quantifi

Newsletter | Autumn 2017

IN SIGHT

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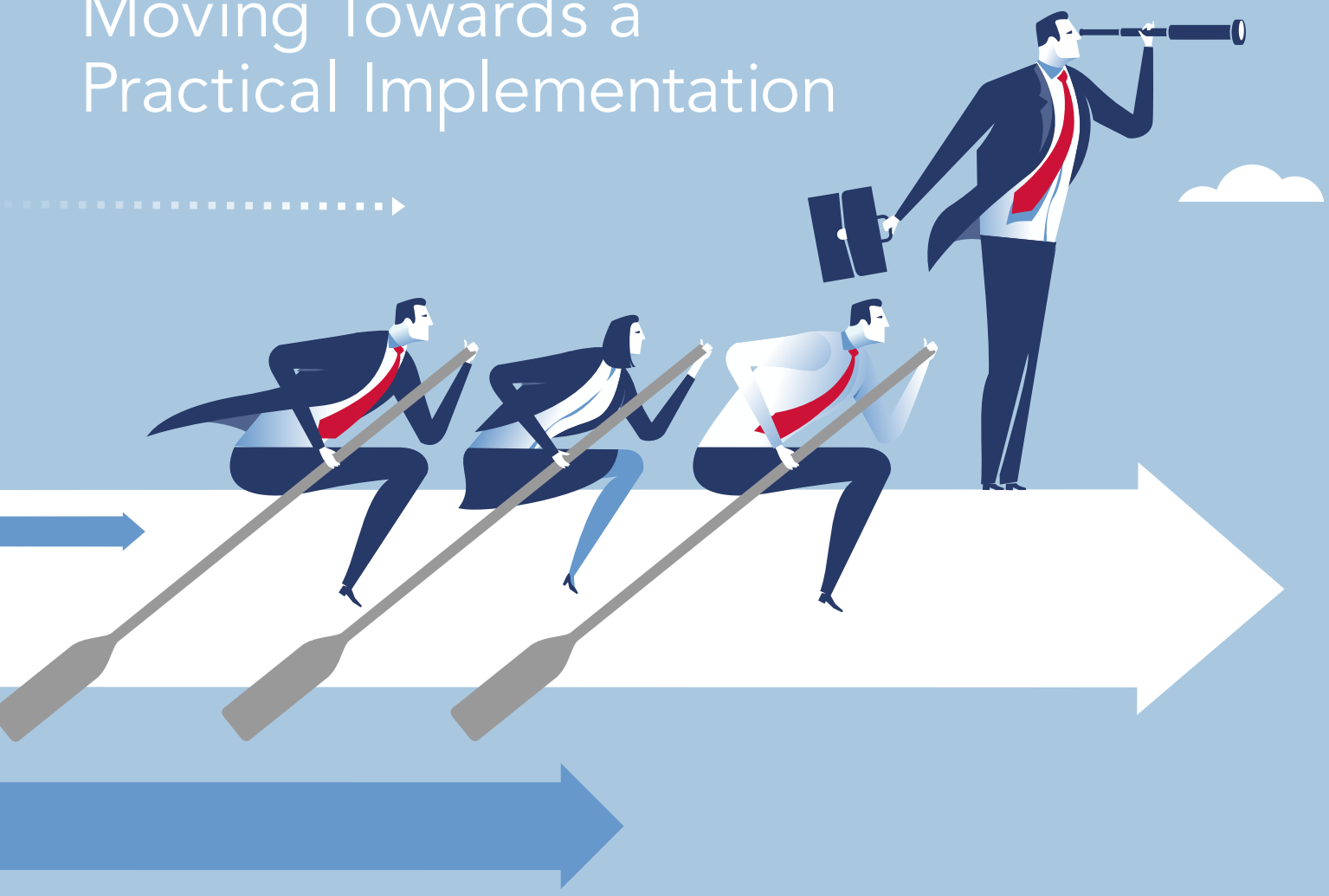
FRTB

Moving Towards a Practical Implementation



Message from the CEO

Fintech innovation is a major driver of the capital markets. With increased competition, customer expectations and regulatory scrutiny, innovation is no longer an option, but an imperative. Within the FinTech domain, some of the key areas of focus are blockchain, artificial intelligence and next-generation technology focused on enhancing performance. The increased demand for higher performance risk and analytics has put emphasis on how to get the most out of the latest generation of hardware. Vectorisation is a recent innovation designed to support this demand as it dramatically improves the performance of code running on modern CPUs by running multi-threaded or grid-distributed calculation, known as parallelism. This issue of InSight highlights how parallelism has become a routine part of designing performance critical software.

Since 2008, the financial markets have been under intense regulatory scrutiny. The Fundamental Review of the Trading Book (FRTB) is one of the most recent rules designed to provide greater stability to the financial markets. Making a key change to a regulatory regime has a major bearing on the industry's capital, costs, operations and competitive dynamics. This also presents operational and technology challenges which is why it is important that technology strategy and investment decision have sound foundations. At Quantifi we are currently engaged with several banks on how we can support their business strategy and help them meet the significant demands of FRTB implementation.

Our lead article highlights the main changes being introduced by the new market risk standards and the related data, modelling and technology challenges. The topic of FRTB will be hotly debated by senior industry practitioners at our annual risk conferences in London and New York.

Over the past 12 months we have seen considerable new client activity, both on the buy and sell side. OEKB, Austria's main provider of financial and information services, extended its usage of Quantifi for enterprise market risk. On the buy side, New Zealand Superannuation Fund (NZSF), a NZ$35 billion sovereign wealth fund, selected Quantifi as its core front-office and enterprise risk management solution. We also recently released Quantifi Version 15, which incorporates new functionality to help clients optimise capital, costs and resource.

As the market continues to evolve, we are pleased clients recognise the benefits of using Quantifi and our ability to support their business for the long term.

Rohan Douglas, CEO, Quantifi

Cover Story

FRTB: Moving Towards a Practical Implementation

The cover story explores how FRTB is set to revolutionise current market risk practices regarding coordination of operational, risk and data management processes as well as systems and technology.

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New Zealand Super Fund Selects Quantifi for Front Office and Enterprise Risk Management

"Quantifi's depth of functionality, speed of analytics, asset coverage and ability to generate scenarios strengthens the funds risk management capabilities across all risk disciplines. With Quantifi as its strategic risk infrastructure, NZSF can optimise operational efficiency with a leaner, more robust system architecture."
Avadhut Naik, Head of Solutions, Quantifi

Quantifi's Latest Release Strengthens Front-to-Middle Performance, Transparency and Scalability

"Quantifi V15 is the result of close collaboration with our clients to address their analytics, trading and risk management needs. This latest release leverages Quantifi's modern technology architecture, cross-asset coverage and sophisticated pricing and analytics functionality to deliver an integrated, high-performance solution."
Avadhut Naik, Head of Solutions, Quantifi

OeKB Extends Usage of Quantifi for Enterprise Market Risk

"With Quantifi now live for market risk, OeKB has a consolidated view of credit and market risk within a single integrated solution. Quantifi is a strategic part of the I.T. infrastructure at OeKB. On a daily basis, the risk team is generating trade valuations for EMIR reporting, as well as calculating collateral balances for margin calls. The team also calculate accounting XVA for regulatory reporting and use Quantifi's VaR metrics for monthly reports to OeKB's regulator." *Stefan Strehle, Director, Treasury, OeKB*

Quantifi as Best-of-Breed Provider in RiskTech Quadrant® for Commodity Trading Risk Management

"Quantifi has a strong track record in the credit counterparty risk management space. We have been impressed with how it has extended this capability to cover the needs of the agri-trading sector. With Quantifi, all participants involved in the credit decision making and risk management process; from traders and risk management groups to risk committees can use the solution to make credit decisions while managing the associated risk."
Peyman Mestchian, Managing Partner, Chartis

CASE STUDY

OeKB Selects Quantifi to Replace Existing Front-to-Middle Solution

Oesterreichische Kontrollbank AG (OeKB) is a specialised institution owned by commercial banks located in Austria. OeKB's mandate is to support the Austrian economy, offering a uniquely broad variety of services to Austria´s industry and capital market participants.

Background

Regulatory changes have led to a number of implications for banks and financial intermediaries. There are strategic implications that can, however, bring business opportunities and competitive advantages to firms that are well prepared. These changes have impacted OeKB, despite various exemptions due to its public mandate. Having reviewed their existing risk infrastructure, OeKB decided that to support future business demands, at both desk and enterprise levels, they would need to replace their front-to-middle office platform with a more advanced and robust solution.

Counterparty & Market Risk Requirements

To respond to the evolving regulatory and market landscape a key priority for OeKB was to replace their existing external systems with a next-generation single solution for risk and analytics. To satisfy counterparty risk and IFRS 13 audit requirements OeKB also needed the ability to accurately calculate XVA using sophisticated Monte-Carlo based simulation across all relevant derivatives asset classes. Reporting and clearing requirements under the European Market Infrastructure Regulation (EMIR) also motivated change within the organisation. To enhance market

risk practices the bank wanted to calculate VaR over a one-month time horizon as it was previously calculated on a quarterly basis.

Senior management realised that maintaining a complex system to keep pace with shifting business requirements was too costly. With concern about total cost of ownership, scalability and business flexibility, the case for a modern and functionally rich single solution became compelling. After assessing a number of technology providers OeKB chose Quantifi as it was the only provider to demonstrate the ability to support their requirements.

> "With Quantifi now live for market risk, OeKB has a consolidated view of credit and market risk within a single integrated solution."
>
> *Stefan Strehle, Director, Treasury, OeKB*

Technology Selection Process

Following a comprehensive review of several solutions Quantifi was selected for a proof of concept phase. After a successful proof-of-concept Quantifi stood out as the solution best suited to allow OeKB to dynamically monitor, report and identify risk in real-time. Quantifi also demonstrated the ability to achieve tight consistency between front-office trading and risk control.

Given the success of Quantifi, OeKB decided to further extend their usage of Quantifi for enterprise market risk. The key variable in the measurement and management of OeKB's market risk is economic capital, which is calculated using Value at Risk (VaR) over a one-month time horizon. OeKB was previously calculating HVaR on a quarterly basis using a legacy system. Replacing this legacy system with Quantifi's single solution has helped the bank reduce cost and generate more accurate, timely results.

"Having conducted a demanding selection process we chose Quantifi, which we believe offers us a modern and functionally rich strategic platform to modernise and streamline our trading and risk management processes. This will in turn facilitate more timely and risk-aligned trading decisions and greater insight into our exposures." *Achim Keuchel, Vice President, Treasury, OeKB.*

Implementation on Time and Budget

A key success metric for the client was speed of implementation. Remote and on-site assistance by Quantifi's client services team ensured a successful and smooth transition, delivered on time and within budget.

> "Compared to other alternatives, Quantifi's approach to implementation and integration offered OeKB minimal project risk and a much faster time to market""
>
> *Achim Keuchel, Vice President, Treasury, OeKB.*

Benefits

With its single integrated front-to-middle solution Quantifi has revamped OeKB's trading and risk management infrastructure, across several lines of business, to provide new levels of accuracy, usability, flexibility and integration. This has translated into a lower total cost of ownership, major improvements in operational efficiency and fully supports current and future business activities.

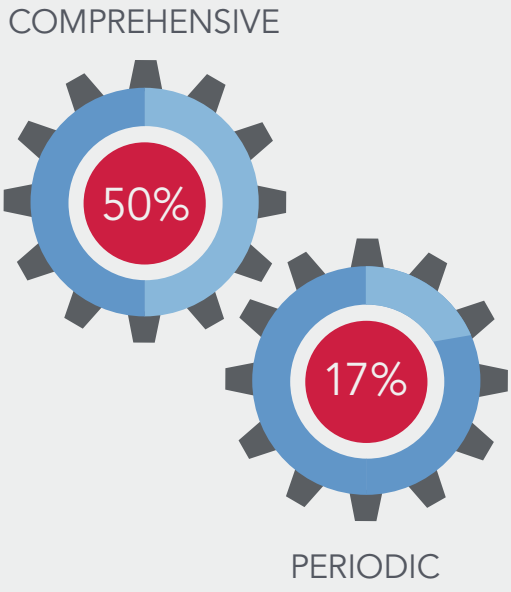
"Quantifi is a strategic part of the I.T. infrastructure at OeKB. On a daily basis, the risk team is generating trade valuations for EMIR reporting, as well as calculating collateral balances for margin calls. The team also calculate accounting XVA for regulatory reporting and use Quantifi's VaR metrics for monthly reports to OeKB's regulator." *Stefan Strehle, Director, Treasury, OeKB.*

QUANTIFI SURVEY

MANAGING LIQUIDITY RISK

Quantifi, OTC Partners and BlackRock hosted a webinar 'Identifying Liquidity Risk for Financial Stability.' The 108 delegates that took part in webinar were surveyed on the how they manage liquidity risk and the challenges faced.

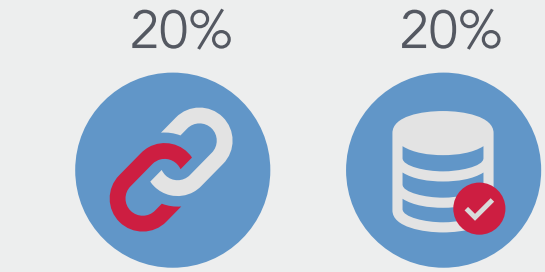
How does your firm manage liquidity risk operationally?



Liquidity characteristics can vary significantly over different periods and market conditions, and portfolio liquidity assessments need to be updated accordingly.

What are the most significant IT/operational challenges?

DATA IS THE BIGGEST CHALLENGE



To ensure a high degree of accuracy for liquidity risk management firms, need to have a comprehensive data infrastructure to manage and maintain data. Accurately monitoring liquidity risk positions has increased the emphasis on automation and timeliness of data integration.

Where do you incorporate current liquidity risk considerations?

Portfolio construction, asset allocation & implementation

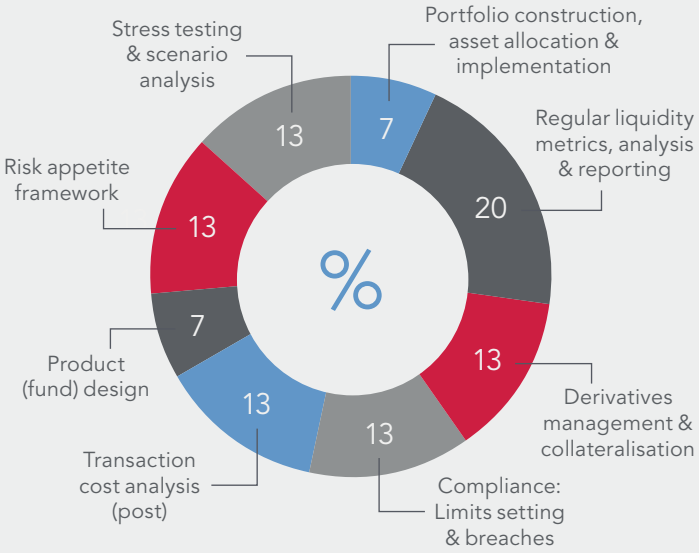
Compliance: Limits setting and breaches e.g. minimum daily limits

Risk management & regulatory liquidity metrics, analysis & reporting

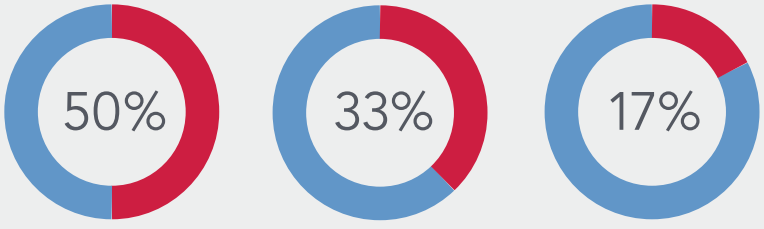
In the present/near term, the focus on compliance and limits suggest firms are employing policy controls and considerations without extensive liquidity quantification around portfolio construction and implementation activities. This is to ensure Portfolio Managers take into account liquidity implications from day-to-day asset/liability decisions taken.

What are your firm's future liquidity risk considerations?

In the mid/longer term, a stronger focus to incorporate liquidity factors into aspects such as risk appetite, stress testing and risk reporting suggests more concerted effort amongst some, perhaps more sophisticated, firms to quantify and characterise, at a more granular level, liquidity profiles associated with broader economic factors, investor characteristics and assets/liabilities.



How sufficient are your firm's liquidity management practices?



STRONG SATISFACTORY WEAK

Liquidity risk can never be fully mitigated. The best line of defence is a strong liquidity policy and management framework, which requires robust processes and sophisticated tools that can be smoothly implemented and tailored to the specific requirements of individual funds or strategies.

VECTORISATION

THE RISE OF PARALLELISM?

Written by Quantifi and Intel

New challenges in the financial markets driven by changes in market structure, regulations and accounting rules like Basel III, EMIR, Dodd Frank, MiFID II, Solvency II, IFRS 13, IRFS 9 and FRTB have increased demand for higher performance risk and analytics. Problems like XVA require orders of magnitude more calculations for accurate results. This demand for higher performance has put a focus on how to get the most out of the latest generation of hardware.

Vectorisation is a key tool for dramatically improving the performance of code running on modern CPUs. It is the process of converting an algorithm from operating on a single value at a time to operating on a set of values at one time. Modern CPUs provide direct support for vector operations where a single instruction is applied to multiple data (SIMD).

intel® Software Partner

The Rise of Parallelism

For the past decade, Moore's law has continued to prevail, but while chip makers have continued to pack more transistors into every square inch of silicon, the focus of innovation has moved away from greater clock speeds and towards multicore and manycore architectures.

A great deal of focus has been given to engineering applications that are capable of exploiting the growing number of CPU cores by running multi-threaded or grid-distributed calculations. This type of parallelism has become a routine part of designing performance critical software.

At the same time, as the multicore chip design has given rise to task parallelism in software design, chipmakers have also been increasing the power of a second type of parallelism: instruction level parallelism. Alongside the trend to increase core count, the width of SIMD (single instruction, multiple data) registers has been steadily increasing. The software changes required to exploit instruction level parallelism are known as 'vectorisation'.

The most recent processors have many cores/threads and the ability to implement single instructions on an increasingly large data set (SIMD width).

A key driver of these architectural changes was the power/performance dynamic of the alternative architectures.

- **Wider SIMD** – Linear increase in transistors & power
- **Multi core** – Quadratic increase in transistors & power
- **Higher clock frequency** – Cubic increase power

SIMD provides a way to increase performance using less power.

Software design must adapt to take advantage of these new processor technologies. Multi-threading and vectorisation are each powerful tools on their own, but only by combining them can performance be maximised. Modern software must leverage both Threading and Vectorisation to get the highest performance possible from the latest generation of processors.

Why Vectorise?

Vectorisation is the process of converting an algorithm from operating on a single value at a time to operating on a set of values (vector) at one time. Modern CPUs provide direct support for vector operations where a single instruction is applied to multiple data (SIMD). For example, a CPU with a 512 bit register could hold 16 32-bit single precision doubles and do a single calculation 16 times faster than executing a single instruction at a time. Combine this with threading and multi-core CPUs leads to orders of magnitude performance gains.

Implementing Vectorisation

There are a range of alternatives and tools for implementing vectorisation. They vary in terms of complexity, flexibility and future compatibility. The simplest way to implement vectorisation is to start with Intel's 6-step process. This process leverages Intel tools to provide a clear path to transforming existing code into modern, high-performance software leveraging multicore and manycore processors.

Applying Vectorisation to CVA Aggregation

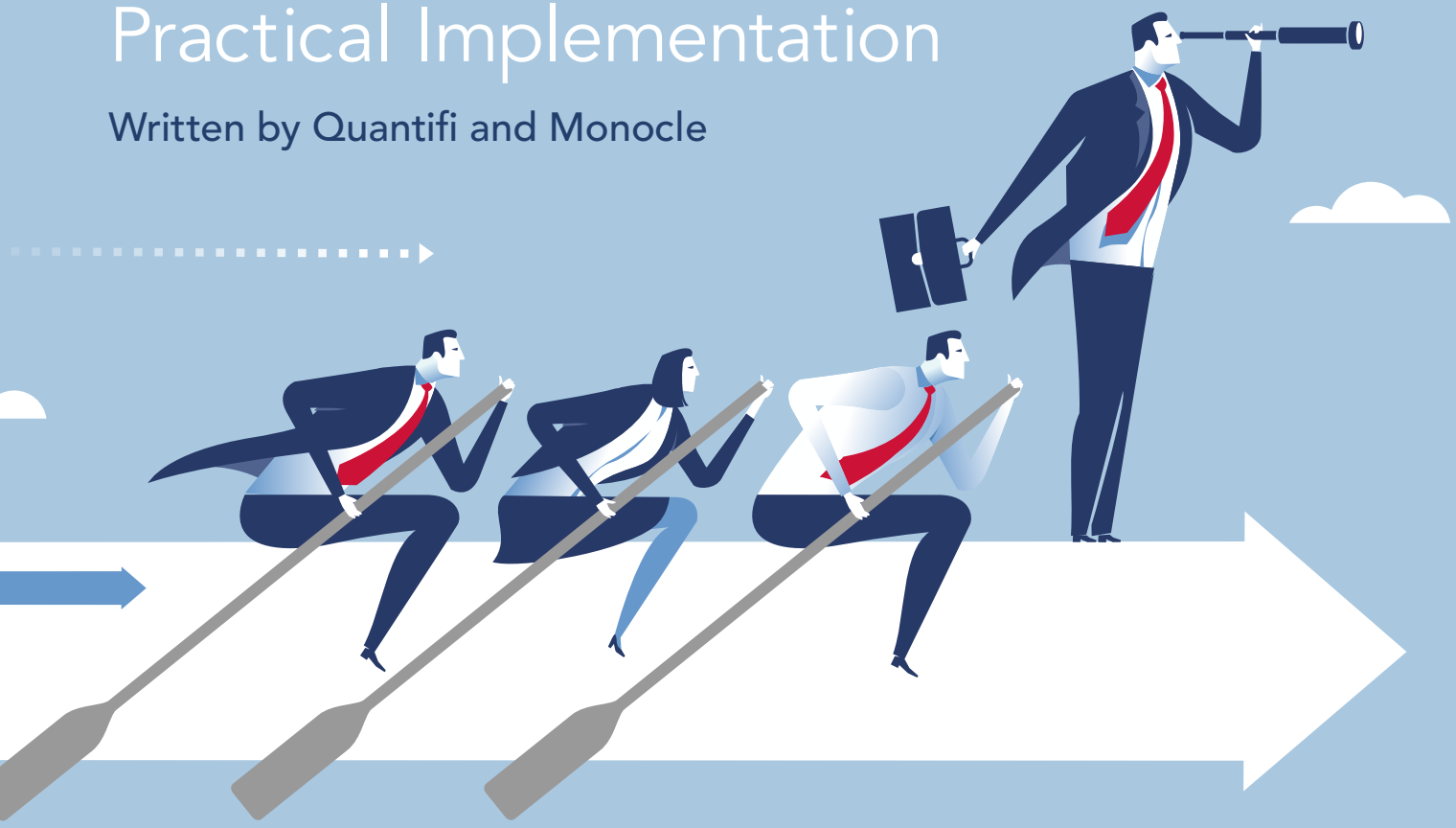
The Finance domain provides many good candidates for vectorisation. A particularly good example is the aggregation of Credit Value Adjustment (CVA) and other measures of counterparty risk. The most common general purpose approach to calculation of CVA is based on a Monte-Carlo simulation of the distribution of forward values for all derivative trades with a counterparty. The evolution of market prices over a series of forward dates is simulated, then the value of each derivative trade is calculated at that forward date using the simulated market prices. This gives us a 'path' of projected values over the lifetime of each trade. By running a large number of these randomized simulated 'paths', we can estimate the distribution of forward values, giving both the expected and extreme 'exposures.' The simulation step results in a 3-dimensional array of exposures. The task of calculating CVA from these exposures occurs in several steps: netting, collateralisation, integration over paths, integration over dates.

Vectorisation is the process of converting an algorithm from operating on a single value at a time to operating on a set of values (vector) at one time.

FRTB

Moving Towards a Practical Implementation

Written by Quantifi and Monocle



In January of 2016, the evolution of FRTB culminated in the Basel Committee on Banking Supervision (BCBS) publishing the finalised standards, titled *Minimum Capital Requirements for Market Risk*. The new standards replaced the existing regulatory framework for market risk and go beyond just dealing with quantitative measurement of risk. They also consider internal practices, processes, and other qualitative aspects of a bank's risk management landscape.

FRTB is set to revolutionise current market risk practices, placing emphasis on the coordination of operational, risk and data management processes as well as systems and technology.

The new Standardised Approach (SA) for market risk:

Compared to the previous standardised measurement method, the SA is closer aligned to the internal method. This is an attempt by the BCBS to reduce the large capital variances between internal and standardised models and alleviate the disparity in internal views of risk between banks. The SA will serve as both a floor and fall-back to the Internal Models Approach (IMA), with banks required to calculate and report on SA numbers even if they are capitalised based on IMA.

The revised Internal Models Approach (IMA) for market risk:

The IMA charge includes different components and can only be calculated by desks with internal model approval. The main component consists of charges for modellable risk factors, plus an additional charge for non-modellable risk. In addition to these charges, there is also a DRC calculated from internal parameters. Desks without internal model approval will calculate their charge based on the SA.

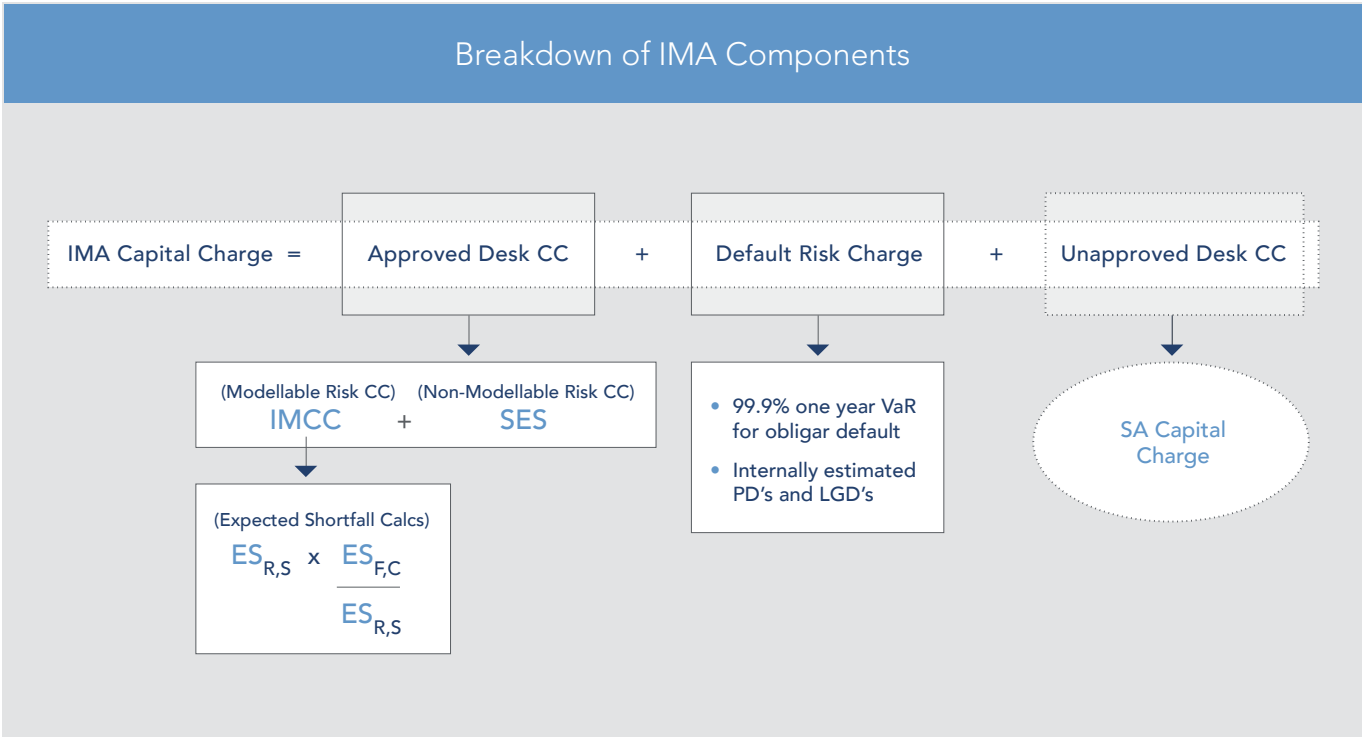
Data implications

Data management

One of the biggest challenges of the new standards is the collection and management of quality market risk data. Banks will need to source, process and store more data and trace data lineage through its various processes. Data used in risk models also needs to adhere to much stricter quality requirements, therefore, more effort will be expended on data analysis and cleaning. The growth in the amount of data required has been intensified by a stronger focus on 'what if' capital analysis and budgeting.

Data volumes

For IMA, one of the new qualitative criteria includes longer timespans of historical data used as inputs for modelling. Expected shortfall must be calibrated to the banks most stressful period over an observation horizon going back to 2007. Banks are also required to update their observations on a monthly basis, meaning there will be an ever growing mountain of data that needs to be stored, maintained and fed into modelling processes.



For SA, banks will need detailed position and instrument data to accurately identify risk factor sensitivities and allocate risk buckets. This needs to go hand-in-hand with new mapping and dimensional data, i.e. industry sector or market capitalisation, as gaps here can lead to unclassified positions which attract the highest risk weight and forgoes hedging benefit within buckets.

Data quality

The BCBS wants to encourage banks towards sourcing better quality data for use within their models. For a risk factor to be considered modellable, banks need to continuously obtain "real prices" across a sufficient set of representative transactions.

A lack of sufficient quality data to model risk factors or arrive at prescribed sensitivities would transfer more risk to the capital intensive NMRF (non-modellable risk factors) component (RRA or SES), therefore increasing the overall market risk charge. Even where risk factors can be modelled, using data of poor quality can lead to desks losing their IMA approval or result in a less than optimal capital requirement.

Operational and strategic considerations

To address the problem of banks building models using data of insufficient quality or quantity, the new eligibility criteria requires desks to demonstrate that data is real and derived from actual transactions. This means banks will need to attribute more risk to NMRF if they cannot show lineage by keeping track of data at desk and portfolio level. To achieve this banks will need visual audit trails, for both data and processes, plus rigid metadata management practices to maintain data dictionaries and ensure all data assets are catalogued.

FRTB also presents a business optimisation problem because banks will have to redefine their trading desk structure to produce the best capital and operational outcome. This may be in contrast to some banks incentives for structuring desks around trading mandate or optimising individual risks.

Technology considerations

The scope and complexity of FRTB requires a consistent and transparent front-to-back infrastructure for data, risk analysis, monitoring and reporting. FRTB will impose three main changes on a banks' technology infrastructure: (1) an increase in the number/variety of 'what-if' queries (2) focus on model validation techniques and (3) the impact of NMRF. In a recent survey* conducted by Quantifi, 52% of respondents described their existing risk infrastructure support for FRTB as 'not fit for purpose.'

For most banks, the technology changes needed to support FRTB are transformational as existing systems are not sufficient. The required calculations are complex and approving new models, introducing new data sources, integrating front office platforms, changes in desk structure etc. will place additional strain on budgets and resources.

A number of banks are facing up to the overarching question of whether to buy or build. This debate is now more important than ever as we enter a new era for the banking industry, where IT investments are large, the required systems complex and the margin for error small.

Key considerations should include:

- Business, technical and functional gaps and requirements
- How existing internal systems (build) and 3rd party solutions (buy) compare to fulfil gaps and requirements in terms of implementation timeframe, benefits and ROI
- Operational implications i.e. system and process redesign, IT configuration, data management
- How the options compare with regards to performance and flexibility to support the increase in computational power for complex calculations and the granularity of the new reporting requirements

* 106 bank practitioners that took part in Quantifi's webinar 'FRTB: Are Banks Prepared?' were surveyed

> FRTB also presents a business optimisation problem because banks will have to redefine their trading desk structure to produce the best capital and operational outcome.

Computational challenges for SA

At present, some banks, particularly Tier 1, are not using the standardized model for FRTB as it is more punitive than IMA. However, the new regulation makes calculating SA capital charge mandatory. Traditionally market risk valuation models could be different from front office models, however, the new sensitivities-based SA requires sensitivities to be produced by the same models used for front office pricing. Banks, therefore, require a unified market risk system, which can either aggregate sensitivities produced by front office systems or have the same calibration and models as front office, but where new FRTB scenarios and calculations are implemented. In addition to the challenge of specifying all the shocks, aggregating sensitivities, collecting data, etc., another huge challenge in evaluating SA is performance.

Computational challenges for IMA

IMA allows banks to evaluate market risk capital charge using proprietary models. Moreover, an alternative SA was designed to be more punitive than IMA to encourage banks to utilise internal models. At the same time, IMA calculations are complex and involve additional eligibility tests. Furthermore, IMA eligible desks must also calculate SA, as a floor or a fall-back process. Therefore, the decision on whether to pursue SA or IMA should be decided on desk by desk level following a thorough profitability analysis. Note that some trading desks like securitisations can only be SA.

Backtesting and P&L attribution

The eligibility test is a key challenge for banks using IMA as they need to demonstrate effective backtesting performance and P&L attribution to meet the requirements for internal modelling.

Backtesting has to be performed on a desk level and compare 1 day VaR risk measure at two confidence levels 99% and 97.5%. If the desk has more than 12 exceptions at the 99% level or 30 at 97.5% level, it cannot use IMA and should be capitalized using SA. Stricter back-testing introduces significant computational challenges given IMA banks now have to calculate 97.5% ES for various liquidity-based horizons and 97.5 % and 99% Var for 1 day horizon.

Non-modellable risk factors

Expected shortfall calculations are only applied to modellable risk factors, while NMRFs are capitalized using stressed ES (SES), which is usually more punitive. This creates an incentive for banks to reduce the number of NMRFs. Another incentive is that to pass P&L attribution tests, bank's risk model should be aligned to the front office model, including all risk factors. One other incentive of reducing the number of NMRFs is that regulators include both modellable and non-modellable risk factors into backtesting. If backtesting fails, but the bank can demonstrate the exception was caused by the NMRF, regulators will disregard an exception. This is only on condition that the desk allocated reasonable capital against this NMRF to cover the whole exception amount, even if only a minor breach was caused by NMRF.

The impact and requirements of FRTB across risk, front office, finance and IT are broad and deep. Banks are at varying levels of preparedness to deal with the impact of FRTB. To best respond to these new demands, banks need to make the right strategic and technology decisions and assess the impact on operations and processes across risk, front office, finance and IT.

QUANTIFI VERSION 15

Latest Release Strengthens Front-to-Middle Performance, Transparency and Scalability

Quantifi Version 15 (V15) leverages the latest technology and introduces a broad range of enhancements and support for the latest regulatory requirements, including expanded product coverage, advanced data management and next generation analytics. With over 100 new features, this release is designed to further enhance front-to-middle performance, transparency and scalability.

"Firms require dynamic, multi-faceted trading and investment strategies to navigate complex and interdependent regulations. To innovate and create advantages, firms need responsive analytical technologies." *David Easthope, SVP Securities & Investment, Celent.*

Significant regulatory initiatives, including FRTB, Basel III, MiFID and IFRS, have been developed to provide greater stability to the financial markets via increased capital requirements and new leverage and liquidity rules. These reforms have a major bearing on the industry's capital, costs, operations and competitive dynamics. V15 incorporates a broad range of new functionality to support these latest reforms to help our clients optimise capital, costs and resources. Key enhancements include:

New Product Coverage

- Expanded product coverage for FI asset class, including ABS (CLO, CMBS and RMBS)
- Enhanced interface with INTEX security master and cashflow engine for ABS securities

Risk & Reporting

- Additional support for regulatory risk, including FRTB, SA-CCR (BCBS 279) and SIMM
- Enhanced stress testing and scenario analysis capabilities
- New framework for investor and regulatory reporting distressed securities

Analytics

- Support for multiple XVA models
- New diagnostic tools to provide greater transparency and minimize model risk
- Expanded support for modelling of Risk and Reporting

Architecture, Performance & Connectivity

- Microservices-based architecture
- Significant improvements to Risk and Reporting engine for enhanced performance and transparency
- Expanded of out-of-the-box interfaces to external data providers

"To be successful in today's regulatory environment, firms need flexibility to pursue multiple trading strategies while effectively managing risk and capital requirements. Quantifi V15 is the result of close collaboration with our clients to address their analytics, trading and risk management needs. This latest release leverages Quantifi's modern technology architecture, cross-asset coverage and sophisticated pricing and analytics functionality to deliver an integrated, high-performance solution." *Avadhut Naik, Head of Solutions, Quantifi.*

NZ Super Fund Selects Quantifi for Front Office and Enterprise Risk Management

About NZSF

The New Zealand Superannuation Fund (NZSF) invests money, on behalf of the New Zealand Government, to help pay for the increased cost of universal superannuation entitlements in the future. By doing this the Fund adds to Crown wealth, improves the ability of future Governments to pay for National Superannuation and, ultimately, reduces the tax burden on future New Zealanders of the cost of superannuation. A long-term, growth-oriented investor, the Fund has around NZ$35 billion in assets, including $5 billion invested in New Zealand.

To support its complex cross-asset portfolios and diverse investment strategies, NZSF wanted to optimise its front-office and risk management practices.

Business requirements

The purpose of the NZSF is to address the future pension/superannuation liabilities of an increasingly aging New Zealand population. The long-term, global investment fund is expected to continue to grow until it peaks in size in the 2070s. To support its complex cross-asset portfolios and diverse investment strategies, NZSF wanted to optimise its front-office and risk management practices. NZSF's goal was to achieve a unified view across multiple asset classes in order to increase diversification and transparency into investment performance and risk characteristics. Following a rigorous selection process involving several risk technology providers, NZSF chose Quantifi to support its portfolios consisting of financial and non-financial instruments including timber, forest, land etc.

NZSUPERFUND
Te Kaitiaki Tahua Penihana Kaumātua o Aotearoa

Why Quantifi?

NZSF required an advanced front-office and risk management solution which utilises new technology for ease of integration and a low cost to market. Quantifi's open, extensible architecture, corporate flexibility and proven implementation capabilities made it an ideal fit for its business. Quantifi's depth of functionality, speed of analytics, asset coverage and ability to generate scenarios strengthens the funds risk management capabilities across all risk disciplines. With Quantifi as its strategic risk infrastructure, NZSF can optimise operational efficiency with a leaner, more robust system architecture.

Outcome

Quantifi provides NZSF with a consolidated view of credit, liquidity and fund risk. Forward looking scenario analysis, with application of fund responses, allows the fund to assess impacts on key liquidity and credit risk measures based on future series of market shocks. NZSF can also factor in intelligent fund responses as part of that analysis to take advantage of favourable market movements. Fully customisable user permissions and audit trails helps reduce operational risk.

"The growing complexity of the wealth management industry has driven firms to adopt next-generation risk management systems, like Quantifi, that can seamlessly integrate with existing systems and processes."
Roland Jordan, Head of EMEA & Asia Pacific Sales, Quantifi

Quantifi Awarded Best Multi-Asset Trading & Portfolio Management System

Quantifi has been named Best Multi-Asset Trading & Portfolio Management System in Corporate Vision's Technology Innovator Awards. Winners were chosen through a combination of votes gathered from their network of respected industry partners, together with their in-depth and rigorous in-house research process.

Quantifi is the first of a new generation of Portfolio Management Systems that address these challenges in a single, holistic platform that breaks down barriers between front, middle and back office functions. Its single integrated solution delivers cross-asset trading, front-to-back operations, position management, market, credit, counterparty and liquidity risk management, margining and regulatory reporting. As well as supporting the key regulatory and industry practices such as EMIR, AIFMD, MiFID II and CRD4, Quantifi applies the latest technology innovations to provide new levels of usability, flexibility and ease of integration. This translates into dramatically lower time to market, lower total cost of ownership and significant improvements in operational efficiency.

"We are delighted to win this award for Best Multi-Asset Trading & Portfolio Management System. To navigate market challenges and satisfy investor demands, investment management firms need to ensure their risk analytics technology is fit for purpose. Quantifi is trusted by start-ups and some of the largest and most sophisticated investment managers globally. The underlying factors driving Quantifi's success in the investment management space are new technology, advanced functionality and responsive client services." Pradiv Mahesh, Director, Americas Sales, Quantifi

Webinar: Identifying Liquidity Risk for Financial Stability

Topics:

- What is driving liquidity risk?
- Strategic and tactical challenges for buy-side firms managing liquidity risk
- Innovations in technology for liquidity risk management

https://www.quantifisolutions.com/identifying-liquidity-risk-for-financial-stability-video

Whitepapers

- FRTB: Strengthening Market Risk Practices?
- Microservices: The New Building Blocks of Financial Technology
- Indentifying Liquidity Risk for Financial Stability
- Cost of Trading and Clearing in the Wake of Margining
- A First View of the New CVA Risk Capital Charge
- IFRS 13: CVA, DVA, FVA and the Implications for Hedge Accounting
- Buy-Side Risk Analytics – RiskTech Quadrant®

https://www.quantifisolutions.com/whitepapers

About Quantifi

Quantifi is a provider of risk, analytics and trading solutions. Our award-winning suite of integrated pre and post-trade solutions allows market participants to better value, trade and risk manage their exposures and responds more effectively to changing market conditions.

Quantifi is trusted by the world's most sophisticated financial institutions including five of the six largest global banks, two of the three largest asset managers, leading hedge funds, insurance companies, pension funds and other financial institutions across 40 countries.

Renowned for our client focus, depth of experience, and commitment to innovation, Quantifi is consistently first-to-market with intuitive, award-winning solutions.

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