Fundamental review of the trading book: An overview

July 2025

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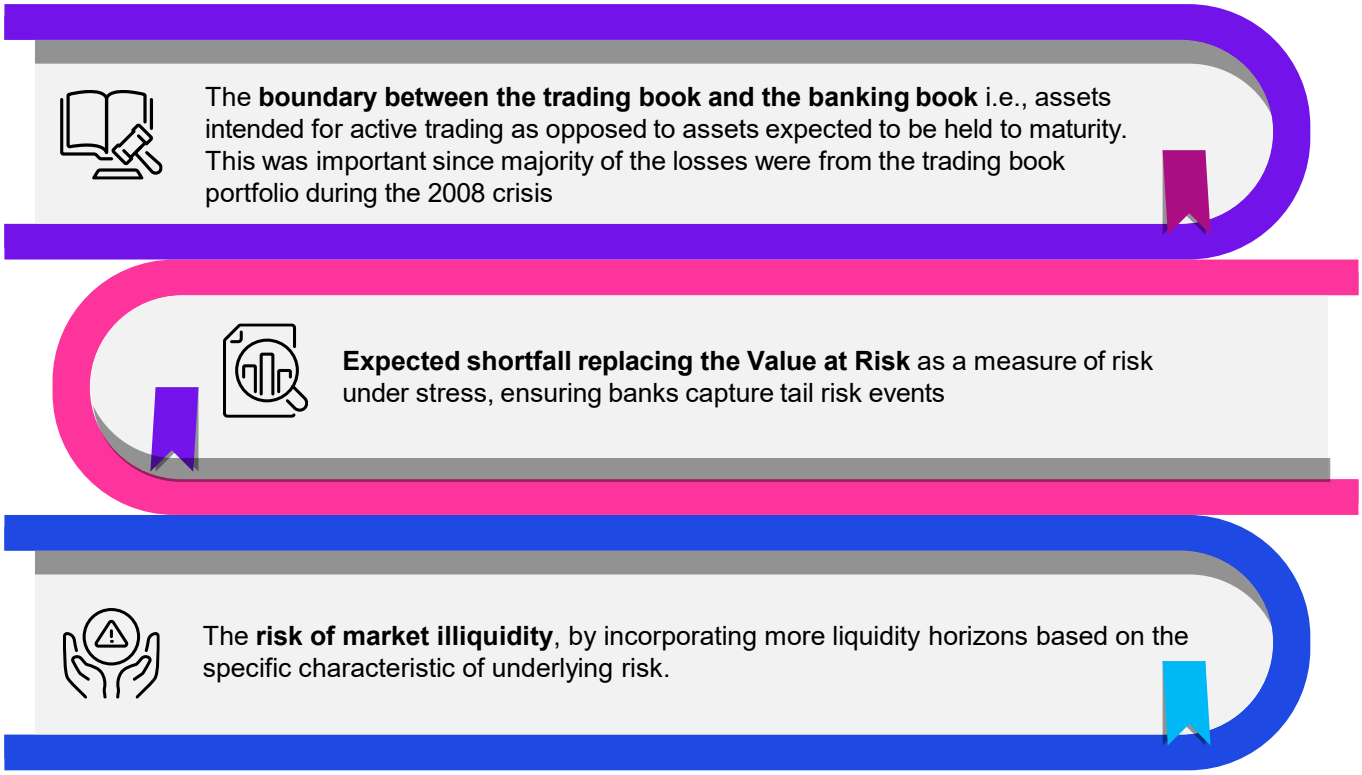
Introduction

The global financial crisis of 2007-08 revealed significant weaknesses in the market risk capital framework. To achieve a more robust framework, the Basel Committee on Banking Supervision (BCBS) issued draft Fundamental Review of the Trading Book reforms in 2012 thereby publishing the final standards in January 2019[1]. The fundamental review of the trading book (FRTB) is a comprehensive set of rules specifying the minimum capital requirements for market risk on banks trading portfolio. FRTB's immediate objective is to address weaknesses in the market risk framework that became apparent during the financial crises such as: insufficient capitalisation for stressed market scenarios, lack of consistency and sufficient transparency of the capital calculations across all financial institutions.

1.1. Overview of Fundamental Review of the Trading Book reforms

FRTB reforms, part of Basel III regulations, were published by BCBS as a series of consultative papers (CP) from October 2013 with the final standards published in January 2019. It is a comprehensive effort to make the trading book framework further robust with the objective to introduce a more risk sensitive and accurate methodology for the capital charge computation; establishing clearer rules to prevent banks from exploiting inconsistencies between trading and banking books; and to standardise the market risk frameworks across jurisdictions to improve comparability and transparency. FRTB addresses the shortcomings in both the existing standardised approach and internal models approach, and specifically revisiting the following areas:



FRTB intends to remediate the design flaws in the existing market risk framework in two key ways: first, by enhancing the assessment of risks associated with banks' trading activities, and second, by reducing variability in internal models approach outcomes by restricting banks' discretion in applying their own modelling assumptions.

This framework is designed to ensure that banks maintain sufficient capital to absorb potential trading losses, including those arising in stressed market conditions.

1. BCBS minimum requirement for market risk, https://www.bis.org/bcbs/publ/d457.pdf

FRTB timeline: Key milestones

2012 — **May 2012** BCBS FRTB First CP

2013 — **Oct 2013** BCBS FRTB Second CP

2014 — **Dec 2014** BCBS FRTB Third CP

2016 — **Jan 2016** BCBS FRTB rules finalised

2017 — **Dec 2017** BCBS announcement on go-live date

2019 — **Jan 2019** HKMA issues circular to align with BCBS FRTB rules

2019 — **Jan 2019** BCBS FRTB Revised Rules

2019 — **June 2019** EU EBA issued CRR II with FRTB reporting requirements

2021 — **Sept 2021** MAS (Singapore) issued CP on FRTB requirements

2021 — **Oct 2021** EU EBA issued CRR III with the FRTB capital requirements

2022 — **Jan 2022** Basel FRTB measures come into force

2022 — **Nov 2022** PRA issued draft rules for Basel 3.1

2023 — **Feb 2023** Reserve Bank of India (RBI) published the draft guidelines (Simplified standardised approach)

2023 — **July 2023** FED published the proposed FRTB rules

2023 — **Sept 2023** MAS (Singapore) issued Basel 3 capital requirements

2023 — **Dec 2023** PRA issued a near final version was for Basel 3.1 standards.

2024 — **March 2024** HKMA issued market risk capital requirements

2025 — **July 2025** PRA publishes CP to seek feedback on the timelines

2025 — **March 2025** EU consultation to gather feedback on the implementation timelines and potential rule revision

1.2 Key elements and changes

FRTB seeks to address the structural weakness of the overall design of the existing market risk framework by introducing new aspects in the framework. These aspects cover the scope of trading portfolio to be capitalised under the market risk framework along with changes in standardised and internal model computation approach.

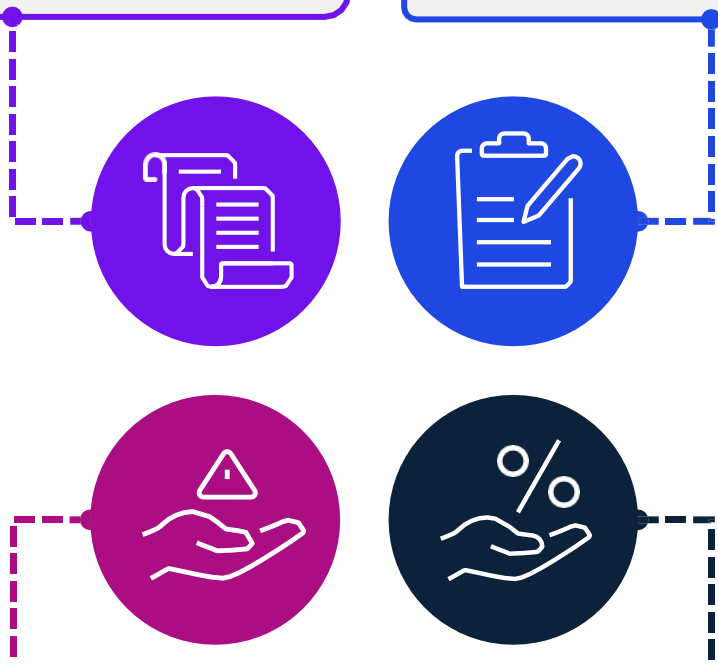
Key FRTB aspects

Trading book/Banking book boundary

- More objective rules for instruments included in trading book
- Switching instruments for regulatory arbitrage is strictly prohibited
- Reduced incentives on movements, where allowed.

Trading desk eligibility

- Assessment of bank's organisational infrastructure
- Desk level nomination and model performance assessment (PLAT, backtesting).



SA measurement

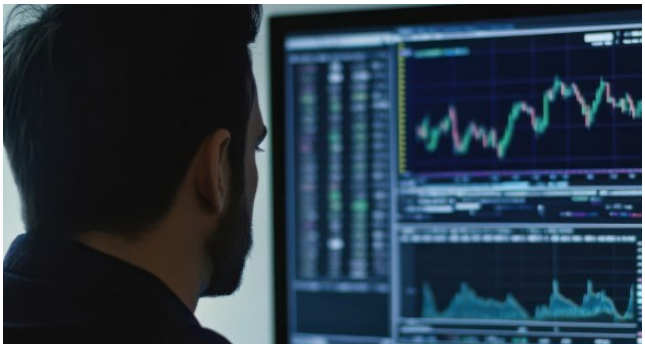
- Prescribed risk weights and correlation parameters
- Granular risk factor definitions
- Default risk charge - intended to capture the Jump-to-default (JTD) risk of an instrument
- Residual risk add-on - calculated for all instruments bearing residual risk separately in addition to other components
- Intended to serve as a credible fallback for IMA.

IMA measurement

- Expected shortfall (to capture tails losses) with varying liquidity horizons
- Replacement of existing Incremental risk charge (IRC) with Default risk charge (DRC)
- More consistent identification of risk factors
- Punitive treatment for non-modellable risk factors (NMRF)
- Stress period calibration to worst loss period.

The framework requires a significant overhaul to banks' current internal systems, processes, and infrastructure. Particularly for banks using IMA, market risk capital charge will need to be calculated at the trading desk level. The implementation to meet the FRTB requirements requires various changes to be done across front office, risk, finance, risk-tech and IT departments. FRTB requires extensive enhancements in data and analytics, infrastructure and systems for trading desk approval processes, model governance, ongoing P&L attribution, and more granular reporting requirements.

Most banks have been prioritising the development of robust risk infrastructure and enhancing data quality. For banks using the IMA, the most significant challenges under the new framework remain passing the Profit and loss attribution (PLA) test and managing the capital charges associated with exposures classified under the Non-modellable risk factor (NMRF). Another challenge for banks is to increase the data capture for the stress period while remaining compliant with the data quality requirements. These factors have played a critical role in banks' cost-benefit analysis, particularly when making decisions about desk structures.



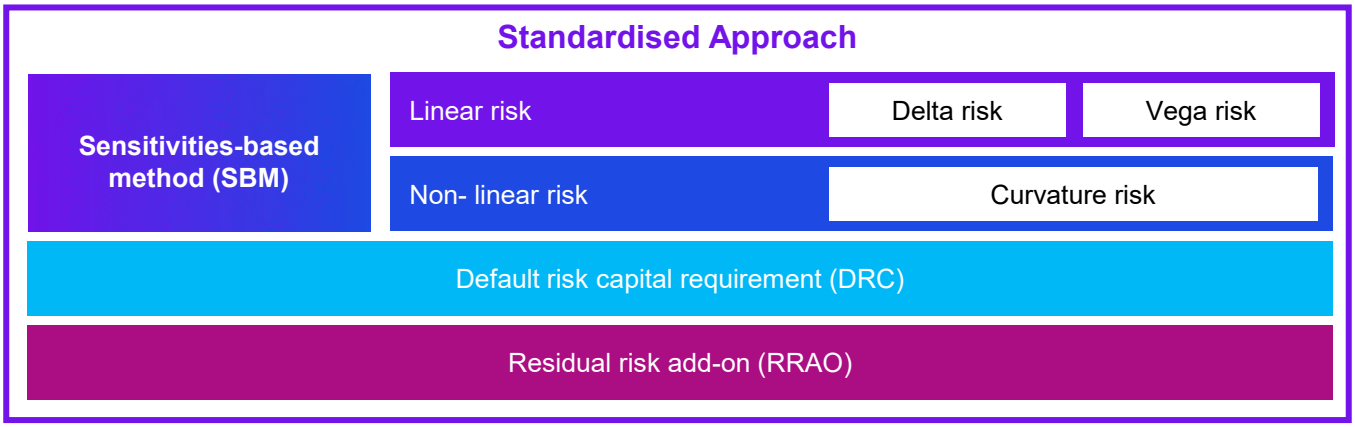
Some of the significant changes/differences between the BASEL 2.5 regime and FRTB framework are as follows -

Attribute	Basel 2.5 framework (amended in 2010)	Current Basel FRTB standards (issued in 2019)
Boundary between the trading book and banking book	Assignment to the trading book relies on the bank's intent	Robust definitions for boundaries of the trading book and restrict arbitrary reassignment
Risk measurement under the standardised approach	Risk measurement based on an exposure by exposure building block approach	Risk-sensitive measurement primarily based on the loss a bank could suffer (i.e., sensitivities) under a defined stress scenario
Use and validation of banks internal models	Model approval/removal determined on a bank-wide basis	Model approval/removal determined at the trading desk level; separate and more stringent capital requirements for risks not appropriate for modelling
Risk measurement under the internal model's approach	Capital requirements primarily determined using value-at-risk (VaR) models, SVaR and Incremental risk charge (IRC)	Expected shortfall measure replacing VaR; separate NMRF capital requirement; fall back to the standardised approach for trading desks that fail model approval assessments and Default risk charge (DRC)

1.3 FRTB: Capital computation approaches

a. Standardised Approach (SA)

The Standardised approach minimum capital requirement is the sum of the three components: Sensitivities based method (SBM), Residual risk add-on (RRAO) and Default risk charge (DRC).



The core component of the standardised approach is the sensitivities-based method. A 'sensitivity' is the change in the value of an instrument given a small movement in a risk factor that affects the instrument's value. Default risk charge is a risk measure that captures the jump to default risk. The residual risk add-on charge is a risk measure designed to account for residual risk, i.e., risk not covered by other components. RRAO is calculated separately for all instruments carrying residual risk and is applied in addition to any other capital requirements under the standardised approach.

Risk Factors: A set of risk factors which are the main market variables that affect the value of banks' trading portfolios. Similar risk factors are grouped together into 'buckets'. Banks calculate the sensitivity of their trading book portfolio to movements in the value of each of the risk factors.

Risk Weights: Risk weights, i.e. the calibrated shocks, to be applied to the risk factors. Banks must scale up their 'sensitivities' to each risk factor based on the prescribed risk weight to estimate how much value the portfolio would lose if a shock was to happen to the risk factor.

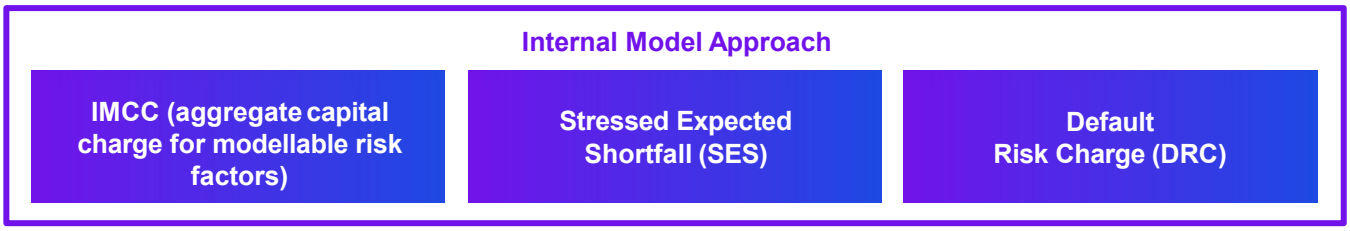
Risk Classes: 1. General interest rate risk; 2. Equity risk; 3. Foreign exchange risk; 4. Commodity risk; 5. Credit spread risk (CSR) - non-securitisations; 6. CSR - securitisations non-correlation trading portfolio (CTP); 7. CSR - securitisations CTP.

Sensitivities based method provides a methodology for aggregating the losses calculated for each risk factor shock, to determine the loss at the portfolio level. In order to ensure a level of risk sensitivity, the aggregation method recognises a degree of diversification benefit between risk factor-level losses by applying different levels of assumed correlation between shocks applied to risk factors in the same buckets and those in different buckets. These aggregations are performed by using the regulatory defined correlation parameters. To address the risk that correlations in the movement of risk factors can fluctuate in periods of financial stress, sensitivities are aggregated three times, assuming high, medium, and low correlations scenarios between risk factor shocks.

Thereafter, the capital requirements are calculated separately for each of the regulatory risk classes under each correlation scenario and the risk class-level capital requirements are aggregated as a simple sum. The total capital requirement is the largest of the capital requirements across the three correlation scenarios.

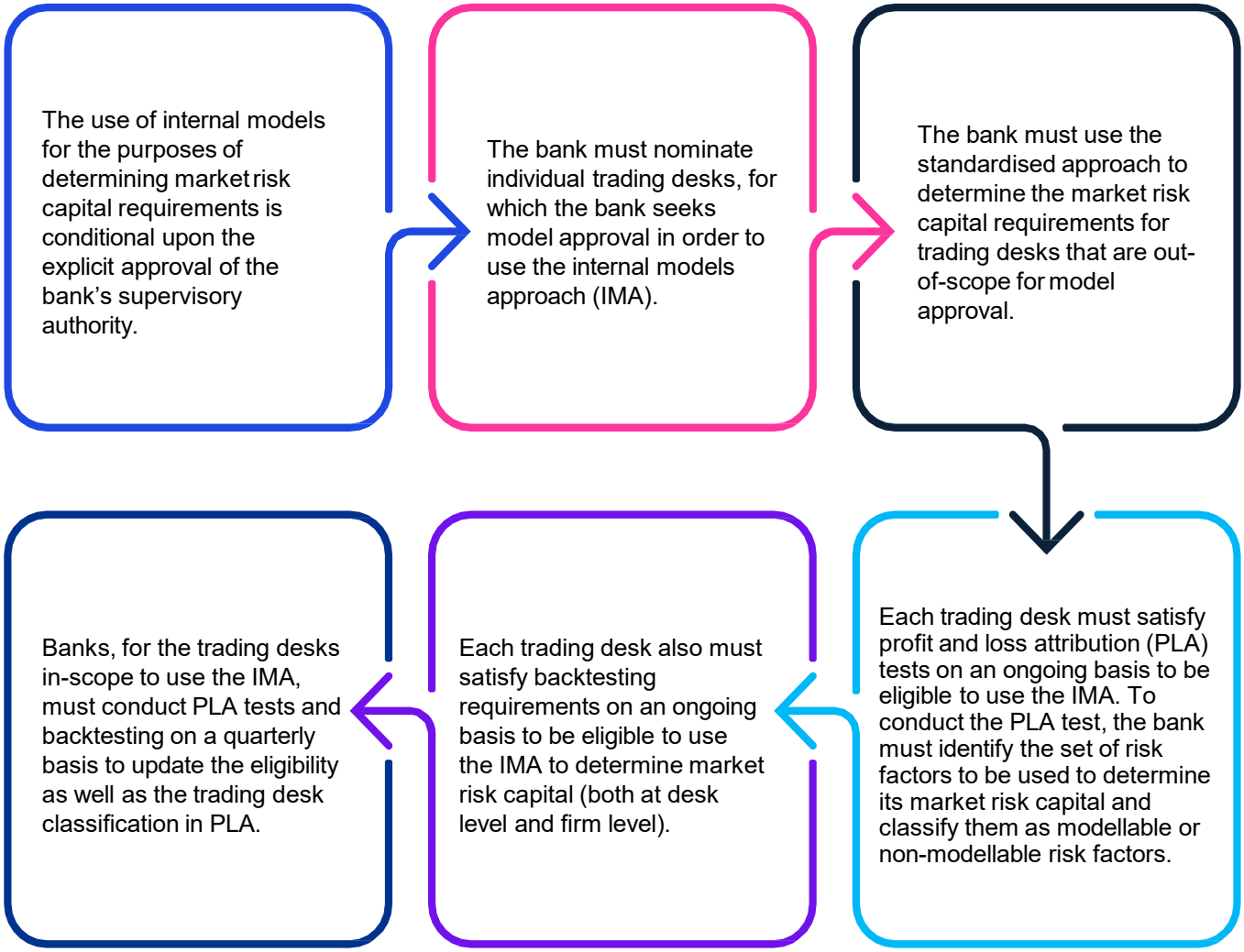
b. Internal Models Approach (IMA)

The capital requirement under IMA approach is sum of three major components which include the IMCC (aggregate capital charge for modellable risk factors), SES (the capital charge for non- modellable risk factors (NMRFs)) and DRC (Default risk charge) which captures the jump to default risk.



The internal model approach requires a step-by-step procedure which needs to follow consistently by bank desk wise.

FRTB IMA: Flow process



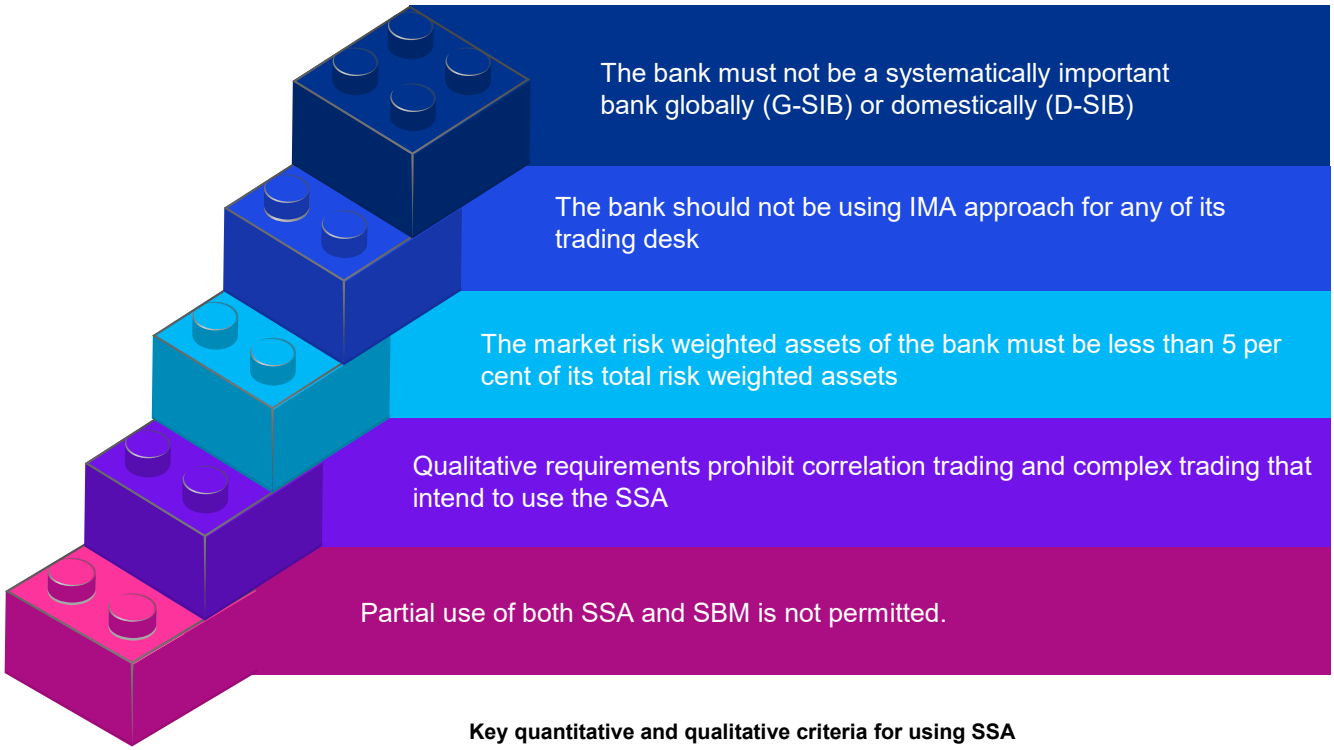
BCBS aim for an alignment between Front office (FO) systems and the risk management systems (i.e., internal models) by PLAT (Profit & loss attribution test) and backtesting. Simplified risk management systems may not reflect all material risks, and the significant differences with the FO systems, resulting in failing at least one of the tests. Failing implies the trading desk to fall back to the standardised approach for at least one year.

c. Simplified Standardised Approach (SSA)

The increased complexity presented by the FRTB poses a significant challenge for smaller and regional banks that typically have a low concentration of trading book activity and do not have sufficient infrastructure for the sensitivities-based method.

Hence, BCBS came up with an operationally simpler approach i.e., the simplified standardised approach (SSA). The SSA simplifies risk categorisation compared to the SBM by using a more concise structure with fewer risk buckets. For instance, while SBM defines 10 maturity buckets for interest rate risk, ranging from three months to 30 years, SSA reduces this to just two: up to five years and more than five years. Additionally, SSA allows banks to exclude gamma and vega risks from traded options, considering only delta risks, which lowers operational complexity for eligible banks.

Despite its simplified framework, SSA applies significantly higher risk weights in market risk capital calculations. While it simplifies certain aspects of market risk assessment, it does not substantially reduce the effort required to gather and maintain reference data. Recognising this, BCBS has clearly mentioned that SSA is intended only for smaller banks or those with low trading book activity. It further permits that the jurisdiction specific regulators can allow banks to use SSA based on the size of the portfolio subject to market risk, along with quantitative and qualitative criteria before receiving approval.



Key quantitative and qualitative criteria for using SSA

1.4 FRTB global adoption

The FRTB market risk capital framework for banks' trading activities has undergone significant regulatory changes for over a decade. Since BCBS finalised the FRTB regulations in 2019, several member jurisdictions are still in the process of incorporating these rules into their domestic regulations. With the jurisdictions following different implementation timelines, tracking FRTB adoption has become increasingly complex. It was anticipated that these new rules will be more punitive and increase the capital requirements for market risk significantly. In many regions, the finalisation of these regulations remains a work in progress, creating uncertainty for banks, particularly those with cross-border operations.

Banks globally are preferring the standardised approach over the internal model approach for the implementation of the market risk capital requirements, due to the former being less complex and having fewer operational challenges. The global implementation of the FRTB SA is progressing with varying timelines. In many jurisdictions banks have largely completed the SA implementation and have submitted the applications with their respective regulators.

The FRTB IMA is highly complex, requiring banks to meet rigorous requirements for using the approach such as desk-level profit and loss attribution and backtesting. Additionally, banks would have to collect large amount of data and ensure that data used for modelling is of appropriate quality so that the risk factors are not subject to a more punitive SES capital charge. Another challenge is the regulatory inconsistency across the member jurisdictions. The regulatory divergence and varying timelines complicates the compliance efforts especially for the global institutions operating under multiple supervisory regimes.

Consistency in the regulations and timelines helps in preserving a level playing field between the global banks. These technical hurdles, have led many institutions to question whether the benefits of using internal models outweigh the significant operational and compliance burdens.

The delay in the U.S. Federal Reserve's finalisation of the FRTB guidelines has prompted several major jurisdictions to push back their own implementation timelines. The European commission in March 2025 launched a targeted consultation[2] to gather industry feedback on the application of the FRTB framework, potential adjustments to this framework and the implementation timelines. Basis the responses received to this consultation, the commission has decided to delay the implementation by a further year until January 2027. Following this recently, PRA in July 2025 has proposed to postpone the timelines for FRTB internal models approach to January 2028[3].

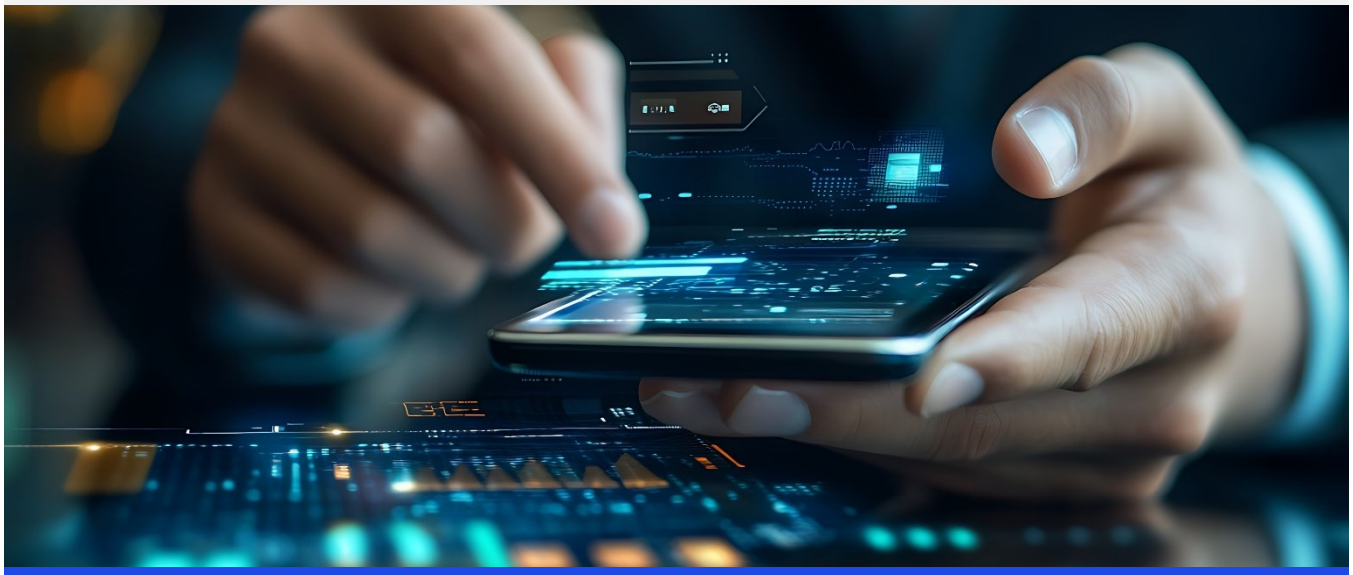
However, despite these delays, it is crucial for banks to use this additional time to ensure they are fully prepared for implementation once the rules take effect.

2. European Commission launches consultation on proposed adjustments and implementation timelines, https://finance.ec.europa.eu/regulation-and-supervision/consultations-0/targeted-consultation-application-market-risk-prudential-framework-2025_en

3. U.K. PRA launches consultation for FRTB implementation timelines (https://www.bankofengland.co.uk/prudential-regulation/publication/2025/july/basel-3-1-adjustments-to-the-market-risk-framework-consultation-paper).

European commission targeted consultation on the FRTB application

- In March 2025, the European commission released a consultation seeking feedback on the application of the FRTB framework in the context of the delays and uncertainty in other major economic regions
- This is aimed to assess if the institutions prefer, i) continuing with the current implementation timeline (i.e., Jan 2026) , or ii) the implementation is delayed by a year (i.e., to Jan 2027), or iii) the temporary and targeted adjustments (for up to three years) to align the aspects in the framework where regulatory stance in U.K. and U.S. indicate to deviate
- Some potential adjustments being considered are:
  - Relaxing the PLAT requirement to act as a monitoring tool till an interim period
  - Applying a flat multiplier for an interim period to phase in the SES capital requirement on non-modellable risk factors
  - Allow use of prorated number of observations in the risk factor eligibility test (used to classify risk factors as modellable or non-modellable) for new instruments/issuances
  - Phase in the residual risk requirement (RRAO) for specific instruments only.



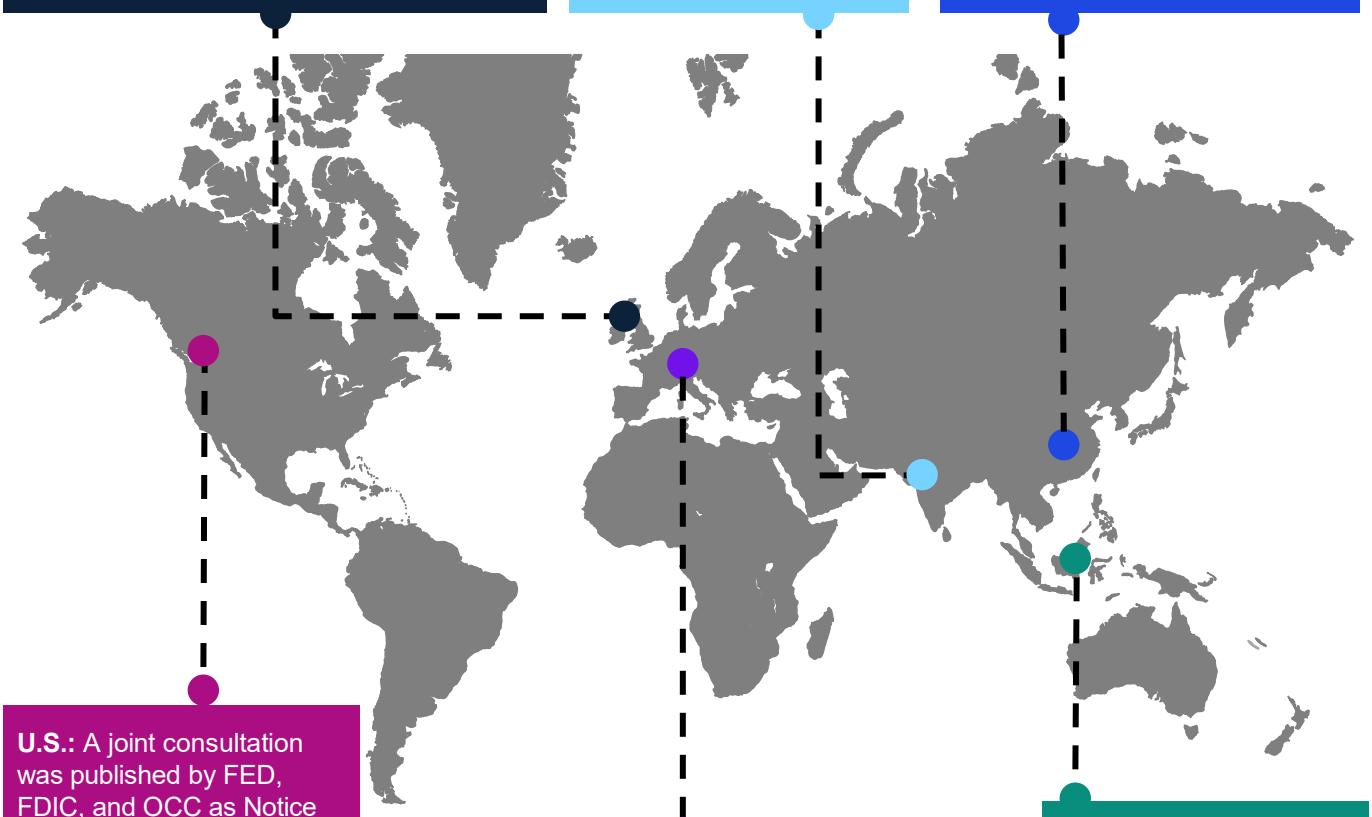
PRA proposes adjustments to the market risk framework and timelines

- In July 2025, the PRA released a consultation paper seeking feedback on the proposal to introduces some adjustments to the near final market risk rules and the implementation timelines. This is due to the delay announced by European commission and uncertainty around the FRTB implementation plan in the U.S., which could pose a difficulty in the trading activity for firms engaged in cross border trading activities
- PRA has proposed the following adjustments to the market risk framework:
  - Delaying the FRTB IMA to January 2028, while other aspects of the FRTB regulations like trading book boundary, SA and SSA will take effect from January 2027. Banks would be allowed to retain and use the existing internal model approach models during this period till January 2028
  - Simplification in the assignment of collective investment undertaking (CIUs, i.e., assets like mutual funds) to trading book. A CIU position will be allocated to trading book if it has at least 90 percent underlying holdings which would be allocated to a trading book. Additionally, if 90 percent of the underlying holding of a CIU can be looked through, then the CIU positions should be capitalised using a look through approach and the residual portion using a fallback approach
  - Allowing the banks to capitalise RRAO using an internally developed approach for certain products where they can demonstrate that the capital computed using the standardised approach for RRAO will be disproportionate to the risk.

U.K.: PRA in November 2022 issued the set of proposed rules with respect to the implementation of BASEL 3.1 standards, including FRTB. In December 2023, a near final version was issued for implementation of market risk framework based on FRTB rules. In July 2025, PRA proposed the go-live timeline for the FRTB SA and SSA rules as January 2027, and for FRTB IMA timelines are postponed to January 2028.

India: RBI in February 2023 published the draft market risk capital requirement by adopting the SSA approach of the BCBS guidelines.

Hong Kong SAR: Supervisory policy manual was issued by HKMA on March 2024. HKMA requires banks to calculate the market risk charge under new framework aligned with BCBS. HKMA implemented FRTB requirements beginning 2025.



U.S.: A joint consultation was published by FED, FDIC, and OCC as Notice of Proposed Rulemaking in July 2023. Expectation is FED will issue another draft proposal for industry to comment, targeting rule finalisation and the expected go-live timelines.

Europe: Europe official go-live implementation timeline was January 2025. Later, EBA postponed the implementation timeline by one year, until January 2026, since FED was yet to finalise their regulations. In Mar 2025, a consultation was released to gather the feedback on the FRTB application owing to uncertainty in the U.K. and U.S. regulations and implementation timelines. Based on the responses received, the European commission has decided to delay the implementation date by further a year until Jan 2027.

Singapore: MAS published the initial draft guidelines in September 2021. The proposal is largely consistent with Basel 3 minimum requirements for market risk. MAS implemented these requirements from January 2025.

** Map indicative only

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