital components for standardised measures, commonly referred to as the standardised approach (SA), and models-based measures, also known as the internal model approach (IMA): (i) A fallback capital requirement, (ii) Capital add-on, and (iii) Additional capital requirement
- Standardised measures
  - Specifies two rating-based buckets for sovereigns and multilateral development banks (MDBs), and their weights for credit spread risk (CSR) — non-securitisation and CSR — securitisation (correlation trading portfolio) under the sensitivity-based method (SBM)
  - For DRC non-securitization requirements, specifies the loss given default (LGD) multiplier for (i) debt issued and guaranteed by government-sponsored enterprises (GSEs), and (ii) debt issued by GSEs, but not guaranteed
  - For DRC non-securitization requirements, prescribes 0% risk weight to US sovereign and MDBs
  - Provides the indicative inclusion and exclusion list of instruments for residual risk add-on (RRAO)
- Models-based measures
  - Allows two approaches, direct and indirect, to calibrate liquidity horizon-adjusted expected shortfall (ES) measure
  - No separate default risk capital (DRC) requirements for model-based measures (IMA), and aligns with the standardised DRC requirements
- Encourages to integrate ES-based measure into daily risk management
- Defines scope of large banking organisations
- Simplifies definition for the trading desk and widens the definition for the notional trading desk
- Additional specifications with respect to the risk factor eligibility test (RFET), internal risk transfer, and market risk covered positions
- Proposes phased implementation and transition from July 1, 2025, and concluding by June 30, 2028

Scope of proposal

The Fed established thresholds for the proposed application. According to the proposal, large banking organisations and those with significant trading activity need to compute market risk capital requirements.

Further, the large banking organisations could be classified into Category I, II, III or IV as per the criteria below.

Category I	Category II	Category III	Category IV	Other — significant trading activities
US-based global systemically important banks (and their depository institution subsidiaries)	Banking organisations with ≥ \$700 billion in total assets or ≥ \$75 billion in cross-jurisdictional activity (and their depository institution subsidiaries)	Banking organisations with ≥ \$250 billion in total assets or ≥ \$75 billion in non-bank assets, weighted short-term wholesale funding, or off-balance-sheet exposure (and their depository institution subsidiaries)	Banking organisations with \$100 billion to \$250 billion in total assets (and their depository institution subsidiaries)	Banking organisations whose trading assets and trading liabilities over the previous four calendar quarters are equal to \$5 billion or more or equal to 10% or more of total consolidated assets at quarter end, as disclosed in the most recent quarterly regulatory report

Source: Overview of the Notice of Proposed Rulemaking for Amendments to the Regulatory Capital Rule

Trading desk definition

Compared with the BCBS guidelines, the Fed's proposal has simplified trading desk definition to align with the existing organisational structure consistent with the Volcker Rule.

It provides a wider definition of the notional trading desk. Apart from foreign exchange and commodity positions held in the banking book, the proposal applies to certain types of instruments and positions that may not arise from, and may be unrelated to, a banking organisation's trading activities.

Examples include net short risk positions (for instance, a bank purchasing CDS to mitigate the risk of a loan that exceeds the loan exposure amount) and certain embedded derivatives segregated for accounting purposes.

Additionally, the proposal includes a provision (subject to the Fed's approval) that enables a banking organisation to exclude any insignificant amount of securitisation positions and/or correlation trading positions from the model-eligible trading desk for the purpose of conducting model eligibility tests.

This insignificant amount could be capitalised under the standardized approach or the fallback capital requirement. Alternatively, such positions could be treated as if they were not held by the desk. Whereas according to the BCBS guidelines, any trading desk with securitisation positions and/or correlation trading positions should be capitalised under the standardized approach.

Internal risk transfer

The Fed proposal provides additional guidance as compared to BCBS for internal risk transfer, to ensure consistency and comparability in the risk-based capital treatment of internal transactions within a banking organisation.

Further, to qualify as an eligible internal risk transfer for credit risk, interest rate risk, equity risk and credit value adjustment risk, the trading desk should meet additional requirements and obtain specific approvals.

The proposal also specifies that the banking organisation must disregard the internal risk transfer from the market risk positions if the established standards are not met.

Market risk covered positions

The proposal refers to trading book instruments (as per the BCBS guidelines) as 'market risk covered positions'.

In contrast to the BCBS guidelines, it widens the definition of market risk covered positions to include any trading asset/ liability reported as trading position on a banking organisation's regulatory report.

The proposal introduces a notional amount threshold of $20 million for net short risk positions that are over-hedges of credit, and equity exposures that are not market risk covered positions.

It excludes certain items from the covered positions, such as servicing assets and any instrument serving liquidity facility for asset-backed commercial paper.

Standardised measures (SA)

SBM

CSR: Non-securitisation

The proposal specifies 19 risk buckets, while the BCBS guidelines has 18. It defines two separate risk buckets for sovereigns and Multilateral development banks (MDBs) sectors — one for speculative grade with 3% risk weight, and one for sub-speculative grade with 7% risk weight. Whereas, as per the BCBS guidelines, there is only speculative-grade sovereigns and MDBs sector with risk weight of 2%.

The proposal requires a 2.5% risk weight for all covered bond positions irrespective of their rating. According to the Basel III guidelines, AA-rated or higher positions attract a lower 1.5% risk weight.

Risk weights for CSR non-securitization

Credit quality category	Sector	Risk weight	Comment
Investment grade	Sovereign and multilateral development banks (MDBs)	0.50%	
	PSE, government-backed non-financials, GSE debt, education, and public administration	1.00%	
	Financials including government-backed financials	5.00%	

Credit quality category	Sector	Risk weight	Comment
	Basic materials, energy, industrials, agriculture, manufacturing, and mining and quarrying	3.00%	
	Consumer goods and services, transportation and storage, and administrative and support service activities	3.00%	
	Technology and telecommunications	2.00%	
	Healthcare, utilities, and professional and technical activities	1.50%	
	Covered bonds	2.50%	Higher risk weights for AA or higher
Speculative grade	Sovereign and multilateral development banks (MDBs)	3.00%	New bucket
Speculative grade and Sub speculative grade	Speculative grade and sub-speculative grade PSE, government-backed non-financials, education, and public administration	4.00%	
	Financials including government-backed financials	12.00%	
	Basic materials, energy, industrials, agriculture, manufacturing, and mining and quarrying	7.00%	
	Consumer goods and services, transportation and storage, and administrative and support service activities	8.50%	
	Technology and telecommunications	5.50%	
	Healthcare, utilities, and professional and technical activities	5.00%	
Sub speculative grade	Sovereign and MDBs	7.00%	New bucket
Other sector		12.00%	
Investment grade indices		1.50%	
Speculative grade and sub-speculative grade indices		5.00%	

Source: Fed Basel III notice of proposed rulemaking

CSR: Securitisation (correlation trading portfolio)

The proposal specifies 17 risk buckets, while the BCBS guidelines has 16. It defines two separate buckets for the sovereigns and MDBs sector — one for speculative grade with 13% risk weight, and one for sub-speculative grade with 16% risk weight.

Risk weights for CSR securitization (CTP)

Credit quality category	Sector	Risk weight	Comment
Investment grade	Sovereign and multilateral development banks (MDBs)	4.00%	
	PSE, government-backed non-financials, GSE debt, education, and public administration	4.00%	
	Financials including government-backed financials	8.00%	
	Basic materials, energy, industrials, agriculture, manufacturing, and mining and quarrying	5.00%	

Credit quality category	Sector	Risk weight	Comment
	Consumer goods and services, transportation and storage, and administrative and support service activities	4.00%	
	Technology and telecommunications	3.00%	
	Healthcare, utilities, and professional and technical activities	2.00%	
	Covered bonds	6.00%	
Speculative grade	Sovereign and multilateral development banks (MDBs)	13.00%	New bucket
Speculative grade and Sub speculative grade	Speculative grade and sub speculative grade PSE, government-backed non-financials, education, and public administration	13.00%	
	Financials including government-backed financials	16.00%	
	Basic materials, energy, industrials, agriculture, manufacturing, and mining and quarrying	10.00%	
	Consumer goods and services, transportation and storage, and administrative and support service activities	12.00%	
	Technology and telecommunications	12.00%	
	Healthcare, utilities, and professional and technical activities	12.00%	
Sub speculative grade	Sovereign and MDBs	16.00%	New bucket
Other sector		13.00%	

Source: Fed Basel III notice of proposed rulemaking

DRC

The proposal specifies loss given default (LGD) as 25% for GSE-issued debt, GSE-guaranteed debt and credit derivatives to compute gross jump-to-default (JTD). For debt issued but not guaranteed by GSEs, it sets LGD at 75%. Whereas BCBS guidelines does not specify LGD based on whether debt instruments are guaranteed or not.

LGD for DRC non-securitization

Positions	LGD	Comment
Equity and non-senior debt and defaulted positions	100.00%	
Senior debt	75.00%	
GSE debt issued, but not guaranteed, by GSEs	75.00%	New
GSE debt guaranteed by GSEs	25.00%	New
Covered bonds	25.00%	
If the value of the non-securitization debt or equity position is not linked to the recovery rate of the defaulter	0.00%	

Source: Fed Basel III notice of proposed rulemaking

The proposal also specifies risk weights for non-securitisation based on credit quality categories and buckets in contrast to the BCBS guidelines, which specifies risk weights based on the rating.

The proposal prescribes 0% risk weight for positions related to the US government, central bank and MDBs.

Risk weights for DRC non-securitization

Bucket	Credit quality category		
	Investment grade	Speculative grade	Sub-speculative grade
US government, central bank and MDBs		0.0%	
Non-US sovereign positions	0.6%	22%	50%
PSE and GSE debt positions	2.1%	22%	50%
Corporate positions	4.1%	22%	50%
Defaulted positions		100%	

Source: Fed Basel III notice of proposed rulemaking

Further, it defines ‘defaulted positions’ based on 90-day non-accrual status.

RRAO

As compared to the BCBS guidelines, the Fed proposal provides the indicative inclusion and exclusion list of instruments for RRAO. Example of instrument that can be excluded from RRAO is to-be-announced (TBA) and security interests in associated mortgage pools.

Model eligibility tests

RFET

In comparison with the BCBS guidelines, the proposal provides additional details on the pro-rated treatment of risk factors associated with new issuances.

For example, a bond issued six months ago would require $50 = \left\{100 \times \left(\frac{6\ months}{12\ months}\right)\right\}$ real price observations over the prior six-month period to pass the RFET, or at least $12 = \left\{24 \times \left(\frac{6\ months}{12\ months}\right)\right\}$ real price observations with no 90-day period in which fewer than four real price observations were identified for the risk factor.

Data principles

The proposal requires banking organisations to update data inputs at a sufficient frequency and at least on a weekly basis, compared with the Basel III guidelines of monthly.

Models-based measures (IMA)

ES

The Fed encourages banking organisations to integrate the ES-based internal models into the daily risk management process which may not distinguish between modellable and non-modellable risks.

It allows banking organisations to use either the direct or indirect approach to calibrate the liquidity horizon-adjusted ES based measure to a period of stress, while the BCBS guidelines specifies only indirect approach.

Under the direct approach, the banking organisations allowed to use full set of risk factors to calculate the ES measure over a 12-month period of stress.

The indirect approach aligns with that of Basel, with the following modification:

- Reduced set of risk factor identification based on out-of-sample R^2 measure, as defined according to the following formula:

$$1 - \frac{\sum_t^{60}\left(ES_{F,C,t} - ES_{R,C,t}\right)^2}{\sum_t^{60}\left(ES_{F,C,t} - Mean(ES_{F,C})\right)^2}$$

Liquidity horizon

The proposal requires applying a liquidity horizon of 20 days for the USD/RUB foreign exchange rate, while the BCBS guidelines prescribes 10 days of liquidity horizon.

DRC

The BCBS specifies separate requirements to compute DRC for IMA eligible desks, while the Fed has proposed no such default risk capital (DRC) requirements for model-based measures (IMA). It requires banking organisations to use the standardised DRC requirement, regardless of whether they are using models-based measures (IMA) or standardised measures (SA).

Additional capital components

In addition to the BCBS minimum capital requirements for market risk, the proposal requires three additional components for standardized measures as well as for model-based measures that would apply in limited instances to specific positions.

Fallback capital requirement

A fallback capital requirement would apply in instances where a banking organisation is unable to calculate market risk capital requirements under the standardised measures and the models-based measures, if eligible.

For example, a banking organisation may not be able to calculate risk factor sensitivities or components for one or more market risk covered positions due to an operational issue or a calculation failure.

The fallback capital requirement would equal the sum of the absolute fair value of each position subject to this requirement unless the banking organisation obtains prior written approval from its primary federal supervisor to use an alternative method to quantify the market risk capital requirement for such positions.

Capital add-on

A capital add-on would apply for re-designations in cases where a banking organisation reclassifies an instrument post initial designation as being subject to the market risk capital requirements. A capital add-on is a penalty for any re-designation.

	Standardised measures (SA)	Models-based measures (IMA)
Scope	Re-designation positions	• Re-designation positions • Any securitisation • Correlation trading positions • Equity positions in an investment fund*

**Note: Where a banking organisation is not able to identify the underlying positions held by an investment fund on a quarterly basis on model-eligible trading desks, provided such positions are not subject to the fallback capital requirement*

Additional capital requirements

As part of the proposal's reservation-of-authority provisions, the primary federal supervisor may require a banking organisation to keep an overall amount of capital that differs from the amount otherwise required under the proposal.

This is applicable if the primary federal supervisor concludes that the banking organisation's market risk capital requirements under the proposal are not equal with the risk of the banking organisation's market risk covered positions, a specific market risk covered position, or categories of positions, as applicable.

References

- https://www.federalreserve.gov/aboutthefed/boardmeetings/frn-basel-iii-20230727.pdf
- https://www.federalreserve.gov/aboutthefed/boardmeetings/basel-iii-reforms-overview-20230727.pdf
- https://www.bis.org/bcbs/publ/d457_faq.pdf

Appendix

Summarized table :

Particular	Basel III minimum capital requirement for market risk (d457)	The US Fed Basel III reform proposal – Revised market risk measures
Additional capital components for standardised measures and model-based approach	No such requirement specified	• A fallback capital requirement • Capital add-on • Additional capital requirement
Notional trading desk definition	Any foreign exchange or commodity positions held in the banking book	Apart from any foreign exchange or commodity positions held in the banking book, the proposal applies to certain types of instruments and positions that may not arise from, and may be unrelated to, a banking organisation's trading activities.
Treatment for trading desk with securitisation positions and/or correlation trading positions	Any trading desk with securitisation positions and/or correlation trading positions should be capitalised under the Standardized approach only.	Subject to approval, could be exclude any insignificant amount of securitisation positions and/or correlation trading positions from the model-eligible trading desk for the purpose of conducting model eligibility tests. This insignificant amount could be capitalised under the SA or the fallback capital requirement. Alternatively, such positions could be treated as if they were not held by the desk.
Calibration of liquidity horizon-adjusted expected shortfall (ES)	Indirect approach	Direct or Indirect approach
DRC requirements under model-based approach (IMA)	Provides detail requirements to compute DRC for IMA eligible desks	Need to compute DRC as per the Standardised DRC requirements for model-eligible desks
RFET treatment for risk factors associated with new issuances	No detailed treatment specified	Provides additional details regarding the pro-rated treatment
Identification of reduced set of risk factors for ES calculation	Reduced set of risk factors must be able to explain minimum of 75% of variation of the full set Expected Shortfall measure.	Specifies that 75% ratio should be based on out-of-sample R^2 measure
Risk weights for CSR non-securitization	• HY/unrated - sovereign and multilateral development banks (MDBs) – 2% risk weights • Covered bonds – AA-rated or higher positions 1.5% risk weight – Else 2.5% risk weight	• It defined two separate sectors for sovereigns and MDBs — one for speculative grade (a 3% risk weight), and one for sub-speculative grade (a 7% risk weight). • All covered bond positions – 2.5% risk weights

Particular	Basel III minimum capital requirement for market risk (d457)	The US Fed Basel III reform proposal – Revised market risk measures
Risk weights for CSR securitization (CTP)	HY/unrated - sovereign and multilateral development banks (MDBs) – 13% risk weights	It defined two separate sectors for sovereigns and MDBs — one for speculative grade (a 13% risk weight), and one for sub-speculative grade (a 16% risk weight).
LGD for DRC CSR non-securitization	• Equity and non-senior debt and defaulted positions (100%) • Senior debt (75%) • Covered bonds (25%) • If the value of the non-securitization debt or equity position is not linked to the recovery rate of the defaulter (0%)	• Equity and non-senior debt and defaulted positions (100%) • Senior debt (75%) • GSE debt issued, but not guaranteed, by GSEs (75%) • GSE debt guaranteed by GSEs (25%) • Covered bonds (25%) • If the value of the non-securitization debt or equity position is not linked to the recovery rate of the defaulter (0%)
Risk weights for DRC non-securitization	Risk weights based on the rating such as AAA, AA, A etc., and buckets.	Risk weights for non-securitisation based on credit quality categories such as Investment grade, Speculative grade, Sub-speculative grade and buckets.
Frequency to update data inputs at a sufficient frequency *(Ref: Principle 5)*	At least monthly	At least weekly
Liquidity horizon for USD/RUB FX	10 days	20 days

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