Global Research
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FRTB implementation status across APAC

Market risk framework

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Executive summary

The first half of 2023 saw significant progress in the implementation of Basel III reforms, with particular emphasis on the revised market risk capital framework — the Fundamental Review of the Trading Book (FRTB) regulation. While India and China have published consultation papers on FRTB, regulators such as the Hong Kong Monetary Authority (HKMA), Japan's Financial Services Agency (FSA) and the Australian Prudential Regulation Authority (APRA) have revised their initial expected FRTB implementation timelines.

In this paper, we present the summary of FRTB implementation across the Asia-Pacific (APAC) region, highlighting key challenges specific to the region, proposed timelines, and a comparative approach across regional jurisdictions.

Introduction

In the aftermath of the Global Financial Crisis, the Basel Committee on Banking Supervision (BCBS) issued revisions to the Basel II market risk framework to address the most urgent issues exposed by the crisis. However, these revisions did not resolve the structural deficiencies of the framework. In response, BCBS initiated the FRTB regulation, an exhaustive set of new rules specifying the minimum capital requirements for market risk.

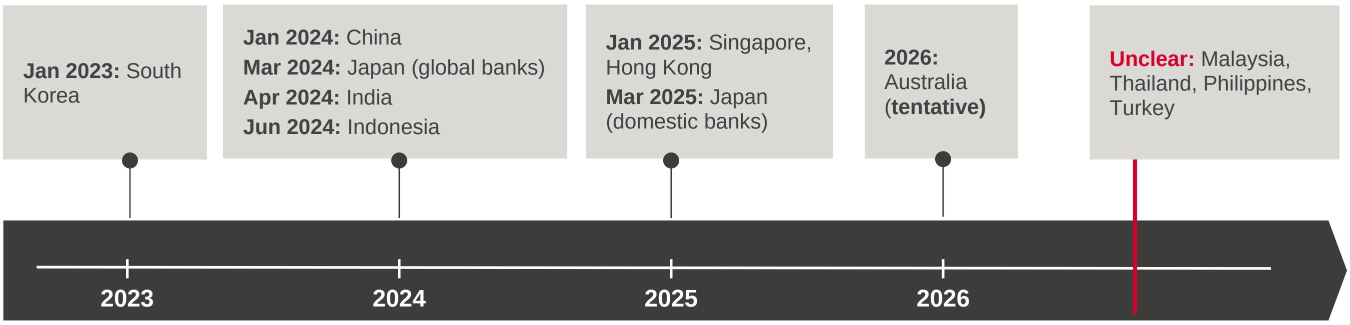
The FRTB regulation is expected to be implemented across APAC over the next few years, and it is anticipated that the new rules will be more punitive and increase the capital requirements for market risk.

Timelines

There is considerable uncertainty across the region regarding the regulatory timeframes. In APAC, not only do implementation timeframes vary from one jurisdiction to another, but there is also fragmentation in how regulatory bodies are approaching FRTB requirements. Recently, it has been observed that some regulators are monitoring other jurisdictions to ensure that their internationally active banks have a level playing field.

In terms of FRTB implementation timelines across key developed markets, Japan's FSA is expected to go live in 2024, HKMA and the Monetary Authority of Singapore (MAS) in 2025, while APRA has postponed its tentative go-live to 2026. In contrast, regulators from developing markets are yet to publish draft rules and timelines. Some of these regulators have initiated engagement with the banks.

FRTB implementation timelines across APAC



Challenges and rationale for delay

Local regulators are closely monitoring other jurisdictions' FRTB regulations and timelines to ensure that their internationally active banks have a level playing field.

- Local regulators are fully mobilised on credit risk, and there is a significant backlog of key international regulations that remain to be implemented, thereby delaying FRTB adoption
- FRTB implementation is anticipated to substantially increase the burden for financial institutions, considering the high implementation costs associated with FRTB approaches and additional capital pressure
- Banks estimate that due to the implementation of FRTB, the capital requirement will increase. The impact depends on the trading portfolio of each bank; in general, banks that have a diverse range of products are expected to experience a higher impact. The overall impact for the APAC region is difficult to ascertain due to differences in regulations, currencies, and diverse markets across countries

FRTB has been cited as the largest market risk overhaul in the past two decades. It offers opportunities for APAC banks to modernise their technology infrastructure, reshape their business and seek a competitive advantage.

FRTB implementation: Comparative study across APAC jurisdictions

Australia

FRTB implementation stage and timeline:

APRA has postponed the tentative effective date for the market risk framework (APRA's prudential standards, or APS, 116) to 2026. It is expected to publish draft regulations in 2024.

Draft approach:

APRA is implementing FRTB and credit value adjustments through revisions to the market risk framework (APS 116) and capital adequacy for counterparty credit risk (APS 180) in parallel, ensuring that any interactions are carefully considered.

China

FRTB implementation stage and timeline:

The China Banking and Insurance Regulatory Commission (CBIRC) published a draft consultation on new capital rules for commercial banks in February 2023, with the target effective date set for January 2024.

Draft approach:

CBIRC's proposed guidelines for market risk capital requirements are largely in line with the Basel III minimum capital requirements for market risk. However, there are slight divergences, as mentioned below.

Scope: China has classified banks into three buckets based on the scale of their adjusted on- and off-balance-sheet as well as cross-border exposures

Bucket	Definition	Capital rules
Bucket 1	Banks with adjusted on- and off-balance-sheet exposures of CNY 500 billion and above, or cross-border exposure above CNY 30 billion and 10% of total adjusted on- and off-balance-sheet exposures	Revised capital rules to closely align with the final Basel III rules
Bucket 2	Banks with adjusted on- and off-balance-sheet exposures of CNY 10 billion (included) up to below CNY 500 billion, or banks with adjusted on- and off-balance-sheet exposures below CNY 10 billion but cross-border exposure of more than zero	More simplified capital rules, largely unchanged from existing capital requirements
Bucket 3	Banks with adjusted on- and off-balance-sheet exposures below CNY 10 billion and no cross-border exposure	Most simplified capital rules, applying more granular risk weights for certain asset classes

CBIRC has mandated banks to use only external ratings from qualified rating agencies. In absence of external ratings, such issuers will be treated as unrated, which may result in higher capital charges.

Simplified standardised approach (SSA): Regarding specific risk capital requirements for issuer risk, excluding government and qualifying institutions, CBIRC has proposed an 8% credit risk weight for securities rated below BB+. Meanwhile, Basel III has specified the following risk weights: 8% for securities rated BB+ to BB-, 12% for those rated below BB-, and 8% for unrated securities.

Standardised approach (SA) and internal model approach (IMA): CBIRC's proposal is in line with the Basel III minimum capital requirements for market risk.

Hong Kong

FRTB implementation stage and timeline:

HKMA published the initial draft of the FRTB regulation in October 2022. In September 2023, it postponed the FRTB implementation date to align it with western regions. FRTB reporting is set to begin on July 1, 2024, while the capitalisation date will not be earlier than January 1, 2025.

Draft approach:

The HKMA guidelines for market risk capital are largely consistent with the Basel III minimum capital requirements for market risk. However, there are additional requirements, some of which are outlined below.

Scope: HKMA rules apply to authorised institutions incorporated in Hong Kong, with exemptions for small banks (market risk positions below HKD 60 million and 6% of total assets). Authorised institutions refer to deposit-taking institutions licensed by HKMA and comprise licensed banks, restricted license banks and deposit-taking companies.

SA: Under the sensitivity-based measure, the FX delta risk weight for the USD/HKD currency pair is set at 1.3%, whereas Basel specifies a 15% risk weight. As a result, USD positions for an HKD reporting currency entity will attract a lower FX capital charge.

HKMA has proposed to exclude centrally cleared instruments from "other" residual risk. However, these can be capitalised under the residual risk add-on (RRAO) for the exotic underlying. Meanwhile, Basel has recommended that all listed or centrally cleared instruments be excluded from RRAO. As a result, RRAO charges under HKMA could be higher than under Basel.

IMA: To be eligible for IMA, a minimum of 30% of the aggregate market risk charges should be from desks that qualify for internal models by satisfying the back-testing and profit and loss (P&L) attribution test. This is more stringent than the 10% criterion specified by

Basel. The implication here is that IMA eligibility becomes challenging under HKMA rules. Therefore, banks that have decided on IMA desks will need to re-evaluate their IMA desk nomination strategy. In case this 30% criterion is not satisfied, banks would need to follow SA, potentially leading to higher capital requirements.

Internal risk transfer (IRT): HKMA has proposed IRT treatment only for credit and interest rate risks, whereas Basel has specified IRT treatment for credit, interest rate and equity risks. Compared with other regulators or Basel, the capital charge for equity instruments in the banking book hedged through the trading book could be higher.

India

FRTB implementation stage and timeline:

The Reserve Bank of India (RBI) published draft regulations in February 2023, with implementation expected from April 1, 2024.

Draft approach:

RBI has proposed SSA for computing minimum capital requirements for market risk. The SSA provided in RBI guidelines is largely consistent with the Basel III minimum capital requirements for market risk. However, there are differences in classification of positions and risk weights.

- The capital requirement arising from SSA is the simple sum of the capital requirements arising from these risk classes – interest rate risk, equity risk, FX risk, commodity risk, and credit default swaps (CDS) in the trading book
- In interest rate risk, all debt securities are to be categorised into held-to-maturity or available-for-sale based on accounting classification. The risk weights are specified for each category. Basel requirements are silent on the accounting classification
- RBI has proposed market risk charge for CDS instruments as a separate category, whereas Basel treats all derivatives under specific and general interest rate risk
  - The general market risk under RBI for CDS is limited to interest rate risk that impacts the present value of premium payable/receivable
  - Specific risk exposures are classified into commercial real estate and others. Risk weights are defined based on classification, rating and residual maturity

Indonesia

FRTB implementation stage and timeline:

The Financial Services Authority of Indonesia (OJK) published the draft FRTB regulation in 2021. Under the Basel III regulatory framework, reporting will commence from January 2024 and capitalisation from end-June 2024.

Draft approach:

OJK proposed that banks use either SA or SSA for computing minimum capital requirements for market risk.

SSA: The proposal is consistent with the Basel III minimum capital requirements for market risk

SA: The proposal is largely consistent with the Basel III minimum capital requirements for market risk. However, there are additional requirements, some of which are outlined below:

- OJK proposed non-securitisation claims against the Indonesian government, public sector entities and multilateral development banks to assign zero percent risk weight
- OJK proposed that all listed or centrally cleared instruments be excluded from RRAO (both exotic and non-exotic underlying), whereas Basel specifies that listed or centrally cleared instruments without exotic underlying are allowed to be excluded. This could result in lower RRAO charges under OJK as compared with Basel

Japan

FRTB implementation stage and timeline:

Japan's FSA published draft regulations in May 2019. It proposed to implement the Basel III regulatory framework for all internationally active large banks by March 2024, and for small regional banks by March 2025.

Draft approach:

The proposal is consistent with the Basel III minimum capital requirements for market risk.

Singapore

FRTB implementation stage and timeline:

MAS published initial draft guidelines in September 2021. It specified that reporting would start from July 1, 2024, and capitalisation from January 1, 2025.

Draft approach:

The proposal is largely consistent with the Basel III minimum capital requirements for market risk. However, there are additional requirements, some of which are outlined below.

Scope: The standard applies to all Singapore-incorporated banks.

SSA: MAS has permitted banks with small and simple market risk portfolios to use SSA for calculating market risk capital requirements, subject to its approval. Furthermore, to assess whether a bank's market risk portfolio is small, MAS considers the size of the bank's risk-weighted assets (RWAs) for market risk in absolute terms, i.e., $200 million or lower, or 2% or less of the bank's total RWA.

SA and IMA: The proposal is in line with the Basel III minimum capital requirements for market risk.

FRTB implementation in other jurisdictions

Most of the global/ domestic systemically important banks (G-SIBs/ D-SIBs) from developed markets, such as Japan, Australia, China and Singapore, are planning to bid on FRTB-IMA and have already initiated significant investments in market risk infrastructure to support the new framework.

In contrast, developing markets such as Malaysia, Taiwan, the Philippines and Thailand are in the very early stages of their FRTB implementation journey as they await draft consultations. South Korean banks began FRTB reporting in January 2023, with limited material information available in the public domain.

Next steps to be FRTB-ready

As banks prepare for and implement FRTB, it can be viewed as an opportunity to enhance the overall risk management framework, including governance, risk measures, data infrastructure, internal models, reporting and ongoing monitoring.

Given the complexity and wide spectrum of the new rules, banks should begin planning for their implementation efforts in advance of the expected effective deadline. There are several key suggested steps for banks to take in preparation for the parallel run before reaching the actual reporting milestones.

Governance and processes

- Gap analysis between current state and target operating model
- Integration with business-as-usual exercises and other regulatory initiatives
- Revision of policies and procedures; enhancement of key processes (e.g., new product approval, TB boundary)
- Communication and senior management governance

Calculations

- SA calculations (SBA, DRC and RRAO)
- P&L attribution test
- Value-at-risk back-testing
- Expected shortfall
- Stressed expected shortfall
- Non-modellable risk factor determination
- IMA default risk charge

Data and systems

- Market data
- Position and trade data
- Time series
- Daily P&L
- Risk sensitivities
- Credit exposures
- Stress P&L and shocks
- Data analytics/ calculation engines

Reporting

- Assess FRTB reporting requirements
- 'What if' analysis
- Ad hoc analysis, desk level, legal entity-wise, and on a trade-by-trade or risk-factor basis

Our approach: Implementation potential

At CRISIL, we have developed an FRTB delivery framework covering data sourcing/ mapping activities and model validation. This framework is supported by a comprehensive approach to defining a multi-year implementation roadmap and high level project planning for the FRTB programme.

Timeline

1 | 2 | 3

1. Analysis of functional requirements

2. Test calculations and analysis of processual implementation aspects

3. Planning of the implementation project

Weeks

Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10

Analysis of functional requirements

- Identification of gaps in current state as against FRTB guidelines; insights on requirements ranging from data, system and desk to sensitivity calculation, governance, policies and reporting requirements
- Review of banking and trading book positions to analyse impact of the new methodology on capital consumption

Test calculations and implementation aspects

- Restructure desks to reduce complexity related to models and capital calculation
- Develop and maintain architecture and infrastructure capability to incorporate the granular desk-level data into risk and finance systems
- Identify and analyse portfolios for those asset classes, risk factors and trading desks contributing mainly to the capital charge
- Potential identification of data issues increasing regulatory capital
- Proof of concept (PoC) on capital requirements for SSA, SA and IMA

Planning of the implementation project

- Detailed documentation of current state along with results of gap study and remediation plans
- Remedial recommendations in line with market best practices along with a roadmap approach and robust check points help ensure the gaps are identified and addressed
- Target state architecture designing
- Detailed implementation roadmap along with prioritisation of key deliverables
- Programme governance, budgeting and terms of reference for key forums/ steering committees

CRISIL's client-tailored approach:

The FRTB requirements for large banks differ from those for small and medium-sized banks. For this reason, CRISIL offers a range of supporting options based on the size of the institution and the maturity of its current FRTB programme.

Client profile	Requirement
Banks with small trading books or linear products	SSA/ SA approach
Banks with strong foundational capabilities	Build an SA/IMA calculation engine, and desk optimisation
Banks with a rudimentary FRTB programme but less mature in foundational capabilities	Support in setting up systems and building calculation engines
Banks that have not yet initiated an FRTB programme	End-to-end support for the FRTB transition

CRISIL accelerators

Transformation and technology

- FRTB implementation programme design and management, regulatory interpretation, assessment and gap analysis
- Regulatory transformation and change management covering data acquisition, process re-engineering, regulatory reporting, policies and procedures, systems integration and testing
- Development/ deployment of risk engines and tools
- Maintaining data lineage across systems
- Capital quantitative impact analysis

Standardised approach

- Identification and remediation of sensitivity gaps across GIRR, equity, FX, commodity, and CSR – securitisation CTP, securitisation non-CTP and CSR – non-securitisation risk classes
- Building controls around the SA process and numbers to ensure accuracy and completeness across SBA (delta, vega and curvature), DRC and RRAO risk charges
- Independent calculator for all three SA components: SBA, DRC and RRAO

Internal model approach

Expected shortfall (ES)

- P&L attribution for individual desk-level IMA eligibility and VaR back-testing
- VaR to ES migration with variable liquidity horizons, ranging from 10 to 120 days, and a stressed calibration approach with a reduced set of risk factors
- Modellable risk charge computation based on the full and reduced set of risk factors across variable liquidity horizons and stress period calibration

Non-modellable risk factors (NMRFs) and market data

- Risk factor eligibility test, including identification, creation of product mappings, and the performance of observability checks
- NMRF optimisation and management
- Calculation of SES
- Establishing policies and procedures to map real price observations of risk factor bucketing

DRC

- Inclusion of equity names in the scope of DRC; use of the two-factor model and exclusion of migration risk

Appendix: FRTB timelines

Country	State	Tentative go-live date	SSA	SA	IMA
Australia	Postponed	2026			
China	Draft rules	January 2024	✓	✓	✓
Hong Kong	Draft rules	January 2025	✓	✓	✓
Japan	Draft rules	March 2025	✓	✓	✓
India	Draft rules	April 2024	✓		
Indonesia	Draft rules	January 2024	✓	✓	
Singapore	Draft rules	July 2024	✓	✓	✓
South Korea	Draft rules	January 2023	Insufficient material information available in public domain		
Taiwan	Postponed	2024			

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