

Case study: Traded Market Risk

Illustration of how IMA banks have accelerated their FRTB deliverables, regulatory interactions and analysis of capital drivers with IHS Markit's Traded Market Risk

Background

The Fundamental Review of the Trading Book (FRTB) requires banks to make a more rigorous assessment of their exposure to market risk, including new eligibility tests for risk factors used to derive capital requirements under a revised Internal Model Approach (IMA). With changing deadlines for compliance and varying local interpretations, firms continue to struggle with the complexity of the guidelines under fluctuating budgets.

A leading tier 1 bank looked for an agile yet robust solution that would help them gain insight on and build their internal business case for FRTB IMA. This both supported regulatory QIS and refined their business and infrastructure strategies ahead of regulatory go-live. In particular, they needed to:

- Reduce the total cost of ownership of their FRTB infrastructure and shorten time to delivery both for programmes and QIS
- Gain visibility on the capital impact of new trades, model assumptions and changing market conditions
- Manage exposure and resulting market risk capital requirements more effectively
- Hedge their implementations against global or local regulatory updates

Solution

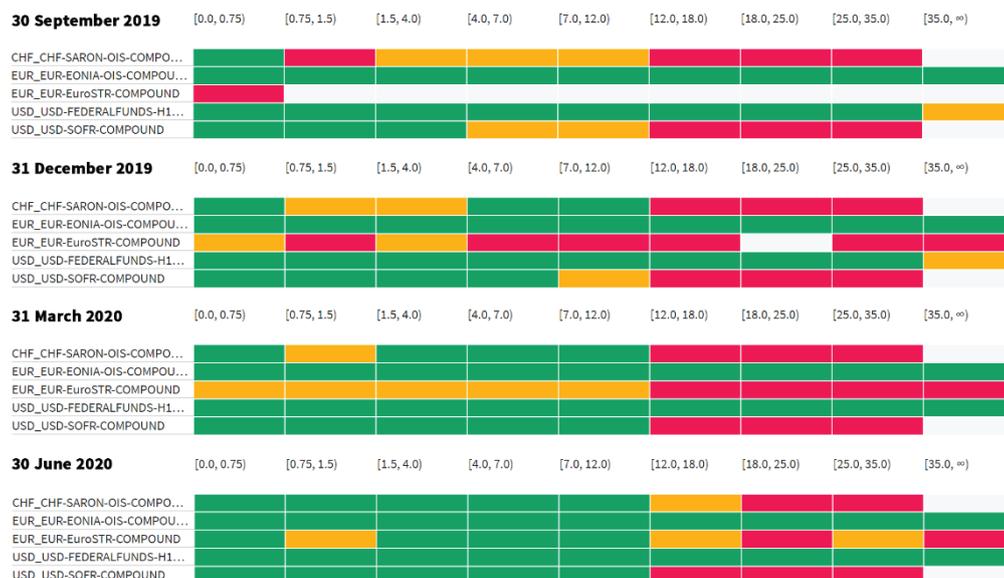
Traded Market Risk from IHS Markit, supports compliance with the Basel market risk requirements by providing a hosted service that combines IHS Markit's market-leading data with cutting-edge analytics. Supported by a team of trusted subject matter experts, Traded Market Risk helps firms to reduce the impact, cost and complexity of market risk projects. For FRTB more specifically, it delivers IMA or SA capital management through to IMA-specific requirements of passing the Risk Factor Eligibility Test (RFET) or ES vs SES scenario generation and NMRP proxying.

Under volatile market conditions, early adopters could utilise pre-populated, market-representative RPO datasets delivering realistic and actionable RFET results. These datasets, updated daily, drove pro-active investigations across interest rate, credit, equity or FX derivatives depending on current market liquidity or portfolio composition. As one user commented, "it was very easy to demonstrate the benefit of RPO pooling on IMA capital".

"A powerful decision-making tool to inform day-to-day project activities helping them to drive buy-in from senior management and regulators."

"We rolled out a full-scale QIS capability in 2 months delivered the business case 9-12 months earlier than with an internal build model."

Whilst many banks have similar broad RFET definitions, the consequences of risk factor observability translate very differently in IMA capital terms on individual portfolios. Using Traded Market Risk, FRTB quants could measure the capital impact of a change in modellability mapping assumption or NMRF proxy decision in a matter of minutes using its sensitivity-based capital what-if capability. This gave the bank a powerful decision-making tool to inform day-to-day project activities. This in turn drove buy-in from senior management as well as regulators and enabled the bank to run multiple capital scenarios concurrently with next to no impact on their existing infrastructure.



“The bank was able to increase modellable risk factors eligible for ES models under IMA by 40% on average.”

Figure 1: FRTB RFET/modellability results on OIS curves over 4 consecutive quarters

Other FRTB teams using Traded Market Risk have also built rapid insight into IMA vs SA benefits and key focus areas for data or model fine-tuning despite regulatory delays by leveraging our agile self-service configuration capability. This has helped shape regulatory interactions and maximise value under growing budget constraints while educating internal stakeholders and regulators alike on their model assumptions and capital analyses.

Project outcomes and benefits

Accelerated time-to-delivery

Traded Market Risk offered an accelerated time-to-delivery where the bank rolled out full-scale QIS capability for the first asset class in two months and the whole portfolio in under 6 months after an initial proof of concept. A single user can now update current QIS analyses as a part-time activity in a month. Another bank was able to deliver IMA vs SA business case decision 9 to 12 months earlier compared to internal builds.

“We accelerated IMA programmes by 2 years at least with 50% of originally estimated resources.”

Reduced capital charges

One of the banks was able to increase modellable risk factors eligible for ES models under IMA by 40% on average for interest rate derivatives by using the Traded Market Risk FRTB data service. They were able to proxy another 20% non-modellable risk factors on average across asset classes by using the scenario service thereby attracting much lower SES capital charges on the resulting basis.

Reduced total cost of ownership

Clients have significantly reduced the Total Cost of Ownership (TCO) for FRTB with Traded Market Risk and have on average accelerated their IMA programmes by 2 years at least with 50% of the resources originally estimated, where internal IMA builds tend to take 2.5 to 3 years with 20+ specialised resources. The resulting reprioritisation of resources enabled them to focus on key internal requirements instead which benefit the bank beyond FRTB, such as pricing library enhancements or data remediation.

Agile implementations

By using the Traded Market Risk modular implementation, the bank could prioritise the most relevant infrastructure components first and leverage in-house developments (or third-party projects) as and when required. This also helped smooth “stop/start” phases of FRTB programmes subject to budget revisions and timeline changes.

Non-invasive, realistic model tuning

However, a realistic, bank-specific IMA configuration requires 12 to 18 months of “model tuning”. This ranges from refining RFET mappings to validating market data and proxy choices to understanding the impact of changes in the portfolio, market liquidity or prices or even the consequences of failing model validation. This requires the risk analysts to be able to run realistic analyses in accessible, non-invasive infrastructure while implementation is being executed in parallel.

“Access to IHS Markit’s subject matter experts made a huge difference in our implementation. Their functional and technical thought leadership inspired many of the decisions we have made both from a model configuration and from an architecture point of view” says one technical sponsor.

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Financial Risk Analytics

Financial Risk Analytics, by IHS Markit, provides products and solutions to financial institutions to measure and manage their counterparty credit risk, market risk, regulatory risk capital and derivative valuation adjustments. Using the latest analytics and technology such as a fully vectorized pricing library, Machine Learning and a Big Data stack for scalability, our products and solutions are used by the largest tier-one banks to smaller niche firms. Our solutions are available in the cloud and can be run as a service, so we free up your internal resources to focus on your business priorities.

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