

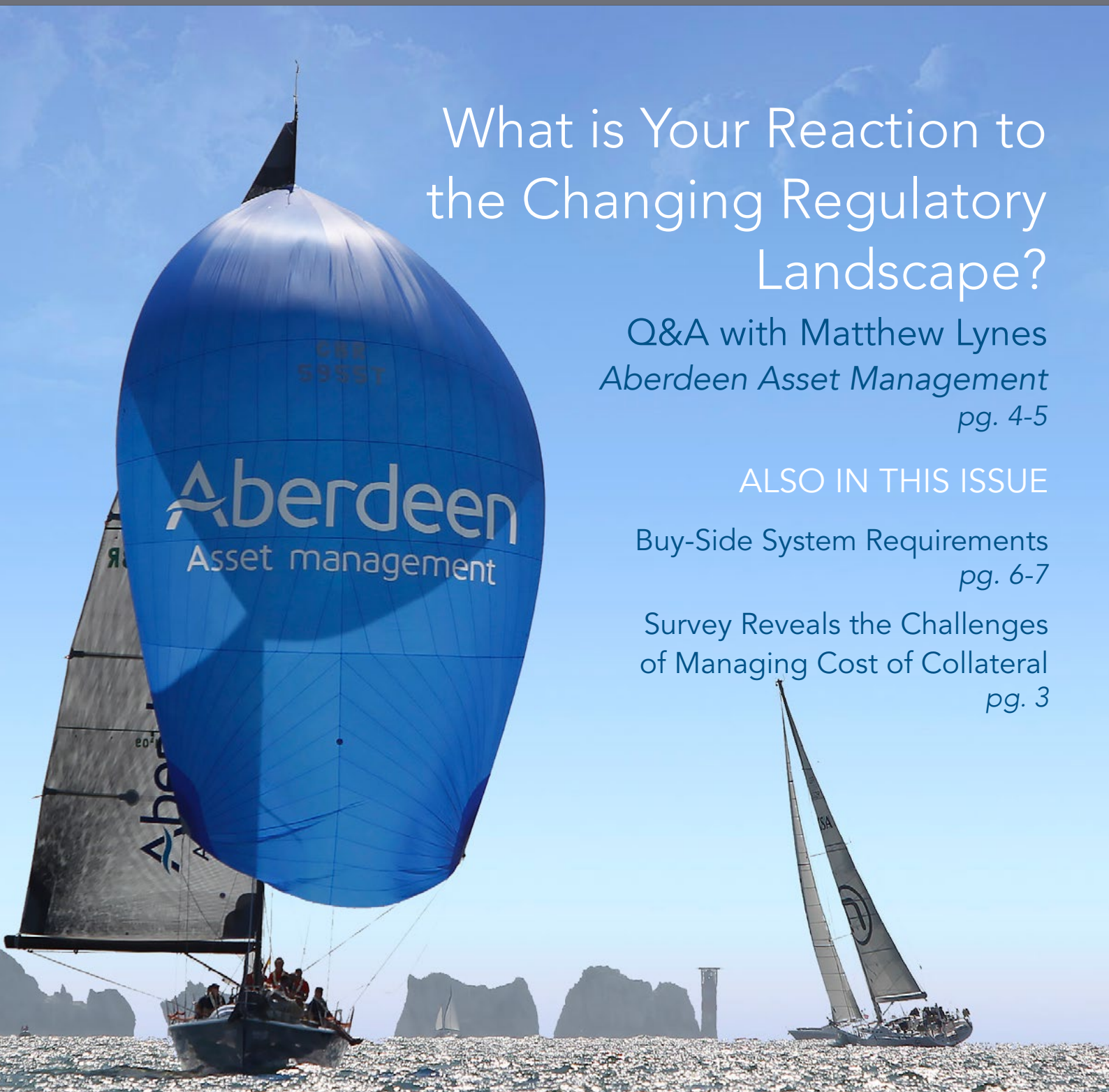
What is Your Reaction to the Changing Regulatory Landscape?

Q&A with Matthew Lynes
Aberdeen Asset Management
pg. 4-5

ALSO IN THIS ISSUE

Buy-Side System Requirements
pg. 6-7

Survey Reveals the Challenges
of Managing Cost of Collateral
pg. 3



MESSAGE FROM THE CEO



The cost of clearing OTC derivatives has recently received increased focus with examples in the US of significant costs being on-charged to clients. We have seen significant differences between the costs of clearing at different clearinghouses. Accurately estimating the cost of clearing using models is a new science, which we discussed in our recent webinar recapped on pg.3.

New and evolving regulations continue to drive changes in the markets. In this issue, we held a Q&A with Matthew Lynes from Aberdeen Asset Management. Matthew talked about the key challenges that he sees facing the buy-side and gave his insight on the futures challenges around the FX market.

Buy-side participants face many challenges. Regulation, market changes, cost pressures, investor demands and technology contribute to dramatic increase in the sophistication and complexity of the systems required to support the buy-side. This issue's feature story focuses on our recent whitepaper published jointly with Sol Steinberg from OTC Partners. This whitepaper highlights the most important requirements for buy-side systems relevant for all buy-side firms.

This month we release Quantifi Version 13 (V13), a major upgrade of all our solutions. V13 includes several enhancements across technology, data management, trading, risk management and reporting. These latest developments are designed to enhance performance, reduce operational risk and help clients better adapt to market changes.

The first half of 2015 has been a busy period, with major successes in both existing and new markets across both the buy and sell sides. With strong revenue growth and the increased demand across our entire product suite, we continue to innovate, develop and invest for the long term. We remain committed to our strategy of investment in technology and our people. At Quantifi, individual growth is as much a priority as corporate growth and we firmly believe in investing in our people. By attracting and retaining talented individuals, Quantifi exceeds its commitment to new and existing clients.

ROHAN DOUGLAS, Founder and CEO

NEWS

CQS, Selects Quantifi's Best-of-Breed Analytics to Replace Internal Systems

"We are delighted that as a result of an extensive selection process CQS has placed their trust in us, and we look forward to partnering with one of the most prominent global hedge funds."

Roland Jordan, Head of EMEA Sales, Quantifi

Quantifi Releases Version 13

"Leveraging the latest technology, Quantifi Version 13 release introduces a range of new enhancements including expanded product coverage, improved and extended front office trading and connectivity, superior data management and second generation margin analytics."

Avadhut Naik, Head of Solutions, Quantifi

Frontclear Selects Quantifi for Integrated Trading and Risk

"Quantifi is trusted by leading financial institutions and this proven expertise makes it the ideal solution to strengthen and support our trading and risk management capacity and frameworks. This initiative with Quantifi enables Frontclear to control and alleviate challenges on risk, capital allocation, liquidity and funding."

Erik van Dijk, Chief Risk Officer, Frontclear

Quantifi, RiskTech Quadrant® Category Leader for Sell-Side Risk Technology

"Quantifi has impressed us with their sell-side risk management solutions by addressing enterprise risk, analytics and front office risk as well as providing an integrated solution for front-to-back office trading, risk valuation and regulatory reporting."

Peyman Mestchian, Managing Partner, Chartis

EVENTS

Quantifi Breakfast Seminar
London, 9th September 2015

London Annual Risk Conference 2015
London, 29th September 2015

New York Annual Risk Conference 2015
New York, 29th October 2015

The Cost of Collateral

QUANTIFI SURVEY

Quantifi conducted a survey as part of its recent webinar 'Cost of Collateral for Clearing'. Over 120 individuals from across the industry took part in the webinar, which was presented by Dr. Dmitry Pugachevsky, Director of Research at Quantifi. Delegates were surveyed on the challenges associated with clearing and how they plan to address them.

The introduction of Dodd-Frank, MiFID II, EMIR and Basel III is significantly increasing the cost of capital and forcing firms to re-evaluate the economics of their OTC trading businesses. Market best practice, implemented by the most sophisticated firms, now accurately measures all the components of a trade to analyze its profitability including Credit Valuation Adjustment (CVA), Cost of Regulatory Capital (CRC) and Funding Valuation Adjustment (FVA).

“The scope of regulatory reform is far reaching and is increasing the cost of capital”

During the webinar Dr. Pugachevsky explained how regulations are impacting the costs associated with cleared and uncleared trades, the factors involved in optimising collateral including calculating margin variation adjustments (MVA) and OTC trade profitability (incorporating MTM, CVA hedges and all valuation adjustments); as well as a cost analysis of cleared vs uncleared IR swaps.

"The scope of regulatory reform is far reaching and is increasing the cost of capital and driving the need to

more accurately measure the risks and profitability of OTC derivatives. These regulations have significantly increased collateral requirements for cleared trade. Therefore, quantifying the funding cost over the life of trade is important as future unfunded initial and variation margins can lead to a liquidity crunch. Optimising collateral over clearing/non-clearing decision or CCP selection requires a unified decision tool," comments Dr. Pugachevsky.

SURVEY RESULTS INDICATE

- The main challenges faced by market participants are measuring the actual/optimal cost of collateral, and measuring the expected cost of collateral over the life of a trade
- The implication of these challenges is not just economic but operational, with **49%** of respondents stating that their priority over the next 12-18 months is implementing a new, or upgrading, an existing risk system.
- **78%** of respondents are considering either an external or a hybrid (buy & build) approach to collateral management technology. A key driver for this is the difficulty in gaining access to/limited internal resource to support internal build

CONVERSATION MATTHEW LYNES

Senior Investment Manager
Aberdeen Asset Management



What is your reaction to the changing regulatory landscape? How will it impact the buy-side?

The regulatory landscape still proves to be one of the biggest challenges to the buy-side industry and will do so for the next 12-18 months. The Regulatory Technical Standards (RTS) is expected to be published in the next couple of months which will add some certainty for the first time on the timelines going forward. Once clients and firms decide which of their portfolios fall into which category, the real challenge will be to engineer a solution for collateral management more advanced than what has typically been employed in the bilateral world. The collateral management sector is in a constant state of change and the ability to find an optimal solution, whether it's through the bilateral repo market, agency stock lending or a combination of both will occupy the minds of many asset managers over the next year. System requirements are also significant. The ability of managers to consider the impact of clearing swaps in terms of initial margin based on existing positions and also to determine what collateral is available and its value, is not something that many vendors currently offer solutions for.

Over the course of the past 12 months what do you consider to be the most significant development in the OTC markets?

One of the most significant developments over the last 12 months has been the change in the way OTC derivatives are discounted. The 'Sonia Flat' approach that has prevailed since the financial crisis is being replaced unofficially by 'Sonia plus a spread', this spread being a factor of increased squeezes in the repo market and further tightening of bank balance sheets. This has led to concerns whereby the valuation of swaps on books and the realisable value is diverging. Re-coupling of swap positions has also become more of a challenge to the buy-side following the further balance sheet restrictions that brokers now face with the transaction costs for such trades encompassing many more variables.

Looking ahead, what market developments do you anticipate and how do you ensure you are adequately prepared to address those developments?

EMIR clearing will impact the market considerably going forward and the market between cleared and non-cleared swaps will continue to bifurcate. The ability to clear swaps both operationally and efficiently from a collateral management perspective is crucial for firms to prepare themselves for the landscape ahead. The communication of the estimated costs of clearing to clients continues to prove difficult given the protracted timelines involved.



"EMIR Clearing will impact the market considerably going forward and the market between cleared and non-cleared swaps will continue to bifurcate."

What is the single biggest risk-based issue that will affect asset management firms in 2015?

One of the biggest risks in 2015 that firms face is not progressing themselves far enough internally in terms of adapting to the cleared world. The changes required are significant and are not to be underestimated particularly if a firm employs third party administrators for their back office operations. Furthermore, this is also a large operational undertaking required by clearing brokers to on-board clients. Those that leave this late may potentially find themselves waiting in line and coming very close to deadlines. Although the timelines at this point may appear to be far into the distance, it is likely that there will be benefits in clearing before this becomes mandatory.

The continual regulation that the sell-side faces in terms of their balance sheets suggests the ability for them to competitively price bilateral trades will erode over time and that is something that market participants are already beginning to see. Although still in the consultation stage, margin on uncleared trades is expected to be introduced at some stage down the line. How this will actually work at a practical level raises many questions but when this does come into force, margin requirements are expected to be punitive relative to cleared trades.

What implication does the requirement of Forward FX clearing have on the industry?

The proposed timeline for FX forwards is beyond that of OTC swaps. The way this market operates is different to that of OTC swaps which in turn is making the design of a cleared FX market more challenging for the regulators. In terms of the concerns voiced about the industry post 2008, it seems to have been disproportionately quiet for FX trades. In many buy-side firms, FX does not fall under an ISDA framework and is not collateralised. The exposure that exists between themselves and sell-side firms is significant and in some cases dwarfs OTC swap exposure. This was highlighted in the bankruptcy of Lehman where a large proportion of the contracts that had to be settled by the administrators involved forward FX. Centrally clearing FX represents a further area of considerable change to buy-side firms to contend with in the years ahead. One of the issues here is FX applies to equity portfolios considerably more than OTC swaps. These portfolios hold minimal amounts of cash and really do not have anything in the way of collateral that can be posted against these positions which is further consideration for the regulators.

Aberdeen
Asset management

Buy-Side System Requirements

By Avadhut Naik, Head of Solutions, Quantifi and Sol Steinberg, Founding Principal, OTC Partners



The financial markets have undergone dramatic change. While some of this is down to natural evolution, much of the change can be directly attributed to new rules introduced in the wake of the 2007 crisis. The combination of the Dodd-Frank Act, EMIR, MiFID II and Basel III signify the biggest regulatory change in decades. These reforms have triggered major change in how financial products are traded, settled, collateralized and reported, resulting in deep ongoing structural changes to the markets.

Buy-side firms should look to re-architect their processes and technology infrastructure, with a goal to strengthen risk control and oversight, enhance transparency and improve efficiency of front-to-back office control functions.

Sell-Side Exits Bring New Buy-Side Business Opportunities

While market reforms, including Volcker Rule and Basel III, have impacted all players, sell-side (liquidity creators) institutions have borne the regulatory brunt more than buy-side (consumers) institutions. The worldwide reach of the sell-side, its size and interconnectedness to other institutions make its survival critical to the survival of the entire system, hence regulations are designed to protect the markets from the systemic risk stemming from these institutions.

Quest for Higher Yield

The quest for higher yield in a low interest environment is one reason for investment managers to seek out alternative investments that promise higher returns. For example, there is renewed interest in structured credit products as the low risk tranches of these products offer a higher risk weighted return in the current environment. These investments involve a higher degree of risk, which needs to be actively monitored and managed. This has resulted in demand on the buy-side for best-of-breed

analytics and next-generation technology frameworks to support complex products, capabilities they have traditionally lacked.

Technology Transforms Margin Challenges into Opportunities

To be consistently profitable, firms need to select execution platforms based on independent comparison of cost of funding margins, over the life of trades. Regulation-imposed changes in market practices call for sophisticated analytics and superior operational capabilities. Sophisticated models ensure profitability by factoring in all costs of executing trades including value adjustments for counterparty risk, costs of funding margins (initial and variation) as well as costs of capital. Better operational capabilities ensure consistent analysis across the organization (front-to-back) in a timely fashion.

“The credit crisis and the regulatory response it spawned have fundamentally reshaped financial markets. While the changes have brought about challenges, they have also ushered in opportunities.”

In the past, managing margin requirements was a reactive task, performed at the end of the trading cycle, typically within manual administrative and back office operations. Today, the buy-side is turning to new technology that can provide a complete, front-to-back view of their global collateral assets, to allow them to assess multiple sourcing and funding options in real time.

Technology Trends

The leading investment managers are examining integrated front-to-back systems that can provide a complete solution for all of their analytics, trading and risk requirements, both for today and in the future. The

trend is to optimize and streamline the entire workflow, to ensure greater trade transparency and enterprise-wide reporting:

- Single technology solution, for analytics, trade capture and enterprise risk control, with coupling between front, middle and back office functions
- Straight-through-Processing from trade execution all the way through to central clearing
- Independent margin calculation and swaps portfolio pricing tools
- Reconciliation tools that account for margin call discrepancies, either at the CCP or clearing intermediary level or both
- Transaction Cost Analysis (TCA) tools that can incorporate data from the trading process as well as integrating back office data into the trading process

Systems Rethink

There have been considerable improvements in technology available to deploy and integrate software, boost usability and speed of processing, and improve flexibility. This is because of an increase in computation power, simplicity of data management, the advent of cloud computing, and more powerful APIs for easier integration. Any systems rethink needs to be done with a view to benefit from these improvements. Buy-side system considerations:

Cross-asset, multi-strategy support: Opportunities created by banks exiting markets, for asset classes deemed risky by the regulators, and quest for higher returns in a low interest environment are forcing buy-side firms to consider a broad range of strategies and asset classes. Sophisticated firms need to have the flexible systems geared to support multiple strategies spanning multiple asset classes.

Integrated analytics, trading and risk platform: In the developing environment, lower yields coupled with higher transaction costs are squeezing returns. Pre-trade analysis has to consider the cost of funding collateral required to post margins and the cost of funding regulatory capital when evaluating the profitability of a strategy. This calls for a very high level of integration between front-to-middle office systems across all asset classes.

Robust risk management and control: The ensuing regulation requires more stringent market risk management with greater focus on stress-testing of extreme scenarios. Equal emphasis has also been placed on other risks like counterparty credit, liquidity and operational risks. Any systems being considered

should have capabilities to measure, monitor and manage these risks at an enterprise level across multi-asset portfolios.

Operational efficiency: In an environment where opportunities are limited and transaction costs high, operational efficiency becomes key. Systems that facilitate optimum action in a timely manner by integration, flexible workflows, and ease of communication will be key to competitive advantage.

“Leading investment managers are examining integrated front-to-back systems that can provide a complete solution for all of their analytics, trading and risk requirements.”

Business intelligence and transparent reporting infrastructure: Reporting engines need to aggregate data across all asset classes and present an integrated view of risk and P&L. Reporting capabilities need to be flexible to serve the needs of portfolio, risk managers, investors and regulators. Ideally the system should also allow for seamless integration with a third party business intelligence or data visualization tools available.

State-of-the-art technology: Distributed NoSQL databases provide a scalable and cost-effective alternative to expensive relational databases for data intensive workloads. Cloud platforms such as Amazon AWS and Microsoft Azure offer many advantages (e.g. flexible provisioning, competitive pricing, built-in redundancy) for solutions that support cloud deployment. Modern multi-core, vector-enabled CPU's are much more powerful than the previous generation, however pricing and risk libraries must be designed to take advantage of these new features.

Low total cost of ownership (TCO): Sufficient consideration needs to be given to the total cost of ownership. A cost analysis has to take into consideration licensing costs, implementation costs, operating and support costs, as well as disaster recovery costs.

Conclusion

The credit crisis and the regulatory response it spawned have fundamentally reshaped financial markets. While the changes have brought about challenges, they have also ushered in opportunities. The key to success will be the speed with which firms are able to adapt their business models to align with changes in the marketplace. Changing business models need to be supported by corresponding changes to business processes and systems.

Category Leader - Sell-Side Risk

Chartis recognises Quantifi as category leader for sell-side technology, referencing Quantifi's strengths in analytics and technology. As well as supporting key regulatory and industry practices such as Dodd-Frank, EMIR, MiFID II, Basel III, BCBS 239, IOSCO and other OTC regulations, Quantifi applies the latest technology innovations allowing clients advantages in performance, scalability, usability and ease of support. High-performance, agile processing and ease of implementation and integration translate into faster time to market, lower cost of ownership and contribute to overall operational efficiency.

"Due to regulatory pressure, market changes and advances in technology, the demand for high performance systems that are able to meet sell-side requirements has risen. Quantifi has impressed us with their sell-side risk management solutions by addressing enterprise risk, analytics and front office risk as well as providing an integrated solution for front-to-back office trading, risk valuation and regulatory reporting."

Peyman Mestchian, Managing Partner at Chartis



Quantifi Webinar

The Cost of Collateral for Clearing

New financial regulations including Dodd-Frank, Basel III, MiFID II and EMIR are increasing the cost of capital and driving the need to more accurately measure the risks and profitability of OTC Derivatives. These recent regulations significantly increased collateral requirements for cleared trades. This webinar explores the different capital costs arising from clearing and how they compare with costs for OTC trades. The recording and supporting slides are available on our website.

ABOUT QUANTIFI

Quantifi is a specialist provider of analytics, trading, and risk management solutions. Our suite of integrated pre and post-trade solutions allow market participants to better value, trade, and risk manage their exposures and respond more effectively to changing market conditions.

Founded in 2002, 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 16 countries.

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

enquire@quantifisolutions.com | www.quantifisolutions.com

Europe: +44 (0) 20 7248 3593 • North America: +1 (212) 784 6815 • Asia Pacific: +61 (02) 9221 0133

Follow us on: [LinkedIn](#) [Twitter](#) [g+](#)

Citizenship

Our commitment extends beyond our products and services. We are also passionate about social issues in our local neighbourhoods and global community.



Whitepapers

- IFRS 13: CVA DVA FVA and the Implications for Hedge Accounting
- Sell-Side Risk Analytics - RiskTech Quadrant®
- Comparing Alternate Methods for Calculating CVA Capital Charges under Basel III
- OIS & CSA Discounting
- Buy-Side Risk Analytics - RiskTech Quadrant®

Request a copy:

enquire@quantifisolutions.com