For Whom the Bell Tolls

Successfully running the gauntlet of regulation and technology in the derivatives markets

Steve Grob
Director of Group Strategy
@SteveGFidessa

Throughout 2006 European equity markets were busy preparing for the arrival of MiFID, which shared similar objectives to Reg NMS which was implemented across the pond some years earlier. Just as in the US, most European market participants were focused on operational readiness and ensuring that their systems and procedures met the various checklists created by the armies of consultants they had employed. Few firms had really thought about how the new rules were going to transform the trading landscape, or what they would need to do to stay relevant. Fewer still were prepared for the way regulation and technology would combine, wrap around the industry and set it on a path of almost constant change and unintended consequences.

The derivatives industry now looks set to run the same gauntlet, as regulators seek to extend the reach of MiFID (competition, transparency and fairness) into new asset classes and, at the same time, lower systemic risk in the wake of the Global Financial Crisis. In theory, the derivatives industry should be able to make this transition more easily, as it has had the luxury of watching its counterparts in equities go first. Then again, derivatives are being touched concurrently by multiple regulations such as MiFID II, EMIR, Dodd-Frank and the Volcker Rule. These new rules are also coming from multiple geographic epicentres and so, where they overlap on the same issues, the potential for confusion (and therefore opportunity) is that much greater.

This paper looks at how the derivatives industry will be reshaped in light of these changes, the impact on market participants and the ways in which some firms are already evolving their business models accordingly.

Impact on the venue space

The new regulations will affect all parts of the derivatives food chain, but venues are likely to feel the greatest impact especially in terms of exactly where and how derivatives contracts are traded. The shifting of bilateral OTC activity onto centrally cleared, electronic platforms is perhaps the most obvious example.

Centralised clearing is the darling of the regulators, as it is seen as the safest way to trade instruments that well-meaning politicians deem to be risky. This is one of the fundamental assumptions behind the Dodd-Frank Act that seeks to move as much OTC or bilateral derivatives volume as possible onto centrally cleared trading platforms known as Swap Execution Facilities, or SEFs. This mantra has been picked up in Europe too but, just as with equities, regulators may find that their good intentions are tripped up by the law of unintended consequences.

Firstly, there are those who challenge the whole principle that centralised clearing is safer in the first place. Some large buy-sides can prefer the bilateral model, particularly if they only trade with other large institutions that are similarly risk averse and well capitalised. For them, centralised clearing is potentially riskier as they don't know which other firms their margin is being combined with, or the credit ratings of these firms. In addition, central counterparty clearing houses (CCPs) generally do not hold a banking licence, and so there is also the fundamental question around the risk associated with the bank or custodian that the CCP deposits its collateral with. Whilst CCPs certainly play a central role in mitigating counterparty risk, then, the politicians need to understand that they don't remove it entirely either.

A bigger problem, though, concerns the sheer practicality of moving relatively 'odd-shaped' OTC contracts onto electronic platforms. Both Dodd-Frank and EMIR recognise this challenge by including the clause "...provided there is sufficient liquidity" in their legislation. But defining "sufficient" in this context is almost impossible as no one knows how many platforms there will be or how (if at all) they will interoperate.

This is further complicated by the fact that the European equivalents of SEFs have a very different parentage from their US counterparts. Back in 2007, MiFID spawned a range of alternative trading venues which were then quick to complain that the brokers' electronic crossing activities were not subject to the same regulatory oversight as they themselves were. The response from the regulators was to propose a new venue type, the Organised Trading Facility (OTF), which would give brokers the necessary discretion in how they matched orders electronically whilst still bringing their platforms within a venue-like regulatory regime. But, somewhere down the line, Brussels diverted its OTF train from this particular track and set it firmly on the path to becoming the European equivalent of Dodd-Frank's SEF. The net result is that it will be almost impossible to create one venue that passes the necessary hygiene tests for both and this will undoubtedly have a knock-on effect on the concept of "sufficient liquidity".

Certainly, one of the biggest post-MiFID grumbles about multi markets is the shrinking of average trade size caused by the combination of a greater number of venues and the growing presence of high-frequency trading (HFT). Some observers have raised similar concerns about the impact of OTFs and SEFs, many believing that the move to multilateral automated transactions will harm liquidity in the derivatives markets in much the same way. Large-sized deals will be broken up into smaller transactions spread across a range of venues, making it increasingly difficult for investors to trade in size. Despite these issues, it seems that the regulatory commitment to shift OTC volume onto CCPs is unwavering.

In Europe many firms are seeking OTF status for existing entities such as broker crossing networks or inter-dealer broker (IDB) systems that bring together third-party interests via voice or hybrid voice/electronic methods. Others in the industry are less sure how to respond. In the current economic climate it is hard to commit to build such platforms from scratch, (especially when the exact regulatory climate remains unclear).

This has led to a growing sense of 'first mover disadvantage' as firms that could (or should) be in this space are holding back waiting to see what the rest of the herd does. Many of these firms see the sense in building an aggregation layer that can scan and extract liquidity from the different platforms that do emerge, but few want to build these platforms themselves.

Genesis of competition

Until now, competition for execution in exchange-traded derivatives (ETD) markets has been limited. This is because the major exchanges either own the intellectual property of their benchmark index products (via exclusive licenses) or control the open interest in their listed products through vertically integrated clearing houses. Competitor platforms are cut out by this lack of product fungibility, and therefore suffer from an inability to draw open interest away from the incumbents.

The failed merger of Deutsche Börse and NYSE Euronext helped highlight this issue and served as a wake-up call to those politicians that had assumed all asset classes were really the same. In giving the deal the thumbs down in February 2012, the European Commission argued that it would have resulted in a quasi-monopoly in European financial derivatives given that, together, the two exchanges control more than 90% of global trading along the European interest rate curve.[1]

The refusal by Eurex, in 2011, to grant the London Stock Exchange Group a licence for the STOXX index has also been held up as another example of anti-competitive behaviour in ETDs. All of this has helped grow the competitive appetite within the European ETD space; both primary venues and alternative MTFs are now focused on how to challenge the stranglehold that NYSE Liffe and Eurex have on the market. Whilst there's no certainty that their efforts will succeed, they are entering a space that the regulators view as worthy of greater competition.

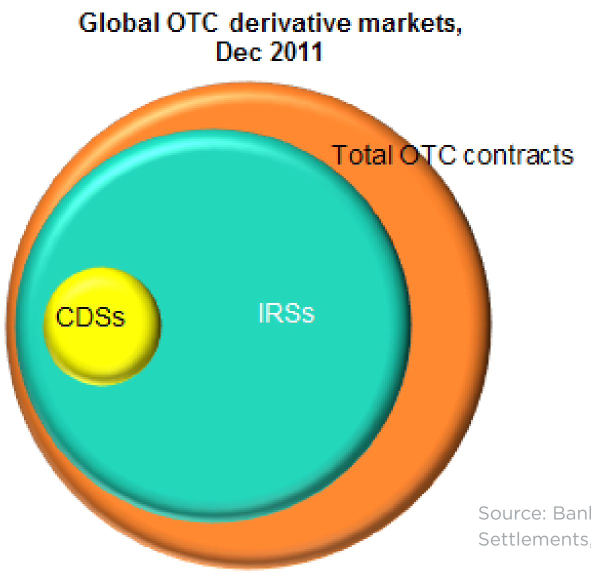
One approach being taken by alternative venues is to licence (or create) new indices on which to base derivatives contracts. Others are looking to replicate existing (non-IP protected) products but offer cheaper access and lower exchange fees. The recent announcement by NASDAQ OMX to compete head on with Liffe and Eurex in the interest rate derivatives market underlines the growing competitive fervour.

Either way, the pattern of liquidity in ETDs looks set to become increasingly complicated as we see a number of attempts to create new instruments that aim to be economically identical to those of the incumbent exchanges.

In an effort to reinforce their position, some of the traditional venues are attempting to draw OTC cleared trades into their clearing houses and offset them against their existing ETD open interest, pitting themselves firmly against the traditional OTC business model. CME Group, Eurex, ICE and, following its acquisition of LCH.Clearnet, the LSE too, all own and operate such vertical clearing silos. Both NYSE Liffe and the London Metal Exchange have also announced plans to do the same. Maybe we could see the emergence of a number of vertical CCP silos based around specific currencies - CME Group with US$ and Eurex with Euros, for example.

This siloed clearing model is, however, diametrically opposite to MiFID II's intended aim to allow CCPs access to competitors' exchanges and so we should expect some push back from the regulators. Unfortunately, though, the experience of interoperability in equities has not been universally positive as market participants have railed against the additional cost and complexity of such linkages. It's interesting that the model for US equities - which is

Figure 1



Source: Bank for International Settlements, May 2012

[1] European Commission Press release, 01 February 2012: Mergers: Commission Blocks Proposed Merger Between Deutsche Börse and NYSE Euronext

based upon a single industry utility, the Depository Trust and Clearing Corporation - seems to find greatest support.

But whatever happens in terms of greater ETD competition, market participants will face some tough decisions about which initiatives to support, either in terms of providing liquidity or participating more directly in building them.

A clear way forward?

The clearing space will also be reshaped by the growing number of OTF/SEF platforms that will emerge too. This is a complicated issue, as the interplay between those instruments eligible for centralised clearing and those that are eligible for multilateral execution is subtle. Whilst all derivatives that are traded on an exchange are cleared centrally, the converse is not true. Nevertheless, the opportunities presented by this have had the global exchange franchises jockeying for position in clearing derivatives across various asset classes. In Europe, ICE led the way with its iCredit clearing facility and broke from market convention by buying a credit broker (Creditex) to help facilitate the move of OTC credit trades into its wholly owned CCP.

Compared to the size of the credit markets (valued at around US$1.6 trillion), however, interest rate swaps (at over US $18 trillion)[2] are the real prize (see Figure 1).

Early in 2011, CME Group created a swaps clearing house in Chicago (alongside its successful listed rates clearing franchise) with a small handful of buy-side partners, bypassing the largest swaps dealers. But the strategy failed and dealers were ultimately invited in as shareholders in the venture which has led to a slow increase in cleared US-denominated swaps volume on the CME. It has since set up its own clearing house in Europe and, whilst initially focused on OTC energy trades, it has made no secret of its ambitions in the European interest rate swaps business.

Eurex recently announced that it is co-operating with seven global banks to launch an OTC clearing facility in the second half of 2012. Alongside its successful futures and options clearing house it has the potential to lure participants with margin offsets against its substantial listed derivatives clearing pool. The size of the opportunity for the incumbent vertical silos is significant, but it remains to be seen how OTC market participants will allow this to play out.

Will the large ETD clearing pools successfully suck the OTC open interest into their silos? Or will the larger, existing OTC pools remain mostly where they are and encourage ETD markets to be more open in how they interact with the largely horizontal OTC pools?

The lure of OTC clearing was undoubtedly the reason why the LSE Group was so eager to take over LCH.Clearnet, the largest OTC derivatives clearer in Europe. Its successful RepoClear franchise provides the LSE with a formidable competitive bulwark that other venues may have a hard time breaking down. Given that the OTC derivatives market is more than ten times larger than the exchange-traded market[3] (see Figure 2), the CCPs with the strongest OTC clearing pool may, in fact, have the upper hand and be able not only to defend their liquidity, but also to attract volume from exchange-traded clearers too. For the LSE then, the LCH deal could prove a great way to grow trading volumes on its Turquoise platform which, up to now, have remained modest.

New margin requirements for OTC products brought into the ETD execution and clearing world will also add considerably to the cost of trading for traditional buy-side users. This is because centralised clearing is predicated upon upfront margining. Given the enormous size of the current OTC market, this will require the industry to find very large amounts of capital that can then be lodged with clearers. Estimates vary but TABB Group has claimed that nearly $2 trillion could be required for interest rate products alone. Coming at a time when Basel III is increasing capital adequacy ratios anyway, the cost of capital has never been higher. In fact, it's doubtful whether there is enough high-quality collateral available if all the OTC trading that exists today were to be centrally cleared.

Non-exchange trading platforms and CCPs are looking at ways to get around this problem by implement-

Figure 2

Exchange-traded derivatives Notional amounts outstanding, Dec 2011 (USD billions)*	
Futures	**22,924**
North America	13,108
Europe	6,531
Asia Pacific	2,339
Other Markets	946
Options	**33,639**
North America	18,026
Europe	14,281
Asia Pacific	350
Other Markets	983

OTC derivatives Notional amounts outstanding, Dec 2011 (USD billions)*	
Total contracts	**647,762**
Interest rate contracts	504,098
Foreign exchange contracts	63,349
Unallocated	42,609
Credit default swaps	28,633
Equity-linked contracts	5,982
Commodity contracts	3,091

Source: Bank for International Settlements Quarterly Review, June 2012

[2] Bank for International Settlements, May 2012: Detailed tables on semiannual OTC derivatives statistics at end December 2011

[3] Bank for International Settlements Quarterly Review, June 2012

ing new margin models such as Value at Risk (VaR) versus Standardised Portfolio Analysis Risk (SPAN), offering client clearing down to the final beneficial owner of the trade, and looking at ways to implement margining efficiencies across OTC and ETD products.

As mentioned earlier, current proposals under MiFID II require CCPs to clear trades across a broad range of asset classes on a non-discriminatory and transparent basis - including collateral requirements, cross margining, netting of economically equivalent contracts and access charges - regardless of which trading platform they are executed on. This means that Eurex Clearing, ICE Clear and CME Clearing may be required to clear derivatives trades from platforms that compete directly with them.

The prospect of greater competition between CCPs has led some to argue that this might even increase systemic risk, with competitive pressures leading some to offer unrealistic offsets or more lenient terms in order to attract customers. If this scenario is combined with complex interoperability (often under different geographic jurisdictions) then the industry may find that if it does ever need to pull the ripcord, then its CCP parachute might fail to deploy properly.

A world of opportunities

The advent of centrally cleared OTC products, the growth in lookalike instruments and the potential for regulatory arbitrage demand a strategic rethink by Futures Commission Merchants (FCMs) and brokers if they want to remain relevant and take advantage of these structural changes.

One thing is certain, their workflow is likely to get increasingly complicated as the market sees a growth in the number of electronic platforms and, potentially, the need to smart route between economically identical (or very similar) instruments that are traded on different venues. This will require some of the same techniques that were developed for the equities world, including smart order routing (SOR) and greater use of algorithms generally. These tools will become increasingly important as liquidity spreads between multiple OTFs, SEFs and virtually fungible instruments on traditional exchanges.

Whilst it is not yet clear exactly how all this will pan out, the old-fashioned approach of simply firing your clients' orders at the appropriate exchange looks set to become a thing of the past. Managing exposures to multiple trading platforms (exchanges, MTFs, OTFs, and SEFs) and multiple CCPs will require a new approach to market data, counterparty credit rating and other crucial reference data. To make this even more challenging, real-time clearing of OTC and ETD products side-by-side is inevitable, and those with the fastest and most reliable systems disseminating trading, clearing and reporting data will gain the edge.

Other opportunities will be found in the ownership and control of OTC trade flow and the ownership of data from that flow. Who will own the rights to create and licence new products from this data? The impact on innovation will almost certainly be positive and there is everything to play for in the next three to five years.

The role of HFT is also likely to come into question as the derivatives and cash equity markets continue to converge in terms of their structures. HFT has been the subject of much debate on both sides of the Atlantic, leading European regulators to outline a six-part checklist to define what, in their view, HFT really comprises.[4] Any firm that ticks four of these tests is then likely to be under more formal market making obligations, regardless of what asset classes they are trading. Whether HFT actually improves market quality or not, it does represent the ultimate example of how regulation and technology have ensnared one other. The plain fact is that market participants will always be able to innovate and roll out new business models faster than regulators can pass laws.

Forearmed with knowledge of the unforeseen consequences that recent regulation brought to the equities world, derivatives market participants should be alert to both the pitfalls and the opportunities that lie ahead of them. Derivatives markets are at the start of a fundamental restructuring that will create new revenue opportunities for those that have prepared themselves and niche opportunities for new participant types. Operational readiness will form a critical part of these preparations and so governance, training, risk controls and compliance will all be crucial to the process. Real competitive advantage, however, will only come from accurately surveying the new landscape and developing new business models and the right technology solutions to navigate it effectively.

[4]EU Committee on Economic and Monetary Affairs Draft Report on the proposal for a directive of the European Parliament and of the Council on markets in financial instruments. Rapporteur: Markus Ferber, 16 March 2012

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