Derivatives Regulation

FIXing derivatives: The need for standardisation in the derivatives industry

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Abstract

The Financial Information eXchange (FIX) protocol was originally developed with equities in mind, but later versions have included fields for exchange-traded derivatives and beyond. This paper looks at the benefits the standard could bring to the derivatives market.

INTRODUCTION

The Financial Information eXchange (FIX) protocol was developed by the banking IT industry for its own use — it was borne out of a need to effectively communicate indications of interest for equity trades and automate what was essentially a very mundane daily chore. The latest version, FIX 4.4, has come a long way from those early days, and has been gradually extended to communicate any kind of order, including exchange-traded derivatives. Furthermore, the FIX Standards Working Group has taken FIX from the front to the

back office, creating an XML version of FIX — FIXML — for communicating post-trade confirmations.

A memorandum of understanding between FIX Protocol Ltd and the Futures Industry Association (FIA) in 2003 served as a catalyst in convincing the exchanges and clearing houses that standardisation in the electronic communication of orders and confirmations was in everyone's interests.

The need for standardisation of exchange-traded derivatives' order routing and confirmations has never been greater, owing to the globalisation of the industry. Regardless of the technical benefits of a standard, just getting all the derivatives exchanges and their members to use a common vocabulary and message semantics for describing a trade would be a major achievement. Few banks are members of just one exchange and, as the exchanges launched or built electronic trading systems, each did so in complete isolation, so that

each exchange built a different proprietary application programming interface (API). It is down to banks to maintain these crucial links to the exchanges. Some clearing firms are known to be maintaining up to ten different market data APIs from exchanges and every time an exchange launches a new product, the re-engineering process begins over again. Lack of consistent use of the standard greatly affects the success of its adoption; it is these foundations that are being hammered out now between the multi-exchange working groups.

Having a standard will inevitably bring cost savings for clearing firms, as they will be able to replace multiple proprietary APIs with a single interface. To some extent, in the early days of electronic trading, the better the API, the faster the exchange, but today there is little competitive edge to be gained through lack of standardisation.

Last year, Eurex and Deutsche Börse launched their Xentric FIX Gateway; both use FIX as an alternative standard in parallel to their Values API for order routing and trading confirmations. According to a spokesman for the German exchanges, the aim is to give banks a choice as to which standard they use. While the interest is there, some banks are further ahead than others, and take-up has been slow, as banks carry out the programming work on their systems first. Eurex Clearing is understood to be looking into the feasibility of extending this to the back office with the adoption of FIXML, but a decision has not yet been made.

While the derivatives industry appears to be focusing on FIX version 4.2, Meff has gone furthest down the road towards

adoption of the newest version, FIX 4.4. This has enabled the Spanish exchange to lead the way and set standards for the use of FIX in market making quotes and order routing for international futures and options markets.

One clearing bank, Dresdner Kleinwort Wasserstein (DrKW), began adopting FIX for derivatives in 2003. Fabian Somerville-Cotton, head of listed derivatives at DrKW, says: 'Although FIX isn't quite the standard that people believe it is just yet — there are currently three different versions — it enables a very efficient method of order routing. It means our clients are not tied to any particular order routing platform, and our telephone conversations can be more meaningful as we are not expending energy on vanilla execution.' At first, DrKW's main problem was that, while the bank was FIX-enabled, its exchange clients were not. Somerville-Cotton, however, reports a marked improvement in the level of awareness and adoption of FIX from customers in the past 12 months.

FIX-ING THE BACK OFFICE

But where the FIA's work is making its biggest impact is in the back office and standardising the links between the clearing houses and the banks in the US. One of the pioneers in the wide-scale adoption of FIXML has been the Chicago Mercantile Exchange's (CME's) clearing house. Matt Simpson, associate director and business systems architect at CME says: 'FIXML provides a flexible interface, which can be extended without impacting firms who may

not yet be ready to take advantage of new features. This is a fundamental premise of XML of which CME will take advantage as we continue to increase our suite of services offered over FIXML.'

For Simpson, it is the flexibility of the message format that enables the clearing house to add new instruments without extensive programming. He says:

'FIXML also allows field sizes to be increased without impact to the interface itself. This is a far cry from fixed length record formats, which require that costly interface modifications be made in order to extend a field. FIXML also provides an extremely extensible structure for instrument definition. As trading strategies become more complex it will become more important to convey the legs that make up that strategy as well as the underlying instrument.'

CME is currently using FIXML to allow firms to post position change submissions (PCS) throughout the day in order to tune their end-of-day positions. Around 30 clearing firms are using FIXML services on a production basis. CME's critical end-of-day Trade Register is also being produced in FIXML and, eventually, all its trade and position interfaces will be converted to FIXML.

Says Simpson:

'The movement toward FIXML has required a transition for the industry away from legacy interfaces and toward a more versatile and robust technology that should serve the industry well for years

to come. The transition to new and better technology is not without a cost, but the expectation is that the cost will be recouped many times over. FIXML will pay dividends in terms of providing the basis for a common interface, reduced development, reduced time-to-market, and increased flexibility.'

But John Munro, Senior Vice President, Product Design, at Rolfe & Nolan and Chairman of the FIA Standards Working Group, says that there will come a time when the adoption of FIX by the futures exchanges and clearing houses will no longer be an option. 'The old messaging formats that the exchanges use are becoming outdated', he says, 'they are constrained by fixed fields for each instrument. Soon, the old-style messages will not be able to support new products.'

Back office IT provider Rolfe & Nolan currently has 11 live customers using FIXML to connect to the CME. The significant inefficiencies of developing and supporting multiple clearing interfaces for exchanges, members and software providers in a rapidly changing exchange environment are becoming increasingly difficult to support. From the vendor perspective, support for multiple clearing interfaces is costly and time-consuming, requiring experienced, dedicated resources for problem resolution. Even small enhancements require significant analysis, design, programming, testing and implementation. Futures commission merchants (FCMs) maintaining their own proprietary systems incur even higher costs, as they do not benefit from the economies

of scale enjoyed by specialised vendors able to maintain a staff experienced with unique data formats.

Other exchanges and clearing houses committed to the FIXML standard are the Clearing Corporation and the Options Clearing Corporation in Chicago, the New York Board of Trade (Nybot) and the New York Mercantile Exchange (Nymex). The anticipated date for conversion of all clearing formats to these US exchanges to FIXML is the end of 2005. Despite the fact that LCH.Clearnet is building a wholly new clearing platform, scheduled to be ready by 2008, however, the merged clearing house is unable to confirm whether it is even addressing the need to adopt FIXML.

THE BEST OF BOTH WORLDS

Creating a basic standard for expressing the highly tailored instruments traded over the counter has largely been achieved by the International Swaps & Derivatives Association (ISDA), using the mark-up language, FpML. The industry's FIX and FpML working groups are now collaborating on how to include elements of FpML into the FIXML schema and vice versa. As the focus on FIXML has been on back office processing, the FIX-FpML collaboration will work well for those firms looking to expand their back office processing to include over the counter (OTC) derivatives.

Jean-Marc Bouhelier, executive director and Chief Information Officer of Euronext.liffe, says that Euronext.liffe continues to use proprietary links to

LCH.Clearnet. For the front office, Euronext.liffe has instead built an API loosely based upon FIX 4.2, giving the exchange the best of both worlds.

Bouhelier says:

‘From a trading perspective FIX causes us two problems. It actually dramatically reduces performance in the very active contracts and we do not have confidence that it can support a lot of the complex strategies and additional functionality provided in our application programming interface (API).’

Euronext.liffe will, however, use elements of FIXML when it launches its OTC equity and index service in the third quarter. Bouhelier adds:

‘This will be a three-tier service — pricing, trade booking and trade matching — for OTC single equity options and index options. In this context we will be implementing elements of FIXML. The reason for this is this is obviously a much lower volume transaction service, and because of the nature of the product being OTC, effectively every single transaction is a new product. So we are really getting value in using FIXML, and we are actually able to give customers the ability to match their transactions.’

Member firms will be able to choose from two levels of service, depending on whether they have built a FIX engine. They can either key in the deal, which will be possible in a low transaction

environment, or use the Euronext.liffe FIXML interface. 'In the OTC space, FIXML can actually bring a lot of value to our customers', adds Bouhelier.

The need for standardisation initially came from the banks, now that the exchanges and clearing houses have begun to respond to this, it is up to the banks to ensure industry-wide adoption. The fact that there are three different versions of FIX should not be a deterrent — convergence will come, it is more important that the industry is speaking in the same technical language first. The lack of standardisation in FIX is not as big a problem as every market having a completely different proprietary market data interface.

The next issue the industry needs to address to encourage the adoption of FIX is market making or, moreover, the use of FIX for fast, high volume applications that are automatically generating market quotations in response to rapidly changing market data. According to the FIX Global Derivatives Committee, the sheer volume and speed of prices required to quote listed option series pushes the FIX 4.2 tag = value version — which the majority of the industry is using — to its limits. Jim Northey, Chief Technology Officer of Jordan & Jordan, and Chair of the FIX Global Derivatives Committee, says: 'Until FIX can provide a clear solution for high volume market making, the dominant market making APIs will continue to be proprietary.'