

IN
SIGHT

Quantifi 

NEWSLETTER

September 2015

The New Edge in Investment Performance:

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MESSAGE FROM THE CEO



Since the start of the credit crisis, there has been a lot of focus on the issue of corporate ethics in the banking industry. Recent news about the manipulation of diesel emissions highlights that this is a much broader issue. The subject generates a lot of public opinion and regulatory focus but seems to be difficult to manage objectively.

A friend recently recommended the work of a behavioural economist, Dan Ariely (danariely.com). This is one example of a body of research which provides an understanding of the causes. I thoroughly recommend the short video 'The Truth About Dishonesty' as an introduction to the subject.

Corporate ethics is an important part of a company working within and for the benefit of a community. Charitable contributions is another. Quantifi is committed to contribute 3% of profits to charitable causes. I am proud to say that this year we have participated in over a dozen charitable events and will also be participating in the New York Marathon.

In this issue we have a number of great articles that are very relevant to the industry. In this issue we present a summary of our recent buy-side breakfast seminar in London where Erik Vynckier of AllianceBernstein discusses the impact of liquidity risk as well as common approaches, pitfalls and best practices for liquidity management.

This issue also includes an article from Jon Gregory, a well-known industry expert, on the emergence KVA, the latest in a long line of valuation adjustment. The article explores how regulation has increased counterparty risk related capital requirements and the importance of KVA.

Over the past few months ago there has been considerable new client activity, both on the buy and sell side. Helaba, one of the leading German banks selected Quantifi's single xVA solution to enhance its counterparty risk management infrastructure for their OTC business. On the buy-side, COS, a global multi-strategy asset management firms selected Quantifi to replace their internal systems to enhance their modelling and risk management practices. These recent client wins are a testament to the strength of our technology and expertise of our client services group.

Continuing our tradition of thought leadership, this month we host our 3rd annual London risk conference followed by our 2nd annual New York risk conference on 29th October. Senior practitioners from across the industry will share their views on topics important to the OTC markets.

ROHAN DOUGLAS, Founder and CEO

NEWS

Leading German Bank, Selects Quantifi's Single xVA Solution for Enterprise

"The complexity in all aspects of counterparty risk management has driven Helaba to replace its in-house xVA risk solution with a technology partner that is both capable and committed to addressing the needs of this market. To mitigate risk, enhance transparency and increase capital efficiency we need a more dynamic system that can provide consistent analytics and a single view of xVA risk across our entire portfolio of vanilla and exotic instruments. During the due diligence process Quantifi's single solution for counterparty risk proved to be more sophisticated, flexible and scalable compared to the other solutions we considered. Our decision to strategically partner with Quantifi gives us the confidence to be able to address the challenges associated with counterparty risk and a new edge in the marketplace."

Matthias Rapp, Head of Trading, Helaba.

Quantifi 'Best Trading & Risk Management Solution', 2015 Global Funds Awards

Prominent global investment managers continue to place their trust in Quantifi to help them address both business and technology needs as they replace outdated legacy or in-house tools. Quantifi's single cross asset solution facilitates greater transparency into their pricing and risk metrics and we continue to work closely with our partners to ensure we evolve and address future needs in this rapidly changing environment"

Roland Jordan, Head of EMEA Sales, Quantifi.

EVENTS

KPMG and Quantifi Breakfast Seminar XVA Evolution: From CVA Reporting to Active Management
Toronto, 6th October 2015

WBS 11th Fixed Income Conference
Quantifi presents 'The Cost of Collateral for Clearing'
Paris, 7th - 9th October 2015

New York 2nd Annual Risk Conference
The Dynamics Driving OTC Markets,
New York, 29th October 2015

Quantifi STRENGTHENS

Single Integrated Solution

With its single integrated solution, Quantifi delivers a consistent view of risk from front to back. This latest release, Version is designed to further enhance performance and scalability, reduce operational risk, and help clients better adapt to the new and rapidly changing market environment.

The weight of regulatory reform including IFRS, MiFID, EMIR, Dodd-Frank and IOSCO, and stricter

"Next generation capabilities will require integrated solutions and new competencies around data."

capital requirements have driven firms to focus their attention on holistic risk analytics that provide accurate and timely risk reporting across multiple asset classes and business lines. Quantifi V13 incorporates several enhancements spanning technology, data management, trading, risk management and reporting. "We talk to many different institutions on both the buy and sell sides and integrated risk management is the central theme. Many firms have initiated significant investment in new technology that can accom-

modate risk, analytics, data and reporting in a single solution, with the flexibility to integrate third party components into their existing infrastructure stack. Often the key driver is to improve performance, enhance flexibility, and reduce operational risk and costs. Over the past year we have continued to add depth and scope to our solution by releasing numerous new features and enhancements to product coverage, analytics, functionality, and usability." Avadhut Naik, Head of Solutions, Quantifi.

For clients to be able to better manage and optimise CCP margin requirements, this latest release includes second generation margin analytics. These analytics support emerging best practices for clearing by providing fast, accurate pre and post-trade calculations at portfolio and individual trade level. To support the heavy demands of big data Quantifi utilises a NoSQL database environment which allows for high-performance and agile processing of information on a larger scale. Quantifi uses an ETL framework for managing real-time and batch inbound and outbound data feeds, with pre-integrated feeds for popular data providers include Markit and Bloomberg. "With structural and regulatory forces placing continued demands on capital and ROE, financial firms

"We talk to many different institutions on both the buy and sell sides and integrated risk management is the central theme."

must be equipped to triangulate and optimize multifaceted funding, leverage and capital-related P&L drivers in both business-as-usual conditions and stressed scenarios. Next generation capabilities will require integrated solutions and new competencies around data to enable firms to navigate the opportunities and constraints around trading and risk-taking activities." Cubillas Ding, Research Director at Celent's Securities and Investments Group.

Key enhancements include:

- Expanded asset coverage
- Second generation margining analytics
- Additional regulatory and accounting reporting
- Improved and expanded trading and connectivity
- Enhanced modelling and technology
- Expanded documentation and new model validation tools
- Innovative, new simplified support for market-standard products and trading conventions

The New Edge in Investment Performance:

LIQUIDITY MANAGEMENT



Erik Vynckier,
CIO Insurance
AllianceBernstein



Erik Vynckier, CIO Insurance at AllianceBernstein, was guest speaker at Quantifi's breakfast briefing, which took place on 9 September 2015, at The Mercer, London. Erik shared his knowledge and experience under the theme "The New Edge in Investment Performance: Liquidity Management".

Insurers and pension funds are nowadays bearing the brunt of the liquidity risk in the financial system. Whereas the corporate bond market has grown fourfold since the credit crunch, inventory at the trading desks of the banks has declined. Additionally, Basel III "dis-incentivizes" banks from the repo business.

Long-term investors are eager to acquire illiquid, higher-yielding portfolios including residential and commercial mortgages, infrastructure loans and

“ Collateral management should become an integral part of the asset-liability management of insurers. ”

mid-market corporate loans. Initial and variation margin for essentially all derivatives, and clearing for most, point to potential sinks of liquidity from the balance sheet. Liquidity (and illiquidity) of assets and liabilities have become both underutilized return generators and poorly monitored risk factors.

Given the negative impact on portfolio liquidity and on portfolio returns of sub-optimal collateral management it is imperative that the buy-side improve its collateral practices. Collateral management should become an integral part of the asset-liability management of insurers and be incorporated in the strategic asset-allocation methodology. In terms of new Basel III rules on bank capital and liquidity, one potential implementation of the leverage ratio includes banks' intermediation in the repo markets in the balance-sheet total. This could limit banks' willingness and raise costs for maintaining their brokerage operations in the repo markets. No longer finding cost-effective counterparties for repo activity could further limit an insurer's capability to secure liquidity when needed, forcing the insurer to orient asset allocation to very liquid but low-yielding bonds as a precaution.

For an insurer, the issue of hedging and collateral should be incorporated into the product development cycle: any new product should be tested for potential

“ The right software vendor could capitalize on this business opportunity. ”

derivative trading and collateral issues. Variable annuity plans which, for example, provide a guarantee on a fund investment are not only difficult to hedge with low tracking error but also cause problems as to where collateral can be sourced to support the hedging. Collateral management is no longer just a securities services task. It has impact on front office decisions and has strategic relevance for balance-sheet management and for product development. Front office software today normally lacks the necessary reporting on collateral availability and cost and also does not outline future potential liquidity and collateral needs.

Systems have to be updated to this end, e.g., with additional stress scenarios and Monte Carlo simulation capabilities to enable better planning and optimization of collateral. The right software vendor could capitalize on this business opportunity. It could

“ The best organizations will recognize their limitations and set up effective cooperation with the specialist vendor to achieve best-in-class tools. ”

be speculated that the historical split between "front" and "back" office operations (and software systems) is no longer the most suitable business model.

IS THE BUY-SIDE PREPARED? CAN TECHNOLOGY HELP?

We have gone more and more into electronic trading and settlement as well as software tools for portfolio and risk management. That's another one-way street and every new client or regulatory request piles more pressure onto technology. The sell-side tends to look after its technology needs in-house while the buy-side often sources from solutions providers. Even very sophisticated asset managers might buy superior vendors' systems that they could not build on their own. More and more collateral is involved: anyone using derivatives requires collateral so that they don't sit indefinitely on counterparty risk. Hence liquidity management has now come to the fore.

There should be a dose of realism among CEOs that their financial institutions do not necessarily have unique quantitative risk or software development skills compared with the best of the sector. The difference between successful and failing financial institutions lies more in the culture of the organization and the engagement of the people running the business than in the quantitative risk management software or hardware per se. The best organizations will recognize their limitations and set up effective cooperation with the specialist vendor to achieve best-in-class tools.

The VA with the Kicking

JON GREGORY
INDEPENDENT CONSULTANT

Recent years have seen valuation adjustments take centre stage in the pricing and valuation of OTC derivatives. Costs and benefits arising from credit (CVA), debt (DVA), funding (FVA) and collateral (ColVA) have become critically important in defining the dynamics of OTC markets. The newest - and perhaps most significant - member of the VA family is KVA (capital value adjustment).

Regulation such as Basel III has increased counterparty risk related capital requirements through components such as the CVA capital charge. Regulatory capital for counterparty risk has become increasingly costly

"Regulatory capital for counterparty risk has become increasingly costly and is one reason why some banks have seen return on capital for OTC activities return at best low single digit returns."

and is one reason why some banks have seen return on capital for OTC activities return at best low single digit returns. It is therefore not surprising that the growing rigour around valuation adjustments is being extended to the lifetime cost of holding regulatory capital through KVA (capital value adjustment). Incoming regulation such as the leverage ratio and the use of capital floors has only enforced the significant capital costs that must be borne for OTC transactions, especially long-dated ones.

Banks have for many years set capital hurdles when determining prices to quote in transactions. In some sense, therefore, KVA is the oldest VA of them all. However, traditionally capital hurdles were set loosely and not necessarily with direct reference to actual required regulatory capital. KVA can be seen as formalising such a practice, in line with the relatively sophisticated quantitative calculations that are typically used for other components, such as CVA and FVA. In

short, KVA is an up-front amount that would generate a specific return on capital via rolling (post-tax) profits over the lifetime of a transaction. As shown in Figure 1, a proper calculation of KVA therefore requires calculating the expected regulatory capital over the full term of a transaction. Note that KVA will only produce the correct return on capital in expectation and therefore, like other VA terms, hedging considerations arise.

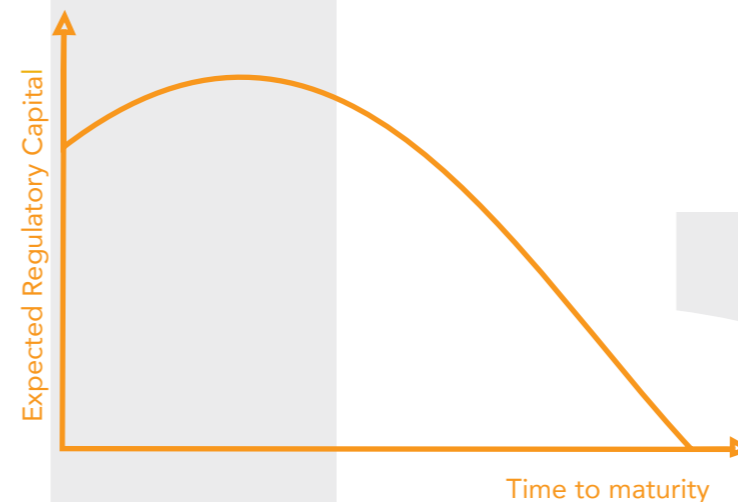


Figure 1. Schematic illustration of the KVA calculation.

The accurate calculation of KVA is complicated by a number of aspects:

- Capital charges change as a function of credit and market risk factors. A correct calculation of KVA should ideally deal with this properly rather than taking a single projected scenario in the future. Since regulatory capital calculations may be Monte Carlo based (at least for banks with internal model method approval), this represents a computationally challenging problem.
- Changes and additions to regulatory rules such as the leverage ratio and the SA-CCR make future capital charges impossible to predict accurately. Recent proposals by the Basel Committee on Banking Supervision suggest that the CVA capital framework may also have a significant overhaul in the coming years.
- Future changes to transactions such as restructurings or unwinds or different underlying collateral terms cannot be predicted with certainty and yet will affect future capital requirements.
- Regulatory capital is generally a portfolio level calculation and therefore the pricing of KVA for a new transaction should ideally account for such portfolio effects.
- The return on capital specified is a rather qualitative parameter not directly linked to any fundamental observable economic quantity. Corrections for effects such as efficiency and tax are also required.

For the above reasons, KVA is often calculated in a relatively simplistic framework with simplifying assumptions. Whilst techniques are likely to become more advanced and align the KVA calculation with the actual future regulatory capital requirements, behavioural aspects (e.g. restructurings and regulatory change) will always create problems.

KVA is being more commonly seen in market prices, although it does not yet have the ubiquity of other components such as CVA and FVA. Banks can take substantially different approaches to reflecting capital costs in transactions. Nevertheless, it seems likely that KVA will become another relatively standard valuation adjustment with time. This raises the prospect of whether KVA will also become an accounting adjustment, driven by the exit price concept attached to fair value. In one sense this might seem inevitable but there are large hurdles: for example, banks would have to report substantial losses to reflect capital costs not previously part of financial statements. Furthermore, xVA desks in banks would be incentivised to transfer-price and risk manage KVA, leading to even larger P&L swings and

"Almost a decade since the start of the financial crisis began, KVA is more than another valuation adjustment and may change the entire derivatives business model"

hedges than such desks already require. A well-known aspect of banking is that profits on transactions are often recognised immediately and paid out in bonuses and dividends. This leaves nothing left to show as a return on a transaction in future years. Since OTC derivative transactions can exist for many years, or even decades, this has long been viewed as a problem and was seen as contributing to a reckless bonus culture in banks. A fascinating feature of KVA is that it has the ability to redress this imbalance. A bank reporting KVA adjustments would accrue the profit over the life of a transaction rather than upfront. Almost a decade since the start of the financial crisis began, KVA is more than another valuation adjustment and may change the entire derivatives business model.



Jon Gregory's latest book, "The xVA Challenge" has been recently published by John Wiley and Sons

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 & OTC Partners Webinar

Emerging Trends in the Global Buy-Side Community

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 explored 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.

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New Corporate Website

Quantifi is pleased to announce the launch of its new corporate website. The new site has been rebuilt from the ground up with a more up-to-date look and feel, as well as completely new content to accurately reflect our business as it is today.

The new parallax-format site is easy to use and provides an optimal viewing experience on desktop, laptop, tablet and mobile.



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®

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