

Implementation of the Fundamental Review of the Trading Book in Hong Kong

January 2019



Overview of FRTB

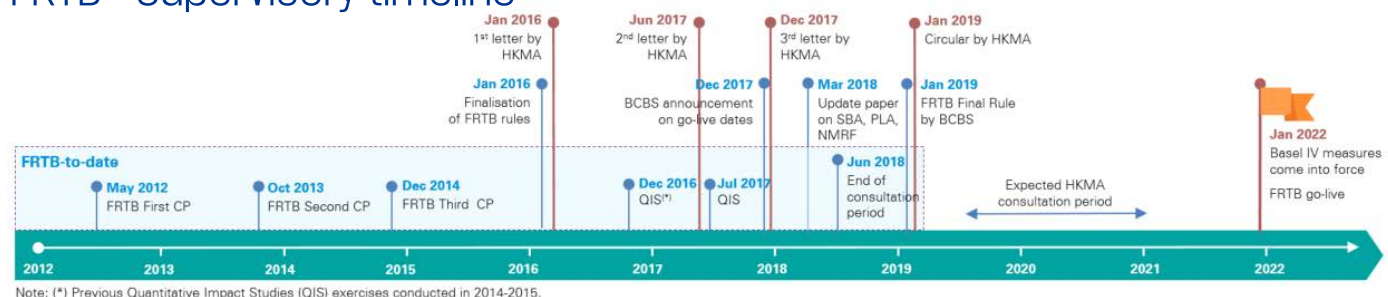
The global financial crisis of 2007 and 2008 revealed significant weaknesses in the market risk capital (MRC) framework. To achieve a more robust framework, the Basel Committee on Banking Supervision (BCBS) issued a series of Consultation Papers (CPs) known as The Fundamental Review of the Trading Book (FRTB).

After a number of iterations since the first CP in 2012 and the revised standards in 2016, **the BCBS issued its final 'minimum standards for market risk capital requirements' (often referred to as FRTB) on 14 January 2019.** The new requirements propose material changes to the way banks determine the capital required to support their trading activities. The main changes to the 2016 revised standards are:

- Revisions to the scope of application of the framework;
- Recalibration of the standardised approach (SA) to market risk;
- The introduction of a simplified standardised approach;
- Amendments to the profit and loss attribution (PLA) framework;
- Amendments to Non-Modellable Risk Factors (NMRF);
- Revisions to the trading desk requirements; and
- A one year transitional period (during 2022) for the implementation of part of the Internal Models Approach (IMA).

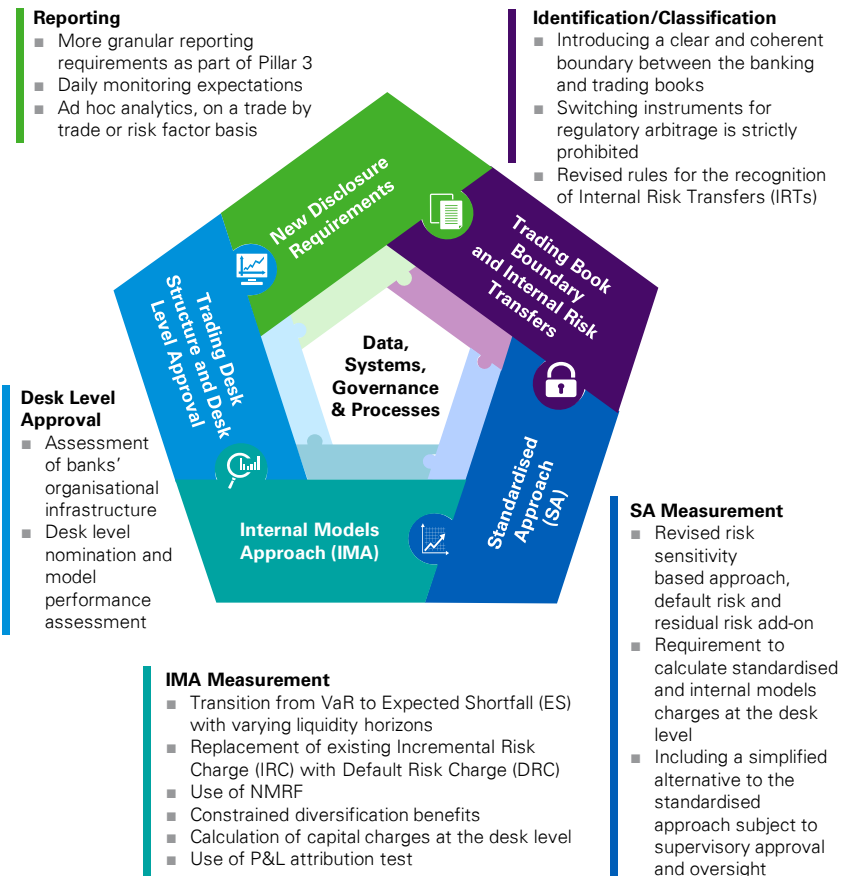
The newly proposed framework will require a significant overhaul to banks' current internal systems, processes and infrastructure. Particularly for banks using IMA, market risk capital charge will need to be calculated at the trading desk level. The timeline to implement the changes required to meet the new FRTB requirements will be in parallel with a number of other regulatory programmes across Front Office, Risk, Finance and IT departments. FRTB will require 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.

FRTB - Supervisory timeline



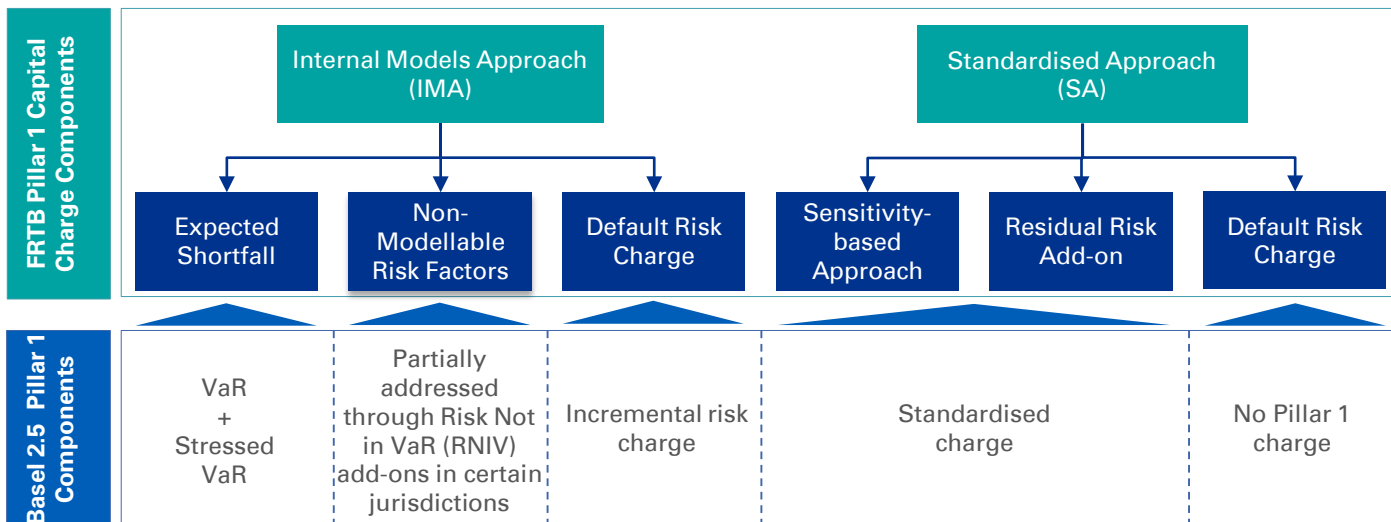
The final rules

The Hong Kong Monetary Authority (HKMA) published a circular on 17 January 2019 and is expecting to closely follow the BCBS standards. **The HKMA plans to align the local implementation with the latest BCBS timetable (i.e. 1 January 2022 as previously communicated in 2017), and issue a consultation paper in the second quarter of 2019. The HKMA has urged all locally incorporated Authorized Institutions to start working on their firm-specific FRTB implementation within 2019.** The FRTB final rules mainly focus on the five aspects below:



Market risk capital components under FRTB

The chart below provides an overview of the market risk capital charge components under FRTB and a comparison to the components under Basel 2.5. It is important to note that under FRTB, the SA will act as a “floor” to the IMA. Banks now need to perform standardised calculations using the revised approach at the trading desk level and as if they were a standalone regulatory portfolio.



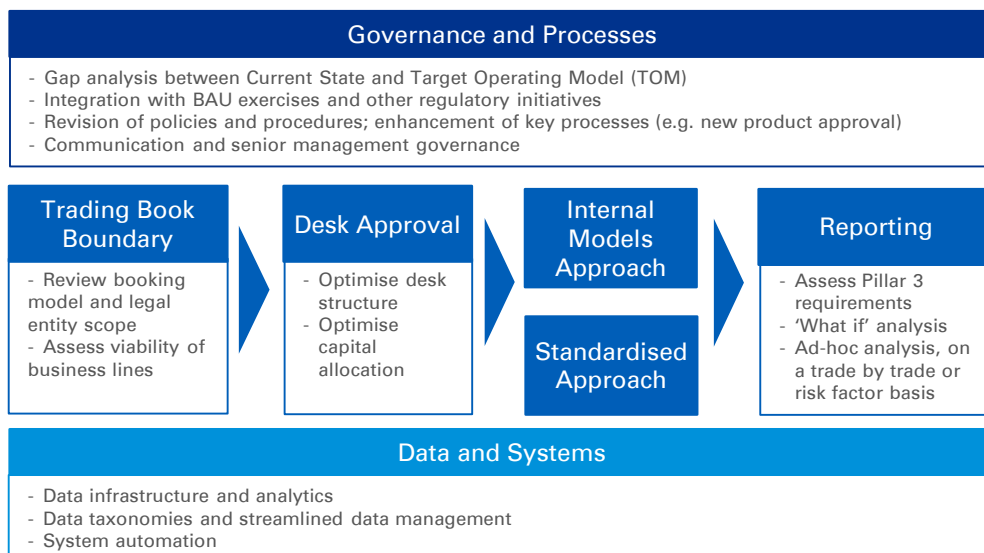
Key facts on adopting FRTB

 Capital	<ul style="list-style-type: none"> The BCBS quantitative impact study (QIS) based on December 2017 data indicated that banks that use the standardised approach exclusively are expected to see a weighted average of a 30 percent increase in capital requirement, while the expected impact on banks that use the internal models approach is an increase of 20 percent. Furthermore, banks that use the simplified alternative approach to the SA are expected to see a 57 percent increase in capital requirement
 Structural	<ul style="list-style-type: none"> Restructure businesses across Markets, Treasury and Banking Book Heterogeneous impacts on individual products and markets Significant impact on transfer pricing and inter-desk transfers
 Implementation	<ul style="list-style-type: none"> Banks will need to consider upgrading and/or consolidating trading platforms Most banks will need to implement new Risk Engines and enhance P&L validation processes
 Size and Scale	<ul style="list-style-type: none"> Large global banks could expect to incur costs of up to USD 200 million for FRTB implementation. Small to medium banks will incur lower costs but the project scale will still be sizeable Banks estimate a 18 to 24 month implementation timeline Banks expect a 6 to 12 month parallel run period

Next steps

As banks prepare and implement FRTB, it can be viewed as an opportunity to improve 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 to plan for their implementation efforts in advance towards the expected effective deadline of 2022. There are a number of key suggested steps (as shown on the right) for banks to take in order to prepare for the parallel run prior to 2022.



Client-tailored approach

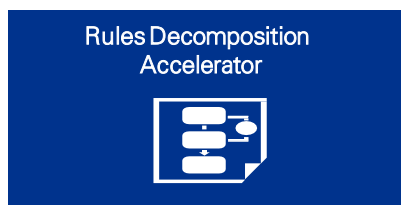
The FRTB requirements for large banks differ from those for small and medium banks. For this reason, KPMG has a range of supporting options depending on the size of your institution and the maturity of your current status. For example:

- Banks with small trading books or vanilla products are more likely to choose the standardised approach.
- Banks with strong foundational capabilities may be required to build an SA/IMA engine and desk optimisation.
- Banks with an embryonic FRTB programme but less mature in foundational capabilities may need support in setting up the systems and building calculation engines.
- Banks that have not yet initiated an FRTB programme would benefit from the end-to-end support of the FRTB transition.

KPMG Accelerators

KPMG has a leading role in interpreting FRTB rules and establishing best-in-class programmes. We have a dedicated local team and a global working group, which has a firm footing in the market. We actively participate in contributing market insights, white papers and training on FRTB.

KPMG offers a suite of solutions to help you navigate FRTB implementation. Below are the examples of accelerators we have developed:



- Accelerate FRTB impact analysis through decomposing the rules and manage rule ownership assignment
- Conduct Gap Analysis based on the new FRTB rules
- Provide end-to-end rule traceability from rules to business requirements, functional requirements and UAT

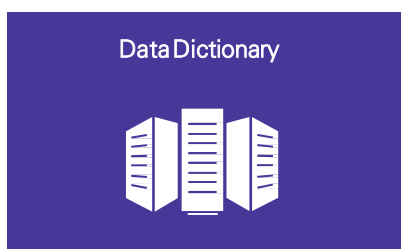


- Use of our established and validated SA Market Risk Capital Calculator
- Validation tool for third party vendors' solutions
- Capable of performing detailed capital analysis and optimisation studies



- Provide the nuts and bolts of the model-based approaches of the SA and/or IMA.
- Provide detailed calculation examples and templates for clear illustration of the calculation logic.

Other than the above-mentioned accelerators, KPMG has a number of solutions designed for other relevant regulatory exercises, including a data dictionary for regulatory reporting, SA-CCR and LIBOR reform.



- Identify all decomposed data elements required for the calculations
- Establish data lineage and convergence for enhanced traceability
- Tag data elements with rule references



- Perform a step-by-step exposure at default (EAD) calculation according to the Standardised Approach for Counterparty Credit Risk (SA-CCR)
- Perform CCR capital charge assessments across different types of products



- Develop an AI-based solution to facilitate LIBOR reform, including adopting an automated process engine to read and assess contracts and agreements with LIBOR references, interpreting and prioritising challenging and non-standard transactions, identifying alternative floating rates and tracing rate reset mechanisms

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