

Ten key points from Basel's Fundamental Review of the Trading Book

On January 14th, the Basel Committee on Banking Supervision (BCBS) published its revised capital requirements for market risk. The final standard, also known as the Fundamental Review of the Trading Book (FRTB), is intended to harmonize the treatment of market risk across national jurisdictions and will generally result in higher global capital requirements. BCBS estimates a median capital increase of 22% and a weighted-average capital increase of 40%. However, we believe this impact can be somewhat mitigated by portfolio re-optimization.

- 1. Standardized approaches continue to gain regulatory favor.** The final framework allows banks to calculate their capital requirements using a new standardized approach (SA) or, for certain qualifying trading desks, a regulator-approved internal model-based approach. However, the framework's requirements are clearly designed to push firms toward the new SA, which is consistent with the overall regulatory trend of moving away from internal model-based approaches.¹ This is evidenced by the framework's more stringent requirements applicable to the use of internal models (e.g., around regulatory model approval and desk-level reporting).
- 2. The new standardized approach is more risk sensitive.** The new SA for capital calculation relies on a bank's pricing models to capture more granular and complex risk factors across different asset classes in the trading book. It is more risk sensitive than the currently effective Basel II SA and is likely to result in significantly higher capital charges for certain businesses due to its inclusion of residual and basis risks that are not captured by the Basel II SA. The new SA is also likely to increase regulatory capital due to the removal of capital credits for diversification within an asset class.
- 3. The new boundary between the trading book and banking book will limit the potential for regulatory arbitrage.** The final framework imposes stringent rules for internal transfers between the trading and banking books, defining a new boundary based on a bank's intent to trade an asset or to hold it to maturity. The framework also introduces a presumptive list of assets that should be placed in the trading book unless a justifiable reason exists not to do so. These provisions are intended to limit an institution's ability to move illiquid assets from its trading book (where assets must be marked to market) to its banking book, thereby avoiding higher capital charges. It is not clear that the revised boundary will be effective in reducing such positioning in all jurisdictions, as national regulators are given discretion in defining their asset lists.

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- 4. Internal models attract more regulatory scrutiny.** Internal models will be subject to regulatory approval at the trading desk-level,² supported by granular performance measures. This desk-level approval process will be primarily driven by verification of model accuracy through P&L attribution tests and backtesting using daily model results. In addition, compared to the 2014 proposal, the final framework's treatment of models that generate inaccurate results is more stringent, as evidenced by the more punitive multiplier which increases regulatory capital requirements after a given number of exceptions are encountered during desk-level backtesting of a model. The final framework's daily P&L attribution and backtesting requirements will necessitate substantial technology infrastructure development by many institutions, and further challenge internal model review and governance.
 - 5. A new, costly measure to capture internal models' tail risk.** The final framework replaces Value at Risk (VaR) and Stressed VaR (SVaR) measures for capturing risk with a new Expected Shortfall (ES) measure for the internal model-based approach. As the new ES measure captures tail risk (unlike VaR and SVaR), capital requirements will likely be higher under the final framework. Furthermore, tail risk capture comes at a significant cost, as data requirements and operational complexities of the ES measure are likely to be extensive.
 - 6. More granular liquidity horizons for the internal model-based approach.** The final framework increases the granularity of liquidity horizons (i.e., the time needed to sell or hedge an asset during market stress without adversely affecting prices) by stipulating specific liquidity horizons by asset class. The overall impact of this change is again likely to be higher capital requirements – many assets will become subjected to longer liquidity horizons and therefore will face higher capital charges. However, the final framework brings *some* good news for the industry, as liquidity horizons across some asset classes have been reduced from those earlier proposed by approximately 30% to 50%. This change responds to industry comments that the proposed horizons were not representative of historical performance during the financial crisis.
 - 7. Capital requirements likely to also increase due to the introduction of non-modellable risk factors (NMRFs) in the internal model-based approach.** Under the final framework, only risks that meet strict data availability and quality requirements are deemed modellable. All other risks (i.e., NMRFs) must be accounted for by a catch-all capital charge which is calculated for each NMRF based on a risk-specific stress scenario. The results from the BCBS's 2015 quantitative impact study suggest that this capital charge will not be trivial.
 - 8. Credit migration risk no longer double counted with the introduction of the Default Risk Charge (DRC).** The final framework replaces the capital charge for incremental risk (IRC) in the internal model-based approach with the DRC. This change reflect concerns that credit migration risk (i.e., the risk of credit deterioration over time) was previously double-counted, once as part of credit risk volatility and once as a stand-alone modelled risk. While this is good news for the industry, the mandatory inclusion of equity products in the DRC calculation will bring new challenges due to the large number of issuers and low correlation in performance between various equities.
 - 9. Correlation trading positions (CTPs) no longer allowed to be measured using internal models.** Under the final standard, CTPs must be captured using the SA, similar to other securitization positions. This is due to regulatory concerns around the ability of internal models to adequately capture CTPs' risk.
 - 10. Banks will need more data and stronger data analysis to meet new risk measurement and reporting requirements.** The final standard imposes new internal and external reporting requirements, including monitoring market risk on an intraday basis and measuring market risk capital as of the end of the previous day. Furthermore, banks that continue to use internal models face even stricter requirements, as they have to report risk capital under both the SA and internal model-based approach. These banks will also have to report their key modelling assumptions to regulators in order to facilitate a better understanding of the variations between standardized and internal model-based results.

What's next?

BCBS calls for the adoption of FRTB by each jurisdiction before January 2019 and for compliance to begin by December 2019. We do not expect US regulators to adopt the standard until 2018 because they are likely to wait for any changes to the framework that may result from the impact of other evolving global standards and recalibration by BCBS.³

Appendix – Key FRTB changes from existing standard, and implications

	Changes from existing standard	Implications
Standardized approach	<ul style="list-style-type: none"> • Mandatory capital calculation under SA • Correlation trading positions capitalized only under SA • New risk factor definitions • Correlation or disallowance factor methods to capture basis risk • Diversification limited within an asset class • Revised treatment of optionality 	<ul style="list-style-type: none"> • Significant increase in the cost of capital for certain businesses due to changes to SA • Ambiguity in risk factor definitions can lead to variation in measurement of risks across trading desks and firms • Infrastructure and other implementation challenges (e.g., to capture and analyze complicated risk metrics)
Internal model-based approach	<ul style="list-style-type: none"> • ES to replace VaR and SVaR to capture tail risk • Introduction of granular, asset-class specific liquidity horizons (LH) • Introduction of non-modellable risk factors • DRC to replace IRC 	<ul style="list-style-type: none"> • Tail risk is captured through ES but will require extensive modelling efforts • Longer LH resulting in higher capital charges • Fewer risks deemed modellable due to rigorous data requirements • Migration risk modelling no longer required under DRC
Trading & banking book boundary	<ul style="list-style-type: none"> • Stringent requirements on risk transfers between the trading book (TB) and banking book (BB) to limit regulatory arbitrage • “Presumptive list” of TB-eligible assets with focus on trading intent • Pass-through approach for risk transfer pertaining to equity/credit risk trades • Hedging recognition based on stress period hedge effectiveness 	<ul style="list-style-type: none"> • Limited ability to move illiquid positions between TB and BB • Maintenance of non-core mandate risks in BB • Potential variation in national implementation of presumptive lists of TB-eligible assets • Increased operational costs due to multifaceted process and technology infrastructure changes
Scope	<ul style="list-style-type: none"> • Desk-level model review and approval requirements • Desk-level P&L attribution and backtesting to be performed daily • Intra-day monitoring and measurement of market risk • More granular assessment of model performance 	<ul style="list-style-type: none"> • Significantly higher volumes of model outputs for each desk • Substantial technology infrastructure development necessary for most firms • Implementation challenges for daily P&L attribution • Potential discrepancies between backtesting (VaR-based) and capital calculations (ES-based) due to different drivers
Reporting	<ul style="list-style-type: none"> • Enhanced public disclosures on market risk capital charges including mandatory calculation under SA • Consistent approach to reporting by banks across jurisdictions • Disclosure of explanation on variability of market risk-related risk-weighted assets 	<ul style="list-style-type: none"> • Desk-level disclosure of SA capital charges • Extensive infrastructure changes to support reporting requirements • P&L attribution and backtesting results required to be reported

Endnotes

1. See PwC's *First take, Basel's re-proposed standardized approach for credit risk* (December 2015).
2. Desk-level regulatory approval of internal models is already in effect in several countries, including the US.
3. BCBS anticipates further refinement and recalibration of market risk measures due to the impact of related evolving frameworks including credit valuation adjustments standards, capital requirements for credit risk, treatment of sovereign exposures, and interest rate risk in the banking book. BCBS has also indicated that it would provide additional guidance pertaining to market risk disclosures.

Additional information

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