



Fundamental review of trading book

A brief overview

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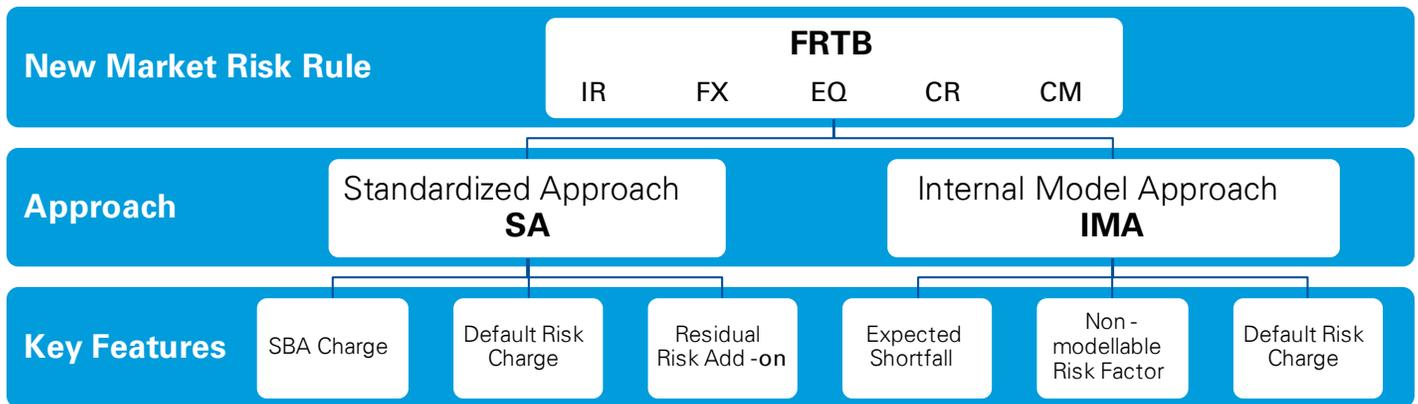
FRTB – The new market risk paradigm

The Basel Committee of Banking Supervision (BCBS) published the Fundamental Review of Trading Book (FRTB) final rule on January 14, 2016 after five years of discussion, four quantitative impact studies (QIS) and three consultative papers. This is the

first of many rules related to Basel IV that are anticipated to be finalized over the next several months, and expected to have a far-reaching impact on risk measurement, assessment, and reporting at financial institutions worldwide.

Jurisdictional interpretation and adaptation by the central banks (U.S. FED, FRB, ECB, and BoE among others) are imminent given an implementation deadline of January 1, 2019, and a “Go-Live” deadline of December 31, 2019.

FRTB – In a snapshot



The principal elements of FRTB final rule along with the regulatory rationale are described below:

- *Strict rule-based definition for the trading/banking book boundary* to minimize regulatory capital arbitrage by imposing strict limits in internal risk transfer (IRT) and neutralizing capital relief when switch is made barring a few exceptional cases.
- *A more sophisticated standardized approach (SA)* based on risk factor sensitivities to adequately capture risk associated with complex products and to align it more closely with the model-based approach. The Sensitivity-Based Approach (SBA) capital charge includes an enhanced risk charge to account for linear and nonlinear risk sensitivities, a default risk charge (DRC), and a residual risk add-on (RRA) to discourage exotics trading. The new SA is based on a pseudo model framework, along with prescribed risk weights and correlation parameters.
- *Refined internal model approach (IMA)* applied at trading desk level versus enterprise level, thus enabling better alignment of capital calculations and risk measurement at a more discrete level.
- *Value-at-Risk (VaR) is replaced with expected shortfall (ES) risk measure* in revised IMA in order to address

the inadequacy of threshold-based risk measures and to capture the magnitude of losses in the tail of distribution. VaR at 99 percent (in Basel 2.5) has been replaced by ES at 97.5 percent confidence level in revised IMA. This also eliminates the double counting of risk (by use of VaR and stressed VaR) and replaces it with a single risk measure, expected shortfall (ES).

- *Inclusion of market liquidity horizons (LH)* explicitly for different assets classes to replace ad hoc liquidity multipliers from Basel 2.5. This addresses concerns that the current framework uses a one-size-fits-all approach and does not account for differing levels of liquidity for various products, including underestimating the market liquidity for illiquid assets. The liquidity horizons in FRTB range from 10 to 120 days depending on the complexity of the asset type.
- *Ongoing monitoring of IMA-eligible trading desk through backtesting and Profit and Loss Attribution (P&L)* for continued eligibility for the model-based approach. The backtesting test provides an assurance that trading desk risks are well captured in the model with a high confidence, while P&L attribution criteria tests how much of the trading risk is captured within the model. This also addresses a key concern about the lack of credible threat for revoking

permission for model-based capital calculation if models fail to keep up.

In addition, there are other requirements to make the current Basel 2.5-based market risk rule more robust:

- The SA-based capital calculations are mandatory for all trading desks irrespective of IMA eligibility.
- Regulatory approval of trading desks that elect an internal models-based approach for regulatory capital calculation.
- The IMA approach accounts for all modellable risk factors, and also includes a capital charge associated with non-modellable risk factors (NMRF). In addition, this includes an add-on capital charge, stressed expected shortfall (SES), which is a VaR-like risk measure calculated with stressed calibrations.
- Extensive reporting and management information requirements, including intraday exposure measurement for IMA approach.

What is different in the final rule?

There are a few subtle and not-so-subtle changes in the final rule compared to the last consultation paper.

- Some risk weights in the standardized approach have been revised lower, while certain risk weights have increased for well-understood types of risk such as IR and FX.

- Vendors are included as additional source of price data, but it has to meet the original requirements.
- The residual risk add-on (RRA) for nonexotic assets has been lowered to 10bps, while maintaining RRA at 1percent for exotic products.
- Full revaluation at 10D base horizon is no longer the requirement in the final rule.
- The liquidity horizons (LH) have been revised favorably and capped at 120 instead of 250. The LH have been lowered for various exotic products that were thought overly conservative in the previous version of the rule; credit spread products (including IG/HY corporate credit, HY sovereign credit) and small cap equity volatility have benefited from this change.
- At the top of the house, the capital multiplier is increased from 1 to 1.5, and can be higher depending on backtesting outcomes.
- P&L attribution can rely on bank's desk pricing models instead of risk systems and allows exceptions in rare circumstances. Intra-day reporting has been added in the final rule.

Key challenges for the banks

Under FRTB market risk regime, banks face myriad challenges that include viability of certain business lines. For example, securitization, including correlation trading, distressed debt trading, HY CDS trading, and other exotic products with longer liquidity horizons, is gaining regulatory approval of trading desks for model-based capital calculations, ongoing assessment and monitoring of trading desk's IMA eligibility, extensive data requirements to meet length of calculation horizons, and finally adapting and socializing the new risk measure (ES) among senior management.

Other challenges faced by the banks are to socialize the capital impact throughout the organization and to combine FRTB implementation with other changes being carried out across the bank (such as CCAR, model risk/governance, counterparty credit risk). Getting adequate budget allocation for implementing the required FRTB metrics, increased operational burden due to intra-day risk measurements, and desk-level reporting are also some of the key challenges facing the banks.

Final thoughts

The FRTB market risk rule changes are forcing banks to examine the viability of certain types of trading businesses. Banks are questioning their risk appetite for businesses with low ROC potential but high regulatory maintenance standards. While financial institutions are still waiting for domicile-specific guidance from local regulators, the rules are not expected to deviate significantly from BCBS guidelines.

The implementation challenges to meet new requirements remain steep. These span across additional data and analytics needs, infrastructure for trading desk approval process, ongoing P&L attribution, model governance, and meeting more granular-level reporting requirements.

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