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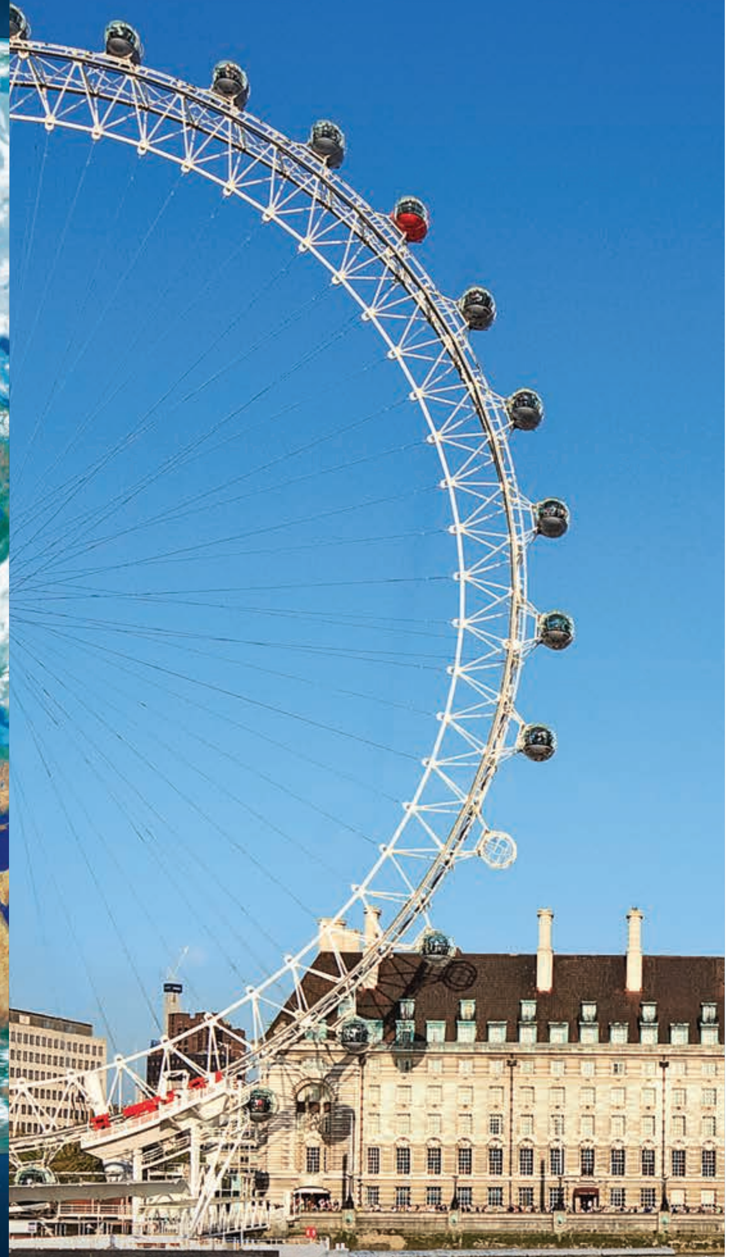

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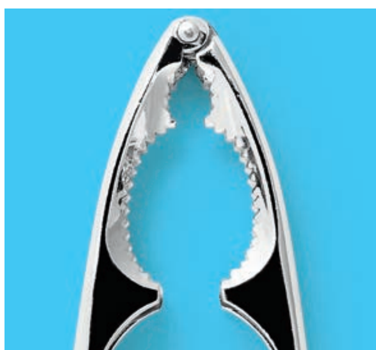

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Steve Sparke

Chairman, FIA Europe

The past 12 months have been a crucial time for FIA Europe. Since this publication was last issued, the trade association has not only changed its name, it has also formed an alliance with FIA as part of a structure that recognises the increasingly global impact of regulation.

As trade associations spanning the three core regions of the derivatives industry, FIA Americas, FIA Europe and FIA Asia are able to provide a coordinated and strategic view of how the industry is shaping up under continuing pressure. They are also able to work together to assess the impact of regulation beyond its intended remit.

While regulation has been drafted at a national or, in the case of Europe, regional level, the implementation of that regulation has often had a much broader reach. Irrespective of where they are located, firms across the globe are increasingly having to understand how rules that have been written up in another part of the world are impacting how they do business.

Regulators have not made things easy for the industry – and, one could argue, why should they? Well, the consequence of making it harder for firms to comply with their rules is that the regulators themselves are not necessarily getting what they want, or meeting their own objectives.

Take trade reporting as an example. While the industry has been working tirelessly to deliver on the often opaque requirements of the European Market Infrastructure Regulation (EMIR) and, significantly, made enormous headway in meeting the implementation deadline of 12 February, it is questionable whether the data generated for regulators is of genuine use. The Commodity Futures Trading Commission (CFTC) already admitted as much following its own implementation of reporting requirements.

Changing capital rules designed to make the end user safer, when implemented both at the clearing futures commission merchant (FCM) and at the central counterparty (CCP) level, are actually making the business of 'clearing' uneconomic, and starting to drive providers of clearing services out of the market. This gives rise to concentration-risk concerns, as the number of clearers reduces, as well as the inevitable cost issues for the end user as costs are passed down the chain.

Similarly, the knock-on effect of implementation of complex segregation and portability requirements under EMIR presents significant operational risk for firms and their clients, irrespective of how laudable the objective is. Meanwhile, the front-loading requirement for mandatory clearing has led the European Securities and Markets Authority (ESMA) itself to suggest that it may introduce "significant uncertainties in the market, with the consequences mainly borne by derivatives end users".

The pressure to meet such regulatory demands shows no sign of abating. This means that FIA Europe's role remains critical to the industry and its ability to address such issues and fulfil global objectives to enforce a safer, more robust and transparent marketplace.

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Simon Puleston Jones

Chief Executive Officer, FIA Europe

A time of hope, change and opportunity

A key role of FIA Europe is to be the educator and thought leader for the cleared derivatives industry.

The sheer breadth of issues that are discussed in this year's publication provides a sense of the revolution that is occurring within the industry. That revolution has several causes: regulatory change, shareholders demanding a certain level of return on equity, and the relentless pace of technological and product innovation, to name a few.

Looking back over the past 12 months, implementation of the European Market Infrastructure Regulation (EMIR) has proved challenging – trade reporting, central counterparty (CCP) authorisation/recognition and mandatory clearing have all presented issues. Looking forward, we can see that EMIR implementation, for all its problems, will seem like a walk in the park compared with the Markets in Financial Instruments Directive (MiFID) II advocacy and implementation work that lies ahead over the next two to three years. The European Securities and Markets Authority (ESMA) has been handed an unhelpful timetable, such that responses to its MiFID II/ Markets in Financial Investments Regulation (MiFIR) discussion paper and consultation paper will need to be provided in a short ten-week window that falls in the middle of the holiday season and concurrently with a number of other initiatives such as the Committee on Payment and Settlement Systems-International Organization of Securities Commissions (CPSS-IOSCO) proposals on CCP recovery and resolution, and the ESMA consultation on market abuse.

MiFIR will result in many more derivatives being executed on trading venues for the first time. That trading will take place in a much more competitive and transparent landscape, thanks to the requirements for non-discriminatory access to trading venues and benchmarks, and the provisions relating to pre- and post-trade transparency.

With respect to clearing, we see a number of changes on the horizon. The changes brought about by EMIR – with a range of new account structures for individual segregated accounts, indirect clearing provisions and mandatory

"Looking forward, we can see that EMIR implementation, for all its problems, will seem like a walk in the park compared with the MiFID II implementation work that lies ahead"

clearing obligations – are being added to with new requirements under MiFID II/MiFIR. It remains to be seen whether the non-discriminatory access provisions of MiFIR will be successful in opening up the vertical silos of exchanges and clearing houses in Europe. One of the biggest concerns, however, is the cost of clearing. The regulatory capital costs of acting as clearing broker have seen the Royal Bank of Scotland withdraw from over-the-counter (OTC) client clearing. There is a significant risk that they are merely the first domino to fall, with other banks to follow over the next couple of years. This will hinder the successful implementation of the EMIR clearing obligation and lead to a further concentration of risk and access to clearing.

Non-bank brokers face similar changes due to the ever-increasing demands for margin from clearing houses. Such brokers are much less able to meet such demands, so withdrawal of some of these clearing brokers from the market can also be anticipated.

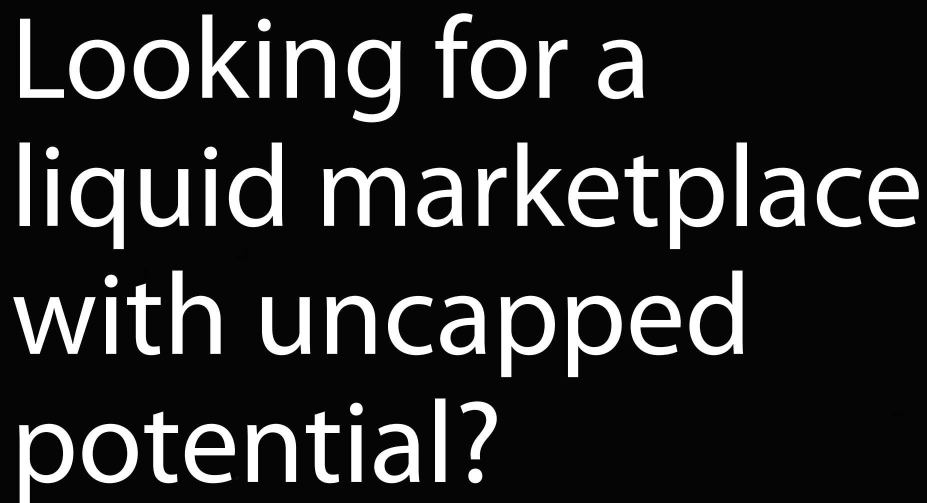
As the banks pull out of commodities and OTC clearing, it is far from clear who will fill the void – less-well-capitalised trading houses may not be the answer, given the challenges that some of them have in meeting the funding and liquidity requirements faced by clearing brokers.

“I fear that lawmakers and regulators have no better feel for what the cleared derivatives industry may look like in 2020 than anyone else”

The drive to cut the cost of clearing is leading to increased focus on the outsourcing of IT and operations services. When Barclays announced that it was cutting 20,000 employees from its group (including 7,000 from its investment bank), it mentioned that 40 per cent of those cuts would come from operations, as and when their IT infrastructure was further developed to replace the need for human intervention. A number of third-party vendors offer services relating to credit checking, trade acceptance, exchange connectivity and post-trade operations.

I fear that lawmakers and regulators have no better feel for what the cleared derivatives industry may look like in 2020 than anyone else. We need them to provide ‘20/20 vision’ on what they hope and expect the industry to look like as we transition into the next decade. With so many different sources feeding into the answer (G20, CPSS-IOSCO, Basel Committee and national competent authorities to name a few), the real challenge is that there is no one individual or team of individuals whose task it is to look at the European (or, much less, the global) industry as a whole and be responsible for making sure that the various pieces of the puzzle fit together in a coherent and consistent way that ensures the regulatory objectives can be successfully met.

There has never been a more interesting or opportune time to be involved in the cleared derivatives industry. Happy reading…



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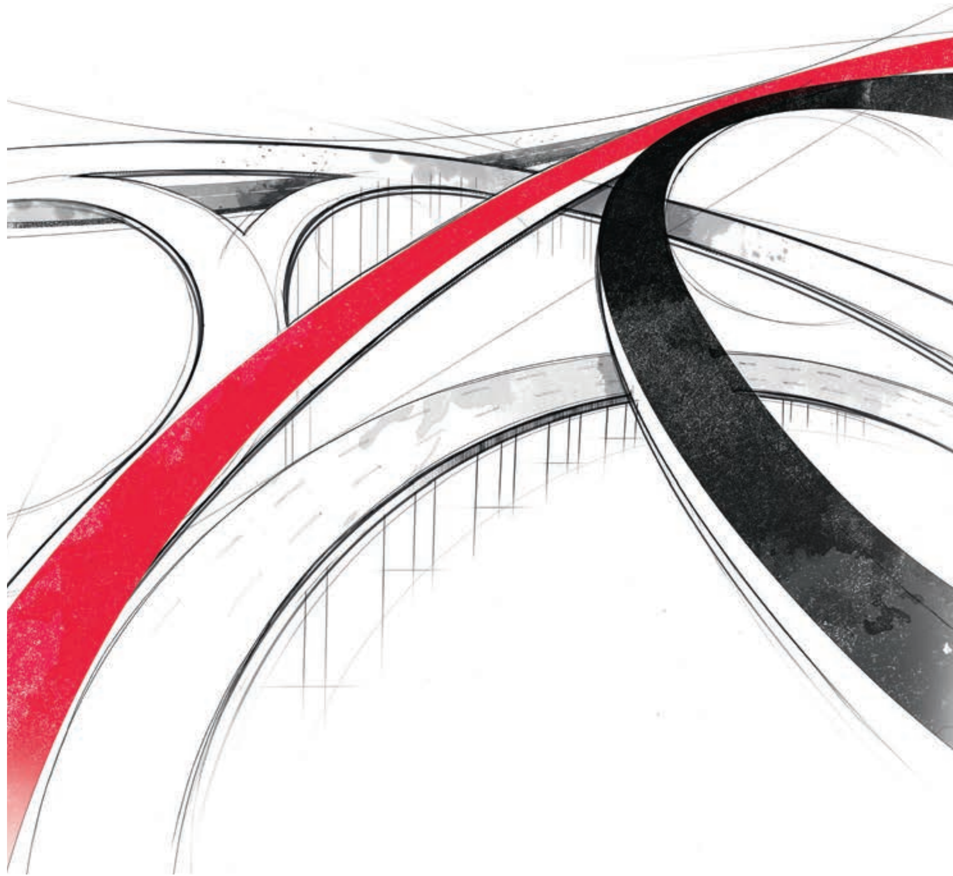

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David Lawton

Director of Markets, Financial Conduct Authority

Working together on derivatives reform

"I love deadlines. I like the whooshing sound they make as they fly by." So said Douglas Adams of his inability to keep up with the demands of his publishers. It is probably a stretch to suggest that, had he been alive today, he would have enjoyed working in derivatives. But he would certainly have found plenty of deadlines to keep him interested.

It has been more than a year since the whooshing of European Market Infrastructure Regulation (EMIR) deadlines began, with requirements on timely confirmation in March 2013. Since then, we have had portfolio reconciliation, dispute resolution and portfolio compression in September 2013 and reporting to trade repositories in February 2014. Still to come are exposure reporting in August, mandatory clearing around the turn of the year and bilateral collateralisation in December 2015.

The UK derivatives industry has done far better than merely let these deadlines whoosh past, putting in a sustained effort to comply on time, and engaging constructively with regulators on open points of interpretation.

The relationship between industry and regulators has been a positive force in ensuring that derivatives reform delivers its objectives of greater transparency and better counterparty risk management. The industry has generally accepted the case for reform and, in many cases, taken our objectives as its own.

The FCA continues to keep our doors open for comment and questions from industry; and works closely with the European Securities and Markets Authority (ESMA), the European Commission and other European authorities on questions of European implementation. At the global level, we work with the International Organization of Securities Commissions (IOSCO) and the Financial Stability Board (FSB) to maximise the level of cross-border consistency and cooperation. In the commodities world, we have shared our thoughts on market developments, and reconfirmed our regulatory approach.

While the first batch of reform has focused on OTC derivatives, significant change is also coming for on-venue instruments. Agreement has been reached on the Markets in Financial Instruments Directive (MiFID) II, which will bring in mandatory on-venue trading, greater transparency pre- and post-trade, recognition of electronic trading techniques, and position reporting and limits in commodities. We have been closely engaged in the development of ESMA's weighty consultation on implementing measures and look forward to receiving high-quality feedback from stakeholders.

I cannot promise any abatement in the whooshing of deadlines, but I look forward to continuing to work together to make the derivatives markets work well and be more robust and transparent for the future.

MiFID progress trips up on e-trading

Although advances have been made in improving transparency, differences between jurisdictions are hampering efforts to achieve global reform of the derivatives markets, writes **Sean Farrell**

It is nearly five years since the G20 leaders resolved to overhaul the market in over-the-counter (OTC) financial instruments in the wake of the financial crisis. The aim was to improve transparency in derivatives markets, mitigate systemic risk and protect against market abuse. The Financial Stability Board (FSB), which coordinates the global reform effort, reported in April 2014 that steady headway had been made and that work on any outstanding policy standards was on course to finish by the G20 leaders' summit in Brisbane, Australia, in November 2014. But the FSB conceded that progress remained uneven.

Of five key areas for implementation, trade reporting, capital requirements and central clearing showed clear signs of progress while implementation of margin requirements was on track for late 2014 or early 2015. However, the FSB said the drive for the crucial move to trading on exchanges or electronic trading platforms was inconsistent and lagged other reforms.

The most advanced jurisdiction across the main policy areas is the United States, which has made significant progress on all fronts and has partly executed the three major changes of central clearing, trading on platforms or exchanges and reporting to trade repositories. As for establishing exchanges, only Indonesia and China, which has fully enforced its rules, are a match for the US. Of the remaining 16 markets listed by the FSB, 13 had taken no action, including the European Union, which is classed as one jurisdiction.

The FSB said: "There appear to be significant differences across jurisdictions in the timing of implementation and regulatory design of the reforms either under way or being contemplated. Three jurisdictions have mandatory trading requirements in place, with other jurisdictions developing or considering whether specific requirements in this area are appropriate for the markets within their jurisdiction."

The glaring gap in the global regulatory picture is the EU, which only reached political agreement on its

Markets in Financial Instruments Directive (MiFID II) in January 2014. The text was ratified by the European Parliament in April and the associated consultation paper and discussion paper were published by the European Securities Markets Authority (ESMA) as this publication went to press, with responses to both papers due by 1 August. The EU, having so far taken no action on exchanges, introduced reporting of OTC and exchange-traded derivatives to trade repositories on 12 February – some 14 months after the US – and is only in the early stages of implementing central clearing.

Rhodri Preece, the CFA Institute's head of capital markets policy for Europe, the Middle East and Africa, says: "We have high-level principles but the detail still needs to be done. The challenge is calibrating correctly and ESMA has got a big job on its hands."

The reform process has been bedevilled by cross-border differences, particularly between the US and the EU – the two biggest derivatives markets. Coordination between markets is crucial for successful global reform. Figures from the Bank for International Settlements show that in the last 15 years at least half of interest rate derivative transactions by volume have been between counterparties in different locations.

The FSB said in its April report that differences between jurisdictions remained a major concern. This was despite agreement in September 2013 by the G20 leaders that "jurisdictions and regulators should be able to defer to each other when it is justified by the quality of their respective regulatory and enforcement regimes, based on similar outcomes, in a non-discriminatory way, paying due respect to home country regulation regimes".

The July 2013 Path Forward agreement between the US and the EU had meant to set the jurisdictions on a road to greater coordination. However, the message of harmony was undermined in November when the Commodity Futures Trading Commission (CFTC) issued a notice on the registration of non-US persons. It implied that if, for instance, a German pension fund executed a swap with a German bank through the bank's New York office solely for timing purposes, both parties would be covered by US clearing rules even though the risks from the transaction arose in Europe.

In February, after its combative former chairman stepped down, the CFTC published a memorandum allowing some European platforms relief from US harmonisation, softening tougher earlier guidance. Jonathan Herbst, a partner at global law firm Norton Rose Fulbright, says it is too easy to accuse the US of dogmatism when Europe has been slow off the mark and has subsequently tried to impose its own standards. "With the change of personnel at the CFTC, when I talk to my American colleagues they think there has been a liberalising element there, but the problem is they don't think there has been much reciprocation from the Europeans," he says. "We are way behind in the process. People in Europe spend a lot of time criticising the US for being extraterritorial, but when you look at EMIR [European Market Infrastructure Regulation] and MiFID, they [themselves] are pretty extraterritorial."

The glaring gap in the global regulatory picture is the European Union

Though the FSB was positive about the prospects for coordination on the posting of margin, Guy Usher, a

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Eric Bystrom, Head of TradeCycle Solutions, Commerzbank

Regulatory requirements have increased the complexity of the day-to-day business of our clients, which has led to operational inefficiencies and increased costs. In response to this, Commerzbank set up Market Services, which has experts covering clearing and execution for OTC and listed derivatives, custody, FX prime brokerage, collateral advisory, portfolio valuation and trade repository reporting. Here, our aim is to help clients formulate a plan for dealing with the totality of the regulatory burden.

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Partnering an investment bank with a global market infrastructure provider is market leading. TradeCycle will provide significant relief to our clients currently navigating through regulatory change, by minimising the ongoing investment and compliance challenge.

partner at European law firm Field Fisher Waterhouse, says there is considerable uncertainty ahead.

"Everyone is now waiting to see the requirements for providing initial margin and variation margin for uncleared trades in Europe. The CFTC, the Securities and Exchange Commission and the prudential regulators in the States will soon require swap dealers to collect margin from everyone (other than from certain commercial end users) and that is a huge implementation challenge for the market if they opt to have it segregated.

"ESMA consulted about how the equivalent EMIR requirements were going to be implemented in the EU and they indicated that every financial counterparty should exchange initial margin with each other. The Basel Committee and IOSCO [International Organization of Securities Commissions] then picked that up and have sought to come up with a unified position for principles across the global regulators. They have managed to achieve a harmonised position but at a minimum standard level that is relatively high."

Colin Lloyd, an associate at global law firm Cleary Gottlieb Steen & Hamilton in New York, says the US and the EU need to establish principles that achieve the objectives of greater transparency and reduced risk without fragmenting the market. He suggests:

- Greater recognition of equivalent foreign trading facilities and CCPs, and intermediated access arrangements to enable cross-border trades;
- Allowing substituted compliance if at least one party to a trade was a non-US person executing their side of the trade from outside the US; and
- Emulating the 2010 data-sharing agreement between the US and the EU for tracking terrorist finance, including security protections and independent monitoring.

Lloyd says: "The CFTC has taken some important steps over the last few months. But a number of additional steps remain, especially in the area of recognising for the swaps markets the types of intermediated access arrangements that have been the foundation of global securities and futures markets for several decades."

Advisers and representatives of market participants acknowledge that the industry should aim to achieve the G20's ambitions, but they say the response to the crisis threatens to miss the G20's original goals and ultimately to overlook the market's core function.

Andrew Rogan, policy director at the British Bankers' Association, says: "The main purpose of derivatives isn't speculative. Manufacturers and exporters use these securities and instruments to manage the risks ... to their businesses and to the real economy."

EMIR: we have lift-off

More than four years after G20 leaders committed to tackling the systemic risks posed by over-the-counter derivatives in the wake of the global credit crisis, the effort has yet to fully deliver on its promise of improved transparency and tighter regulation, says **Paul Godfrey**

Europe, which accounts for as much as €220 trillion ($305 trillion) of the €501 trillion ($693 trillion) global over-the-counter (OTC) derivatives market, is forging ahead with its landmark reform, the European Market Infrastructure Regulation (EMIR), introducing trade reporting in early 2014 and moving on to focus on pushing all standardised contracts through central clearing. However, full implementation is already into a second year beyond the December 2012 deadline set at the G20 summit in Pittsburgh, United States, in 2009.

Central clearing aims to address counterparty credit risk through mutualisation, while reporting seeks to spot the build-up of excessive risk in the financial system. While a start has been made on the first, albeit with some problems, the second remains a distant goal, and central clearing is unlikely to be in place before the first quarter of 2015, analysts say. Meanwhile, cross-border issues such as the margining of uncleared derivatives and the treatment of overseas affiliates remain to be resolved.

On clearing, the European Securities and Markets Authority (ESMA) has until the middle of June to authorise non-European Union/European Economic Area clearing houses that applied for recognition before the September 2013 deadline, during which time they can continue to service EU/EEA clearing members under market terms. Around 40 covering every continent have applied. Recognition is contingent on not only the clearing house meeting the required standards, but also the jurisdiction in which it is located being recognised.

Banks' exposures to EU/EEA-based approved clearing houses are subject to the minimum two per cent risk-weighted capital charge from 15 June (although this date may be extended by six months if the European Commission deems it necessary). But this is set to jump to as high as 50 per cent for exposures to non-EU/EEA houses that failed to gain recognition before that date. Until last summer, EEA banking groups with overseas subsidiaries could avoid this potentially disruptive and costly regulation. But the fourth Capital Requirements Directive (known as CRD IV) extends the rules to banks accessing clearing through local subsidiaries as well as local branches. The exemptions that will be available for these requirements have yet to be worked out.

Existing issues with reporting

The market is already grappling with reporting, hampered by the inability of the new trade repositories to cope with the onslaught of participants trying to register. Meanwhile, regulators are concerned over mismatched data fields, and competing formats for swap identifiers between the US and Europe. The fact that all exchange-traded products must be reported in Europe, in addition to those traded over the counter, is only adding to the logjam.

Tom Riesack, managing principal at business and technology consultancy Capco, observes: "Gauging whether this effort is delivering on its promises depends on what the promise was. If it was transparency, then certainly we are not there yet. If it was lowering systemic risk, then I don't think that's happening either.

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Systemic risk does not disappear because you're clearing the same stuff through one counterparty rather than a number of them. You're just concentrating the same amount of risk in one place. So I'd say only half of it has been achieved, maybe, and even that half has not been delivered yet, as transparency through reporting is still a distant dream."

Riesack points out, however, that parts of the puzzle are falling into place, such as the risk mitigation techniques implemented last year.As market participants adjust to the demands of risk mitigation, reporting and cross-border uncertainty, the challenges of the two most important planks of derivatives reform remain: central clearing and, eventually, mandatory trading on regulated exchanges or electronic platforms, under the Markets in Financial Instruments Directive (MiFID).

When in place, EMIR's centralised clearing model should free up firms to trade with each other without exposing themselves to counterparty risk. Under the timetable for EMIR, clearing houses in the EU/EEA were supposed to be authorised as compliant under the new standards within six months of the 15 September 2013 deadline for applying for approval.

Clearing obligations

But that process is also slipping. With just months until the first clearing obligation is due to start, of the more than 20 EU central counterparties (CCPs) seeking approval, at the time of going to press only a handful – including Eurex, Poland's KDPW, the Netherlands' EuroCCP, and NASDAQ OMX, the Stockholm-based multi-asset clearing house – have been authorised. In the future, EMIR-compliant CCPs will be able to offer increased efficiencies on the initial and variable margins, which counterparties are required to post to cover OTC trades and changes in the price of the contract respectively.

Central clearing is unlikely to be in place before the first quarter of 2015, analysts say

"EMIR is delivering on derivatives reform in some areas and missing the mark in others," says Thomas Donegan, partner at global law firm Shearman & Sterling. "The new conduct-of-business rules have made a difference, with most participants signed up to ISDA [International Swaps and Derivatives Association] protocols on reconciliation and dispute resolution. Also, people are confirming their OTC transactions more quickly than they did before Lehman.

"Similar rules in other parts of the world have resulted in duplication of requirements and documentation. Reporting is in principle a good idea for OTC derivatives because there was a big information gap for regulators before, but the legislative response in Europe has been over the top.

"Requiring that exchange-traded derivatives are reported seems pretty pointless as regulators already had full visibility of what's going on. These trades are already cleared and there's full information on those positions in the clearing house."

This overreaching in EMIR may be partially responsible for temporary logjams at the new trade repositories, Donegan believes. The reporting requirement for exchange trades brings considerably more people and transactions within scope.

"At the same time, many smaller corporates doing over-the-counter FX, interest rate and commodity transactions are still not able to report their side of the transaction. Paradoxically, these are the sorts of transaction that the regulators lack data on and which these measures were originally aimed at covering."

As market participants wrestle with regulation of the post-trade side of the equation, the trading obligation and transparency requirements required to complete the G20 pledge will be dealt with only later, as part of MiFID II. The directive and its accompanying regulation MiFIR, which together aim to extend existing pre- and post-trade transparency rules for equities to derivatives, are creating an additional set of uncertainties, not least over the timeline. The directive is behind schedule, delayed in part by all 28 EU states as well as by the European Parliament, Council and Commission having to be in complete accord. After years of wrangling, agreement on the final text came in January and MEPs rushed through approval in mid April, just days before parliament was dissolved ahead of May's elections. Barring any last-minute opposition in the Council of Ministers, the legislation will become law this summer.

Further delays

Progress is already at least 12 months behind schedule, with implementation, originally planned for the end of next year, now not expected until late 2016. ESMA is currently working out the technical details of the directive with the European Commission, which it expects to complete and publish in a consultation paper before the end of the year, or early in 2015.

But the long and winding path towards implementation could be upset by a changeover year in Strasbourg and Brussels, with the new crop of MEPs taking their seats in July followed by a new Commission in November. Lawmakers ruling that as many EC members as possible should be elected MEPs triggered a slew of election bids that could render the Commission impotent for months. With a diminished, lame-duck executive in Brussels, derivatives reform may once again be relegated to the back-burner. ○

MiFID agreement is only the first step

Although political consensus has been reached over reform of Europe's financial markets, there is much work to be done before the directive takes effect in late 2016, writes **Sean Farrell**

The start of 2014 brought long-awaited political agreement on the European Union's Markets in Financial Instruments Directive II (MiFID II). The directive, agreed in mid January, aims for a complete overhaul of Europe's financial markets as a response to the financial crisis and market developments since MiFID I took effect in 2007.

The original MiFID focused on equity markets and its main aim was to open up competition. MiFID II seeks to build on its predecessor by improving investor protection and implementing commitments made by the G20 to strengthen the transparency and regulation of markets such as over-the-counter (OTC) derivatives.

As Michel Barnier, the European Commissioner with responsibility for MiFID, expressed it in the announcement: "These new rules will improve the way capital markets function to the benefit of the real economy. They are a key step towards establishing a safer, more open and more

SUSAN TRIGG/ISTOCK IMAGES, SIMON BELCHER/ALAMY

responsible financial system and restoring investor confidence in the wake of the financial crisis."

The main provisions that affect the OTC market in derivatives are pre- and post-trade transparency requirements and the establishment of a new trading venue, the so-called organised trading facility (OTF), which trails the introduction of the swap execution facility in the United States.

January's agreement was the culmination of more than two years of highly political negotiations, as different countries sought to impose their views on the text, and the United Kingdom in particular battled to protect its financial services industry.

However, the directive as it stands is broad, and much work remains before it takes effect in late 2016, including the European Commission's drafting of 'level two' measures and the writing of about 100 technical standards by the European Securities and Markets Authority (ESMA). This process began in May 2014 after a full vote in the European Parliament approved the text in April, with responses to consultation papers published at the end of May due by 1 August – ten weeks for the markets to respond to some 860 questions from ESMA.

Waiting for the detail

Jonathan Herbst, a partner at the law firm Norton Rose Fulbright, says: "On strategic decision-making, now we have some certainty, as the text is final. The bad news is that a lot of technical detail is not going to be started until we know what level two looks like. If people come to us and say, 'We have got a two-year IT lag. What do we have to do to prepare for a post-MiFID world?', we have to say we don't really know until we get the detail. It's an evolving implementation. Over the next two years, we will get a whole process of firming up."

MiFID II will extend reporting rules to require near-real-time disclosure of trades

MiFID II will extend reporting rules already in place under the European Market Infrastructure Regulation (EMIR) to require near-real-time disclosure of trades. The rules partly factor in the liquidity profile of different financial instruments, but ESMA will fill in many of the details, including setting thresholds for pre-trade transparency waivers and post-trade volume masking. Getting this 'calibration' right is important, because banks may be reluctant to offer market-making if they have to declare large positions before trading for clients – hence some banks are considering getting out of derivatives trading altogether.

Rosalind Fergusson, manager at Deloitte's EMEA Centre for Regulatory Strategy, says: "ESMA and its predecessors have been looking at this since about 2007. Things have moved on, but it will be very tricky to define it. Regulators will need to strike the right balance between having a transparency regime that gives people valuable information to make investment decisions, but at the same time not having a negative impact on market liquidity."

ESMA will also be responsible for deciding which derivatives are covered by the 'trading obligation' that requires them to be traded on OTFs and exchanges. This involves calculating derivatives that are eligible for clearing and sufficiently liquid, and this will be watched closely by the industry. The rules on OTFs say the venues must match multiple third-party buyers and sellers and also place restrictions on the use of OTF operators' own capital. Dealer capital has traditionally supplied liquidity to many of the instruments that will be traded on OTFs.

Rhodri Preece, the CFA Institute's head of capital markets policy for Europe, the Middle East and Africa, says: "If you allow a bank to use its own capital to trade on a proprietary basis in the OTF there is potentially a conflict of interest, so this will ensure that orders are handled fairly.

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BALINT PORNECZI/BLOOMBERG VIA GETTY IMAGES

The European Securities and Markets Authority in Paris has the contentious task of writing of some 100 technical standards

"The problem with neutrality is: where is the source of liquidity going to come from? There is a provision in the rules that will allow the operator of the OTF to contract with other banks, and there is some recognition that the source of liquidity could be problematical if the venue is purely multilateral."

It may have taken years of political wrangling to come up with January's agreement, but that does not mean the politics is settled. Filling in the details of the high-level rules will be a extremely contentious task for ESMA.

Herbst says: "In level two, there are some very technical, dry areas, but there is also a lot of political detail that has been pushed into level two." He cites position limits on commodity trading – introduced because some EU lawmakers blamed commodity speculation for driving up food prices. "This has caused an enormous stir in the industry. How level two works is going to make all the difference to the way the regime works."

Limits on automatic trading

Another contentious measure is restrictions on automated trading, including high-frequency and algorithmic trades. Firms that carry out automated trading will have to tell regulators about their trading strategies, conduct tests of their systems, and introduce controls to prevent errant trades that create financial shocks. High-frequency traders will also have to provide liquidity continuously throughout a particular period of the trading day.

Preece says: "A lot of the rules are fairly sensible, such as those around creating more system safety and resilience, but we should focus on the safety aspects and not try to restrict high-frequency traders. That is driven by political factors. High-frequency traders are the main source of liquidity in the market, and putting in restrictive rules could, in theory, drive some participants out of the market, which could have some short-term influence on liquidity."

ESMA has its work cut out not only to deal with the sheer volume of measures it is required to complete, but also to get the balance right between sensible measures to increase financial stability and transparency, and heavy-handed rules that constrict the market and drain liquidity.

At the moment, market participants are still in the dark, but there is no doubt that after MiFID II almost nothing in the OTC world will be the same again.

Fiona Syer, director at Deloitte's EMEA Centre for Regulatory Strategy, says: "We expect MiFID II to fundamentally change the landscape of capital markets. Firms have very much got their hands full with EMIR at the moment, especially from a reporting perspective. The end of 2016 may seem a long way away, but firms need a long time to get ready." ○

Counterparty risk: not just an OTC problem

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New charges introduced by regulators to reduce credit losses are increasing the required capital for over-the-counter derivatives trading. However, the jury is still out as to whether the benefits outweigh the costs, writes **David Wigan**

Moves by regulators to increase transparency and reduce risk in the over-the-counter (OTC) derivatives market following the financial crisis has led to a new capital charge on counterparty credit risk and a change of accounting practices that has played havoc with bank earnings statements.

However, as the full consequences of the change in rules play out, it seems that cleared and electronically traded derivatives may also be implicated to a lesser extent, according to analysts.

One of the key rationales for the new charge, called the credit valuation adjustment (CVA), was that, according to the Bank for International Settlements, roughly two thirds of losses attributed to counterparty credit risk were due to CVA losses, with only about a third due to actual defaults.

The advent of the CVA capital charge, formally adopted in Europe through Capital Requirements Directive IV (CRD IV) in June last year, meant that banks were required to set up new desks to price and hedge their counterparty credit risk across their derivative exposures. Corporates, sovereigns and pension funds are exempt.

While CVA helps regulators resolve the problem of identifying credit losses in derivatives, banks found its implementation extremely challenging, with the calculation posing complex mathematical questions and the exposures proving difficult to hedge. In addition, it was discovered that CVA created new market risk. For example, an increase or decrease in the credit quality of a counterparty, evidenced by moves in its credit default swap spread, would change the profit and loss (P&L) on a bank's derivative portfolio against that counterparty. During periods of high market volatility, banks can see their trading books gyrate by hundreds of millions of dollars a day.

"What banks found is that, if they were not trading credit before then, they were now, and in fact they were running an exotic derivatives desk," explains Alexander Sokol, chief executive at New York-based CompatibL Technologies. "From a bank's point of view your counterparties want to charge you for CVA, but determining its size requires a full tally of mutual OTC positions across all desks in both firms and a complex Monte Carlo calculation. To make matters even more complicated, there is no simple way to hedge most of these exposures, which increase the volatility of your P&L."

Occasionally perverse

In assessing the effect of CVA it soon became apparent that not only did counterparty credit spreads have an impact on profits, but so too did the spreads of the bank itself. This led to the emergence of the concept of debt valuation adjustment (DVA), which takes account of changes in its own credit quality. However, the result was occasionally perverse, and as banks recovered from the financial crisis and saw their credit spreads narrow, many were forced to book losses to reflect their improving credit quality. The principle of

bilateral accounting for credit risk found its way into Financial Accounting Standards Board (FASB) 157, which governs derivatives accounting in the United States, and International Financial Reporting Standard (IFRS) 13, and in 2011, HSBC saw DVA boost its reported profits by £2 billion. DVA has its detractors and its supporters among banks, but in recent months it has become significant because of its relationship with a relatively new concept relating to how banks price derivative exposures to take account of various valuation adjustments. That is FVA, or funding valuation adjustment, which is the cost of the bank's funding in respect of derivatives trades. FVA attracted headlines in January this year after JP Morgan said it had recorded a $1.5 billion loss as a result of implementing a framework for funding valuation adjustments into its derivative portfolio.

In excess of Libor

Prior to the financial crisis, the London Interbank Offered Rate (Libor) was routinely used for calculations. However, with bank funding costs habitually in excess of Libor, it is now widely acknowledged that a new approach is needed. JP Morgan explained in an investor presentation that it was persuaded to make the FVA change by an "industry migration". A handful of other large banks, including Barclays, Deutsche Bank and Goldman Sachs, have made a similar change.

FVA is considered by some analysts to be the 'other side of the coin' to DVA, because the value of a bank's own credit risk is already, to some extent, reflected in funding costs. "If your spread widens then intuitively your cost of funding should rise, but if you book it as a DVA benefit, then it's equivalent to holding cash and your funding cost falls," says a CVA consultant based in London. "It's very easy to double count DVA benefit and funding benefit."

This apparent overlap has led some banks, such as ING Bank in the Netherlands, to disavow use of FVA, while Bank of America Merrill Lynch's chief financial officer Bruce Thompson said in January that the industry view of how to account for FVA was "very much evolving" and that the bank continued to evaluate it.

"FVA arises when the bank has an unsecured trade with a counterparty and hedges it, via a secured trade, with a riskless counterparty," says Dmitry Pugachevsky, New York-based head of research at Quantifi. "To cover margin or collateral on the hedge the bank has to borrow cash."

As banks consider how they should approach derivative funding, some have noted that funding costs relate not just to pricing of derivatives, but to a host of other operations, including maintaining hedges, posting collateral on margin calls and paying interest on collateral received. This extension of funding concerns into the collateralised universe was a significant break from the previous assumption that counterparty risk considerations do not apply to collateralised derivatives, or those traded on electronic venues and cleared through central clearing counterparties (CCPs).

Residual credit and gap risk

The conventional view of CCPs is that variation margin, which is passed by the CCP to the other party on a derivative trade, acts as a guarantee, and initial margin, which covers risks such as deteriorating quality of collateral and is retained by the CCP, means that there is no counterparty risk in a CCP. In short, initial margin means clearing members are over-collateralised all the time.

However, that does not mean there is no counterparty risk in a CCP, because there is a chance, albeit a small one, of default. "CCPs are not the end of CVA and its funding costs extensions," says Professor Damiano Brigo, co-head of mathematical finance at Imperial College London.

"We need to consider and analyse initial margin charges across different CCPs, [and] counterparty risk associated with the default of the CCP and of clearing members, and to understand quantitatively the consequences of the lack of coordination among CCPs across different countries and currencies.

However, that does not mean there is no counterparty risk in central clearing counterparties, because there is a chance, albeit a small one, of default

"To consistently price a deal cleared through a CCP, taking into account residual credit risk and gap risk, initial and variation margins, collateral, close-out netting rules, and wrong-way risk, one needs an analytical set of tools similar to the collateralised CVA/DVA/FVA machinery in the OTC market."

In addition, while collateral reduces counterparty risk, it also increases demands on liquidity. The TABB Group estimates that clearing of derivatives will require buy-side firms to deposit around $2 trillion of capital in total.

Still, despite the similarities between the calculations for cleared derivatives and OTC trades, they are not one and the same thing. "No doubt, at some clearing houses, the margin period at risk is virtually zero because they have intra-day margin calls," maintains Kevin Liddy, a senior consultant with London-based Solum Financial Partners. "Those collateral payment needs to be funded, but the difference between that and FVA is that it is not something you can offset in the price of the trade."

An overture to harmony

US and EU financial authorities are progressively implementing market changes to meet the G20 reform agenda and harmonise over-the-counter derivative regulation, writes **Rob Daly**

Patience is a virtue and global over-the-counter (OTC) derivatives market regulators and participants will need to continue practising their virtue for the foreseeable future, because effective rule harmonisation among G20 national and supranational regulators is still on the horizon.

Differences remain between the United States and Europe in terms of the rules in relation to derivatives trading, clearing and reporting. There also remains an inequality of tone, amid a perception that the US has only recently embraced the collaborative spirit envisaged in last July's Path Forward agreement.

Signs of a change of attitude came on 12 February, when the Commodity Futures Trading Commission (CFTC) granted some European trading platforms relief from US registration. The CFTC granted temporary 'no-action' relief to qualified multilateral trading facilities (MTFs) overseen by EU regulators, so they no longer need to register with the commission as swap execution facilities (SEFs) to handle certain swap transactions on behalf of US persons. CFTC staff guidance on 15 November had stated that MTFs must register.

In April, the no-action relief was extended until mid May and at the time of writing further CFTC guidance was still being awaited.

The February agreement seemed to suggest a change in mood music after the departure of previous CFTC chairman Gary Gensler in December. Many of Gensler's

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most controversial initiatives remain in place, including cross-border provisions that have caused consternation among European regulators, but the messaging emanating from the CFTC since the appointment of Mark Wetjen as acting chairman suggests relations may have taken a turn for the better.

Responding to the agreement, Michel Barnier, European Commissioner for internal market and services, said it was an important step in implementing a consistent global approach.

"In particular, this agreement shows how, as G20 commitments move from words to action, regulators can and should work together to ensure that their respective rules interact with each other in the most effective and efficient fashion. This needs to be done without creating regulatory overlaps or loopholes… Today is an important step but far from the final one on the road towards global convergence."

US reform leads the way

US markets in interest rate swaps and credit default swap (CDS) index contracts have already met the G20's 2009 stated goal of electronically trading standardised contracts on exchanges or electronic platforms, clearing those trades via a central counterparty and reporting the transaction to a trade repository.

In the meantime, the European Union is deep in the process of meeting the G20 goals and marked its first regulatory milestone of mandated reporting of derivative trades just a few days before the CFTC required that trading of certain standard liquid contracts start on SEFs.

The next big date on the global regulatory calendar is the G20 summit, which will be held in Brisbane in November, and will mark five years since the Pittsburgh commitment to increase the stability of the financial system, and political leaders are reportedly keen to be able to report significant progress.

However, in the area of derivatives regulation, much work still needs to be done. In March, the OTC Derivatives Regulators Reform Group highlighted several areas where countries must make efforts to harmonise rules, including proposals for margining of uncleared derivatives, treatment of financial institution branches and affiliates for the purposes of cross-border provisions, access to relevant data in trade repositories, and trading of derivatives on organised platforms. The Financial Stability Board (FSB) is expected to report on progress in addressing those issues in September and at the G20 in November.

Gaps in understanding

One of the most challenging and technical areas of focus over the recent period concerns margining of uncleared derivatives, after US and European proposals in 2012 and 2013 revealed sometimes fundamental gaps in regulators' understanding of what is required. For example, while US regulators focused on the collection of margin by dealers, European proposals specified that margin should be paid by all parties to any trade.

In the light of these and other differences, in September the International Organization of Securities Commissions (IOSCO) published a set of international standards for margining of uncleared business, which were closer in their framing to the European approach.

"The international standard was that all financial entities should recover margins, so in that respect it probably more reflected the European approach," says a senior source at IOSCO. "However, we have included a threshold of €50 million of margin, which protects smaller counterparties from having to collect."

Given the closer proximity of these international standards to the European proposals it was perhaps not surprising that European authorities were the first to react, publishing joint draft regulatory technical standards on the risk mitigation of uncleared OTC derivatives on 14 April.

One of the most challenging areas of focus over the recent period concerns margining of uncleared derivatives

While the European draft standards are largely in line with the IOSCO blueprint, however, they are not exactly the same, and they also identified potential concern around its proposals that banks have the option to use internal models for margin calculations in the same way that they can for capital calculations.

While internal models offer banks the opportunity to more accurately reflect their trading book risks for capital purposes, they may also provide grounds for conflict where two parties are attempting to agree appropriate levels of margin on any particular trade, the European consultation says.

Divergences on collateral

The challenges do not end with internal models. The European proposals also diverge from the IOSCO standards in terms of the categories of collateral that are eligible to be paid for margin purposes and the purposes to which margin proceeds may be applied. Whereas IOSCO envisages some limited rehypothecation, under prescribed conditions, the European authorities have proposed that no rehypothecation should be permitted.

The US has yet to respond to IOSCO's September blueprint, but there is manifest potential for difference between the international and European standards. Not surprisingly, IOSCO is in the process of setting up a committee with the Basel Committee on Banking Supervision to monitor developments.

Away from questions of margining, a continuing source of frustration among regulators is the reporting of derivative transactions to trade repositories, which came into force in Europe in February, after the US introduction, which happened at the end of 2012.

Considerable differences remain between approaches in the US and Europe, in such areas as the operational separation of ancillary services, details to be reported to trade repositories, the scope of the collected data (for example, collateral exposures are required to be reported in Europe but not in the US), and the restrictions on foreign authorities' access to trade repository data.

A particular bugbear among market participants is the issue of what in Europe are known as unique trade identifiers (UTIs) and in the US as unique swap identifiers (USIs). The formula for the identifiers is different on the two sides of the Atlantic, leading to consternation among market participants and regulators seeking to build aggregated databases of market activities.

One final area which the OTC Derivatives Regulators Group would like to get resolved ahead of the G20 meeting is the issue of branches and affiliates, after most of the big US banks moved to switch their derivative agreements to 'EMIR entities' in order to get round the US persons rules that would require their European operations to comply with the provisions of Dodd-Frank.

Evidence of the moves was highlighted in December by the International Swaps and Derivatives Association, which noted a drop in swap activity between US and European dealers, a shift widely attributed to reattributions of US institutions rather than any real change in flows.

Some in the markets regard the moves by US banks to be sensible, offering clients a choice as to who they wish to trade with, but regulators are understandably keen to close the loophole sooner rather than later.

In respect of clearing and electronic trading of derivatives, the European Securities Markets Association (ESMA) is still working on which products should be mandated to be cleared. Meanwhile, compulsory trading on organised platforms is not set to be implemented in Europe until 2015. Whether the European regime will eventually look like its US counterpart is a moot point.

Christopher Perkins, global head of OTC clearing at Citi, says: "At best they will be consistent, but never identical because the underlying national laws and bankruptcy codes are different." ○

ASHLEY COOPER/CORBIS

Now that the US has begun mandatory clearing, a deadline for Europe is on the horizon. But firms are concerned about how to respond to the new market structure, says **Galen Stops**

The introduction of mandatory clearing for over-the-counter (OTC) derivatives has been one of the most hotly discussed topics for the industry in recent years. However, with the United States already starting mandatory clearing, one of the big questions in Europe is: when will it actually be introduced?

As the financial services industry is painfully aware, Europe currently lacks a fixed implementation date. In July 2013, the European Securities and Markets Authority (ESMA) estimated a commencement date between 15 June 2014 and 15 July 2015, while the Financial Stability Board (FSB) has suggested a start date of Q3 2014.

Although the majority of European officials claim that mandatory clearing will be introduced this year, most market participants do not expect it to begin until sometime in 2015.

This is not to say that progress is not being made by the market. SwapClear, owned by LCH.Clearnet, says that it is now regularly clearing in excess of $1 trillion per day and that it has more than two million trades outstanding. Nevertheless, there is a broad spectrum of readiness among market participants, and this will have an impact on both the roll-out of mandatory OTC clearing and the final shape of the derivatives market.

Mandatory clearing: first-mover advantage

Clearing decisions

For buy-side firms, the biggest discrepancy in this regard is how operationally prepared for OTC clearing they are. By now, most buy-side firms should understand their clearing obligation under the European Market Infrastructure Regulation (EMIR). However, they still have several decisions to make. If they will be required to clear for some contracts, companies need to decide if they will also clear contracts that are not mandated by the regulation. Once the decision to clear has been made, firms will need to decide whether they will connect directly to the central counterparty (CCP) or whether they will go through a clearing member. If it is the latter, then they need to set up a relationship with a clearing broker and get all the documentation and then the systems in place.

They must also think about what segregation model they will offer clients and what level of segregation they will demand for their own assets. These firms then face

decisions about whether they need to build out their collateral management capabilities, buy something off the shelf or outsource the process.

Although 'buy-side' is something of a blanket term, it certainly seems that most of the firms that would fall into this category are outsourcing their collateral management – at least for when mandatory clearing first begins – to the large custodial banks.

In-house versus outsourcing

The buy-side firms that have decided to do all of their collateral management in-house have done so because they have fewer financial restraints. They also felt that they needed full transparency and to maintain complete control of the process.

Subsequently, it stands to reason that only some of the big buy-side firms are adopting this strategy. If they decide to manage collateral in-house, they can buy an application – such as a protocol or an algorithm – off the shelf and install that, and then backload their capability and build out from that.

In the new centrally cleared model, the effective use of collateral will be an important consideration for firms. The term 'collateral optimisation' is a popular one at the moment, but in reality it can mean a variety of things. For example, it may be optimising the balance-sheet usage if you are a sell-side player; it may be minimising the value of collateral used; or it may be optimisation according to what part of your portfolio you have in a certain liquidity pool.

There is a broad spectrum of readiness for clearing, from both the buy- and sell-side institutions and, as such, market participants should expect a phased-in approach to OTC clearing.

"I'm not seeing an arms race in the move to clearing, and I think there's going to be almost an easing-in rather than a 'big bang'," says James Tomkinson, a specialist in OTC clearing and collateral management at Rule Financial.

In this regard, European firms can look at what happened with mandatory clearing in the US to understand what to expect here.

The category-one firms – a small group of big companies – were able to transition relatively smoothly to central clearing. In category two, there were a few problems with middleware providers, documentation and testing, while firms were also still setting up clearing relationships as the deadline approached.

Also, from an operations perspective, buy-side firms had to establish connectivity to clearing houses, set up legal entity identifiers, and upgrade their trade-management and portfolio-reconciliation systems. But by the time category three was introduced, the clearing providers were even more prepared to help their clients get ready ahead of the mandate.

In Europe, the bigger clearing service providers on the sell-side have been preaching for some time that firms that will be required to clear would be better off starting the process early.

Don't wait and see

The lack of regulatory clarity about both the timeline and the final requirements for mandatory OTC clearing has meant that some firms have been concerned about a first-move disadvantage when it comes to clearing.

Tomkinson, however, argues that there is little to be gained from waiting: "Even if you're exempt from clearing, you'll still find that your pricing will actually alter to reflect the fact that you're exempt. That's because, from a financial point of view, if you don't clear your trade, then your counterparty sell-side player is going to take a balance-sheet hit. In order to compensate for this hit, you're going to get charged in the transaction."

Some firms have been concerned about a first-move disadvantage when it comes to clearing

This means that firms will either have to invest in developing their clearing capabilities, or delay this but pay a higher figure until they are ready to clear.

Although the move towards a centrally cleared model is in many ways revolutionary for the OTC derivatives industry, expect the market to change in a more evolutionary way.

The number of buy-side OTC trades going through CCPs has been ticking up almost weekly for the past year, and this is a trend that is likely to continue – and probably accelerate – as the mandate approaches.

The introduction of central clearing is, of course, not happening in a regulatory vacuum, and financial services firms are also being significantly affected by Basel III and Markets in Financial Instruments Directive II (MiFID II) requirements. The net result of all of these different regulations will be to make operating in the OTC derivatives market more capital intensive than ever.

Avoiding the short-term losses associated with getting all the infrastructural, operational and legal requirements in place for OTC clearing will not provide companies with an advantage in the long term. It may be that firms don't bring everything into clearing on day one of the mandate. But thinking that they can wait and see how the market develops in response to it increasingly seems like a mistake.

There appears to be a growing understanding of this from market participants, and it is likely that those expecting a 'big bang' event when clearing is introduced will be disappointed.

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Credit checks: reducing the risk factor

In the fast-paced world of electronic clearing, errors can easily occur and cause great damage. **Sophie Brodie** looks at the methods being devised to mitigate the growing risks

Swaps and futures clearers in the United States (known as futures commission merchants, or FCMs) now have just 60 seconds to accept or reject a trade for which they could be liable if a participant defaults. In the past, these trades were conducted bilaterally by voice, meaning dealers could assess their counterparty risk directly. The number of participants and dealers was small; they knew each other and organised the elements themselves.

Now, thanks to new regulation, trades are being executed electronically – often anonymously – and cleared centrally. As a result, knowing that trades carried out via swaps execution facilities (SEFs) will clear has become crucial. Failed trades can mean a loss of funds, as well as opportunity. In December 2013, a South Korean futures brokerage was threatened with bankruptcy after a computer error with one of its trades led to a loss of $44 million.

In an effort to mitigate the risk of failure, the Commodity Futures Trading Commission (CFTC) has ruled that the credit lines extended to clients by FCMs must be checked prior to trade. If the market waited until the trade had reached the clearing house before checking it, the delay between execution and failure could be several hours, by which time market conditions could have changed dramatically. Therefore, SEFs now post credit limits on trades being transacted through their own platforms. To ensure clearing certainty, dealers and FCMs also use third-party firms to check credit automatically across the whole marketplace. One way in which firms have chosen to present the information is via a credit 'hub'. This attempts to bring together all the different databases showing the different positions and credit limits. Instead of a participant having to contact their FCM to check their limit, wait for a reply and then contact the SEF, they can go straight to the hub.

New hub services

ICAP's Traiana business has created one such service, CreditLink, that checks credit limits and recalculates risk. Thanks to strong marketing, the company has signed up a significant number of market players and generated some momentum. Markit offers a similar model called Credit Centre. Both companies consider their 'low latency', or lack of delay in getting messages to clients, to be key selling points.

European-based rival TradingScreen claims that its model offers a quicker service and is more robust as it operates via a cloud, which means that it is accessible from anywhere in the event of a breakdown in one part of the world. Philippe Buhannic, chief executive of TradingScreen, says: "We have approached this problem from a different perspective. We are a global business, but concentrate on 'the last mile'. As well as

being able to push messages about credit limits around the world, we also have an infrastructure that allows clients to stop the trades if there is a problem."

With the hub model, it is up to the market participant to cancel the trade if they receive a message that a credit limit has been, or is close to being, breached. Buhannic claims to offer more sophisticated risk assessment at different levels, giving the client greater control over their money. All three providers have to 'map' data across myriad buy-side, sell-side and clearing-house accounts, so that limits are correctly calculated. Accounts on different systems have different codes, complicating the situation even further.

These models resolve some of the issues caused by the move to electronically traded swaps. All three claim that clients have signed up to their system because "it works". Certainly, third-party hubs spare participants the trouble of connecting to every SEF to see credit limits. This constitutes a considerable saving at a time when swaps businesses must absorb significant extra technological cost, hold more collateral and fight to retain revenues.

Every second counts

Initially, take-up of the new technology was slow. Henry Hunter, global head of derivatives processing at Markit, says: "These things are never as 'big bang' as you'd like them to be. But people come on board over time."

Some clearing members, however, aware of tight regulatory deadlines, rushed to connect directly to SEFs to 'ping' messages back and forth or 'push' client limits to each trading venue. Limits can change frequently in volatile markets, so it is important to have them as close to the source as possible. While the hub model brings all information into one place, it takes a few seconds to send alert messages back to clients. Even in this short period, markets can move. This is especially problematic if trades are then rejected.

According to Nick Solinger, head of product strategy and chief marketing officer at Traiana, if a trade breaks due to technical error, you can 'cancel and replace' it on the same terms. But the CFTC has ruled that if it fails because an FCM's limit at the clearing house has been breached, the trade is 'void ab initio', ie it never existed. Because credit limits can now be checked in seconds, it has also said there is no longer a need for compensation agreements between parties. Indeed, as long as the trade does not breach imposed limits, it should be accepted

Who bears the risk?

Confusion remains, however, as to who might be liable if it is wrongly waved through and fails to clear. Many SEF rulebooks say that banks that register with them are required to stand behind executed trades. Dealers are understandably unhappy about this, arguing that no one would back potentially limitless losses.

One suggestion is that the executing broker should bear the risk of the trade until it reaches the clearing member. Until the situation crystallises, however, firms could find themselves the object of litigation from those unwilling to bear the losses of failed trades. A recent survey by the International Swaps and Derivatives Association found that European dealers were increasingly trading swaps among themselves, rather than with US firms via SEFs, in order to avoid CFTC rules altogether. However, similar regulation is shortly to be implemented in the European Union.

Another issue is that, due to frailties in market infrastructure, all trades on SEFs have to be effectively

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Michael Davie, Chief Executive Officer, LCH.Clearnet Ltd

The Dodd-Frank act and equivalent reforms in Europe are among the most material challenges facing the industry. In the US market in particular, it quickly became obvious that the greatest advantages [in respect of central clearing] were with the clients that were most prepared. While more than 1,000 buy-side institutions are now using our swaps clearing service, many early adopters were driven just as much by the standardisation, safety and security that centralised clearing brings as by regulatory forces.

Throughout this transition to client clearing, there has been a focus on notional volumes cleared in the swaps market. While we are proud of our 85% market share, LCH.Clearnet's priority is to help members and clients better manage their risk and capital exposure. For this reason, we are focused intently on enhancing our post-trade services as we seek ways to improve efficiency and flexibility. Success for a clearing house in the future will be measured less by notional cleared but by efficiencies delivered to the marketplace. Compression is a great example of this, as is portfolio margining. Compression reduces the number of line items and operational overhead. It also optimises the use of scarce bank capital for the sell side. Likewise, in portfolio margining, participants can take advantage of netting opportunities to reduce their margin requirements.

There has never been a more exciting time to work at a clearing house. LCH.Clearnet operates an open access model, clearing for numerous exchanges across a broad range of asset classes. We firmly believe that this is the optimal operating model to respond to regulatory change, bringing risk-management best practice and capital efficiency to an unparalleled range of market participants.

Looking forward, we see clearing extending across products and geographies. We hope for greater harmonisation across regulatory regimes and expect even greater efficiencies to be enjoyed by market participants. This is clearly good for the markets we serve, which are already exhibiting resilience and ingenuity in adapting to these new challenges.

considered 'risk additive', meaning that hedged orders cannot be netted off until they have been filled, ie post execution. According to John Wilson, global head of OTC clearing at Newedge, this requires FCMs as guarantor to hold perhaps several times as much capital as they might actually need in order to give clients very large limits. (Large limits are also needed because the ratio of orders to actual executions is sometimes very big.) This has an impact on liquidity, especially for high-frequency trading, and could highlight conflicts where FCMs are dealing for themselves and clearing for other parties.

The delay between execution and failure could be hours, by which time market conditions could have changed dramatically

Need to adapt

In a fast-moving environment in which complex regulations have yet to bed down, it is likely that pre-trade checking services will need to keep adapting, becoming ever quicker and more complex. Steven Mahoney, global head of OTC clearing at Credit Suisse, says: "If you compare what happened in the equity market, over time you would expect speed to win out."

However, no single solution is likely to dominate for long. As with exchanges and SEFs, there could be consolidation, but there will always be competition. Wilson says: "It is like cars – it depends on what you want."

Having more than one provider also lessens the risk of failure being concentrated in a single place. If one credit hub goes offline, for example, others could still keep checking limits. Some FCMs have signed up with two credit-checking facilities, while also carrying out their own checks internally where possible.

One banker says: "The methodologies used by SEFs and hubs fall below the sophistication we expect, and we would like to see some improvement."

As more swaps are traded electronically and orders sliced up to mitigate market impact, the need for cutting-edge solutions is only likely to increase.

A shot in the dark

Changes to the clearing environment mean that some buy-side players may be left struggling to stay in the game, writes **Gavin O'Toole**. Clients need to consider a variety of factors in order to secure the best service

STEVEN E. SUTTON/CORBIS

Derivatives players in Europe may be forgiven for likening the establishment of a new clearing regime to an attempt to position the net in a tennis match being played in the dark. While in theory clearing is aimed at creating a more predictable game, waiting for the umpires to finally switch on the lights has made aiming the ball somewhat frustrating. The protracted effort to put in place the critical centrepiece of safer systems remains unfinished, but new players are lining up on the sidelines for their turn on court.

Much has been written about the authorisation of central counterparties (CCPs) by European authorities having taken longer than expected. Seven months after the deadline by which CCPs had to apply for authorisation (September 2013), only four of them had been authorised. Given that mandatory clearing can start no sooner than nine months after authorisation, but as much as 15 months later, on a CCP-by-CCP basis, this is likely to be a long, drawn-out process. If last year's precedent is followed, this could put buy-side firms at the back of that process.

Vincent Dessard, senior regulatory policy adviser at the European Fund and Asset Management Association, says: "In Europe, we are still at the level of defining what should be cleared. Our main question at this stage is definitely: please tell us what is going to be in there, what details you will require to organise the instrument to be cleared, and the data that you will request from the regulatory perspective, but also from the CCPs."

Delays putting the regulations in place could mean European derivatives users being forced to clear more than two years after their United States counterparts – and having to comply with Dodd-Frank in the meantime.

Pre-regulation clearing

Richard Metcalfe, director of regulatory affairs at the Investment Management Association (IMA), says: "There hasn't been a huge amount of buy-side clearing in Europe, or indeed anywhere else, before the regulatory obligation kicks in, although I think it was noticeable that, in the US, one or two of the bigger buy-side firms were in fact going ahead with clearing, even though they weren't at that point subject to a regulatory requirement."

Europe's tardiness, owing to the complex politics of rulemaking, has stoked fears that multiple CCP authorisations happening at once will strain clearing members' preparations. Inevitably, the US experience has illustrated the headaches that the buy side can expect. If there is an obvious lesson to be learnt, it is that a phased approach enabled the transition to go smoothly: the largest derivatives users began clearing in March, hedge funds in June and smaller entities in September.

The key implication of reform is its potential for prompting buy-side firms to revisit long-standing clearing relationships, and there is obvious scope for rationalisation. Buy-side firms are unlikely to join over-the-counter (OTC) clearing houses directly because of cost and technology

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demands – a potential headache when it comes to onboarding. Dessard says: "Smaller businesses are maybe in a more difficult position, but from the information that we have on clearing and also on settlement perspectives, the questions are the same for every financial institution – it's not a buy-side-only question. There is no reluctance or blocking position from the buy-side at all; it's just a question of resources, both technically and in terms of manpower."

So indirect clearing is likely to be the only game in town, and key operational challenges must be faced if this is to work. Value for money and pricing are priority considerations, but fee models are evolving and, while some users choose CCPs primarily on visible costs, there are also invisible ones. The reforms have obvious implications for collateral and, although cross-margining will lower the amount of initial margin required, comprehensive solutions will take time to emerge.

Reform will prompt buy-side firms to revisit long-standing relationships – and there is obvious scope for rationalisation

Clarity on segregation

A nagging problem has been the lack of detail about segregation. The US permits only one client-asset protection model for CCPs, allowing clearing members to operate a single account for collateral. In Europe, clearing houses must offer at least two: one mingling customer assets, the omnibus segregated account (OSA), which is cheaper but potentially riskier; and another fully segregated account, the individual segregated account (ISA) favoured by the Committee on Payment and Settlement Systems/International Organization of Securities Commissions as clearly identifiable and easier to port.

Metcalfe says: "As an overlay on that, as a fund manager you have a duty to the funds who are the actual counterparties – you are their agent. It depends on how much business you do, but you may feel obliged morally, and as good business practice, to have more than one clearing member servicing those clients – particularly if the counterparty exposure is treated as being towards the clearing member, rather than directly towards the CCP itself, because otherwise you could build up exposures very quickly and that's going to start to become a concentration of risk. So it's not just a question of choosing any one clearing broker, it's a question of pulling together a panel."

Alongside issues of the portability of accounts, concerns have been raised about the ability of clearing houses to withstand market shocks and defaults. The European Securities and Markets Authority's 'frontloading' or retrospective clearing requirement is causing a pricing nightmare, and there is uncertainty surrounding details of the exemption for pension funds.

US progress along the path of reform has also exacerbated extraterritoriality concerns, and is making European asset managers cautious about cross-border business. Together, these issues raise the stakes when it comes to choosing a clearing broker or CCP.

John Wilson, global head of OTC clearing at Newedge, outlines what customers should take into consideration – beginning with fees, which tend to be a trivial, if visible, part of the equation. "Bear in mind that the cheapest isn't always the most sensible option, and ensure you are comparing the total costs, not just the headline numbers," he says.

Another consideration is credit rating and capital position which, in theory, favours larger firms, but with segregation protections in place becomes much less of a factor. Also, does a broker offer cross-product expertise and demonstrate that it can service different types of products? "You want your provider to be able to spell OTC," Wilson points out.

Clients need to consider which CCPs a clearing firm covers against their desired CCPs – it may not be a good idea to go to a firm offering only a single CCP. They need to examine the collateral arrangements – policies on intra-day margining, segregation, pledging and haircuts – and what they do with your collateral. They also need to compare the broker's margining with the CCP's mandatory requirement. Wilson lists some more practical indicators of quality of service that a customer should bear in mind, such as reporting facilities, opening hours, and whether a broker's service centres provide global coverage.

It's a good idea to reflect on the advantages of an existing relationship with a clearing provider, as well as whether clearing is the core competence of the firm, or simply a bolt-on that may not endure, noting recent high-profile exits from OTC clearing. "Are these people setting the agenda, coming up with innovative ideas to advance the industry," Wilson adds, "or are they hapless followers and way behind? If you've got a firm that's thinking up innovative solutions, then you might be with a firm that's got some great ideas for you as well."

But while scepticism about the ability of the umpires to position the net correctly persists, some players are already serving aces rather than relying on help from the sell side. In November, Newedge and European asset manager Aquila Capital cleared OTC interest rate swaps at LCH.Clearnet's SwapClear, using Newedge's membership. In December, NASDAQ OMX Clearing cleared its first buy-side client interest rate swap between SEB and Nektar.

Nonetheless, pioneers aside, many of those lining up to join the game will wait for the net to be positioned and the lights to be switched on before strolling onto the court. ○

Mind the gap

To increase efficiency in a changing market, organisations will have to optimise their collateral and keep a close eye on their margins, writes **Solomon Teague**

Several different rules have been introduced around the world that have implications for the collateral that traders must post on their positions and for clearing, with Dodd-Frank in the United States and CRD4 in Europe among the most important.

Rule changes have forced institutional traders to look at how they manage their cash and collateral positions and find efficiencies. "Many organisations have got used to thinking about things in terms of silos, and this has definitely been the case in terms of how they post collateral," says Ben Larah, manager, Sapient Global Markets. "Now you see more of them using optimisation software to identify pockets of cash that are not being used efficiently."

"There is going to be a big emphasis on margin optimisation over the next 12-18 months," says Steve Woodyatt, chief executive and chairman at Object Trading. The clearing of over-the-counter (OTC) derivatives removes a key difference between them and exchange-traded contracts, and moves a step closer towards a more level playing field that would increase efficiency for both the buy side and sell side, he says.

According to the Depository Trust and Clearing Corporation (DTCC) white paper 'Trends, Risks and Opportunities in Collateral Management', "[a] number of drivers are expected to dramatically increase margin-call activity in the near future, and this will likely have a significant impact on liquidity and risk. Discussions with participants in the OTC derivatives markets indicate that this activity could jump 500-1,000 per cent."

It cites sources as reputable as the Bank of England, the International Swaps and Derivatives Association and the Bank for International Settlements, which estimate that new rules could push up collateral requirements to $800 billion, $10 trillion and $4 trillion, respectively.

While at a glance this looks as if it could create a shortage of assets to be used as collateral, a study by Accenture and Clearstream found that as much as 15 per cent of the collateral available to financial institutions is not being properly utilised, costing the industry more than €4 billion ($5.5 billion). "Many firms are not optimising their collateral, which could create a gap between supply and demand," finds the DTCC.

The headline impact for the buy side is an increased cost of hedging that is sure to erode returns for fund managers, although it is hard to predict the scale. Around three times more collateral is needed against an OTC position than for an equivalent exchange-traded product, says Dan Marcus, global head of strategy and business development at Tradition.

The justification for this is the longer expected close-out period associated with OTC derivatives. Exchange-traded contracts are by definition more liquid and therefore will usually require less time to close.

The big squeeze

But the increased costs don't end there. "People talk about the explicit costs of OTC margin requirements, but there is an implicit cost from wider bid/ask spreads too," says Mas Nakachi, chief executive of OpenGamma. "The real possibility of significantly reduced liquidity is a worry for the buy side, which could add as much cost as the additional margin requirements themselves."

These extra costs are particularly unwelcome at a time when returns are already being squeezed by tough market conditions. In 2013, "FICC [fixed-income commodities currency] revenues overall [were] down around 20 per cent, while rates trading specifically within

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FICC [were] down around 40 per cent," says Nakachi, citing figures from the consultancy Coalition.

It certainly wasn't the regulators' intention to make life more difficult for smaller institutions and thereby exacerbate the problem of concentration among the 'too big to fail' institutions. Yet there is already evidence this is happening, as the added cost of trading invariably weighs heaviest on those with the least capital.

Some observers question the assumptions underlying the case for higher margins for OTC. The difference in margin costs between OTC and exchange-traded derivatives, they suggest, may be considerably higher than the difference it would take to actually close out the deal. For example, the initial margin for CME deliverable swap futures is calculated under a one-day time horizon, while for LCH-cleared swaps a five-day horizon is used if you are a direct clearing member, or seven days if you are an indirect clearing member working through a third party.

The question is whether a market-wide rise in unhedged or poorly hedged portfolios in itself increases systemic risk

The broader concern is about 'the futurisation of swaps'; that increased collateral requirement for OTC positions may dissuade traders from using such contracts, leaving their portfolios imperfectly hedged. The added cost of OTC hedges is likely to affect fixed-income investors the most, with bonds having such a variety of coupons and maturities that standardised derivatives are unlikely to hedge exactly.

The question is whether a market-wide rise in unhedged or poorly hedged portfolios in itself increases systemic risk – it is a question that divides opinion. Some see in this the seeds of the next crisis, while others dismiss this view as scaremongering, insisting that a few basis points off returns is a small price to pay for the added security of centrally cleared derivatives.

Haircut and a fee

Fund managers will also find themselves using different types of assets as collateral, says John Straley, vice president of strategy and business development at DTCC and co-author of its report. Equities and corporate bonds, typically used in the past, will not be acceptable to CCPs. Instead, managers will need to control larger cash components in their portfolios than previously.

Some traders are making use of collateral transformation services, whereby lower-quality collateral such as corporate bonds are posted to borrow higher-quality collateral for a haircut and a fee, though this can be an expensive approach and demand is said to be limited.

Collateral requirements may encourage longer-term positions to be funded with shorter-term assets, creating a mismatch reminiscent of the problems that arose at the height of the financial crisis. Because the buy side and 'real money' accounts may not have spare cash available for posting margins, they will instead have to post assets they would otherwise be trading.

"Organisations will need to come to their own conclusions about what they want to hedge and how," says Larah. "They will need to conduct their own analysis of market risk, and model the correlations between the hedges and the underlying asset to determine whether the cost of an imperfect hedge is more attractive than the cost of execution for an OTC hedge. It will differ for each institution and for each portfolio."

In fact, argues Woodyatt, OTC and exchange-traded derivatives are not that dissimilar and more can be done to bring them closer together. "People look at OTC and exchange traded as completely different; institutions tend to look at things in terms of silos, but we would turn that on its head," he says. "Looking at things that way leads to a lot of duplication of efforts, a lot of inefficiency, especially on the sell side. Being forced to think about them together can help them reduce costs."

Scope for cross-margining

On the exchanges' side, institutions are already looking at how they can bring together asset classes onto one trading platform to increase the scope for cross-margining between products. The IntercontinentalExchange/NYSE Euronext merger, for example, brought multiple asset classes under a unified clearing mechanism to increase capital efficiencies for customers, notes Woodyatt.

The problem is it is very difficult for OTC contracts to be compared with exchange traded on a like-for-like basis in terms of their risk profiles. The mechanics behind such deals are very different, with regard to credit checks, for example. So, managing collateral efficiently in the era of cleared OTCs is largely a question of ensuring the right systems are in place to allow a meaningful comparison of the costs and risks associated with each option. "This is not about regulation or compliance; it is about business and maximising efficiency," reasons Woodyatt.

However, this logistical problem of ensuring the systems are in place to manage the new arrangements is a headache in itself. It has traditionally been relatively simple to manage collateral arrangements, posting the necessary amount with the dealer that can then manage it on their behalf. Under the new regulatory arrangements, fund managers will be required to move collateral back and forth more actively, says Straley.

"With the move to clearing or reduction in thresholds, fund managers will be forced to adjust from dealing with a

Sandy Broderick, Chief Executive, DTCC Deriv/SERV

DTCC went live with its European derivatives repository in February to facilitate mandatory trade reporting across all OTC and exchange-traded derivatives products.

Our Global Trade Repository (GTR) is now operational in the US, Europe, Hong Kong, Japan, Singapore and Australia. Our European repository has been a much bigger enterprise to roll out due to the larger and more diverse collection of clients.

Clients in the US and Asia were predominantly from the sell side, but, in Europe, penetration also includes smaller sell-side institutions, the buy side and a large number of corporates.

We are the only trade repository present in all jurisdictions that currently require mandatory trade reporting. Due to our global reach and our user community, we've been able to set up more than 40,000 client accounts, meaning we have a very significant percentage of total derivatives volumes.

As regards next steps, we are moving to a stage where regulators need to interpret the data from the trade repositories and use that information to identify the build-up of risk in the system. However, to do that, a system of global reporting standards must be agreed upon. This is an evolving process and we as an industry are working to standardise the data between the trade repositories, which is a prerequisite for the reconciliation process.

Beyond that, for data to be used to identify the build-up of systemic risk, it needs to be aggregated on a global basis. While trade repositories can perform this function in time, regulators need to define the objectives of data aggregation, identify what data is needed from a global perspective – both collateral and transaction data – and outline how that information will be used.

As an industry, we are all committed to working together to address these global challenges. We are actively engaging with all parties to reach an industry-wide solution that is able to meet the regulatory mandate of reducing systemic risk.

margin call a month to potentially once a day over the life of an individual transaction," he maintains.

Managers will also be dealing with multiple CCPs and futures commission merchants, each with their own collateral requirements. Custodians, administrators, prime brokers and others all need to be kept in the loop, adding considerable complexity to arrangements for the segregation of collateral held at various institutions. These arrangements have already been cast into the spotlight since the collapse of Lehman Brothers.

"With new clearing requirements for OTC derivatives transactions, credit support annexes, which have historically covered an entire portfolio of deals with one margin call, now may exclude products offered by different clearing houses," says the DTCC.

"This may drive individual daily or even intraday margin calls for each clearing house."

Straley adds: "The majority of investment managers do not currently have the operational capabilities to manage collateral on a real-time basis – nor process margin easily in the way that will be necessary."

The answer, as DTCC's white paper concluded, will be investment in collateral processing solutions, either outsourced or bought in from technology vendors or service providers, portfolio reconciliation tools or calculation engines, designed to optimise collateral arrangements.

It may also drive shifts in appetite for certain types of security, a trend that has already been in evidence with the growth in hybrid global swap futures. These contracts are currently traded on the CME, but other exchanges are reportedly looking to launch or develop similar structures. These types of products may offer the best solution for exchange-traded and cleared products that hedge portfolios at a good price; volumes on the CME have been better than many anticipated.

Overall, the argument that regulatory changes are likely to kill the OTC industry looks overblown. "It isn't clear yet what the impact of clearing OTC trades will be on volumes," says Woodyatt. "But if you look at the FX market, people questioned whether the growth of FX futures would lead to the decline of cash FX. But in fact it was the opposite: we have seen growth in both types of FX contract."

He suggests the same might happen here. "The rules will certainly increase volumes for exchange-traded derivatives, but it may also encourage new players to come into the OTC market, so it could lead to growth on both sides." ○

Absorbing the cost of clearing

The higher costs involved in the clearing of over-the-counter derivatives may push some banking industry players to move out of the market. **Rob Hartley** investigates

The derivatives industry found itself in the eye of the storm when the financial crisis rocked the global economy in 2008. The perception that derivatives either were partly to blame for the crisis, or exacerbated the situation, was widespread, and put the industry firmly in the sights of lawmakers. One of the main demands made by politicians of all sides was that over-the-counter (OTC) derivatives should in future be centrally cleared on the basis that this would reduce risk and prevent a repeat of the crisis.

As a consequence of regulatory change, on both sides of the Atlantic, pushing towards mandatory clearing, the process of clearing as a commercial enterprise is an issue occupying some in the banking industry. A source at a major global bank believes the economies of the function are vital to how the industry views it.

"Clearing derivatives for clients is by nature a business," he says. "In order for it to work, it must be economic in nature. It needs to function as a business. If it is not an economically viable endeavour, if some client is going down and you try to move those positions to me, there's no way I'm going to touch them. Those are the things we are thinking about. People are going to have to think about the costs going forward… there are some really interesting nuances to the flavour of regulation."

The cost of clearing OTC derivatives has been a cause of concern for end users, and some may be at risk of struggling to find the funds to post as initial and variation

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margin. The source believes that high costs could be a particular problem for small users, who have difficulty accessing cleared OTC markets because they can't fit into the business model of clearers.

"They could leverage tools in the futures market, look at cash alternatives, or not hedge," he goes on. "There may be a period of time when they could arbitrage certain jurisdictions where clearing is not mandatory. It's hard to shop around geographies… but they could potentially transact in a product not subject to clearing."

The clients are likely to be joined by the banks in assessing the costs of carrying out clearing. They too may have to make tough decisions about who to deal with under the new legislation.

The source believes that banks are likely to put in place specific barriers to entry for clearing, in order to cope with the potential for them to lose money on some client accounts.

"What banks do is they look at the cost of clearing… and it's clear that setting up accounts costs money," he says. "What I expect to see is firms establishing minimum requirements to be on the platform. So you're expected to pay 'x' amount as a minimum to be on our platform. That's one way we're hearing some firms are tackling that issue."

Swaps versus futures

The new costs of clearing OTC derivatives could push some to consider using the exchange-traded futures market instead, where the cost of doing business may be more attractive for them. According to a second source, who works closely with the derivatives industry, the emphasis may already be shifting towards the exchange-traded arena. "It's always been a choice, depending on how standardised your hedging needs are," he says. "Futures could look very attractive as an alternative. I think things have tilted a little in the balance of futures.

"[If] the needs of the buy side in hedging their positions… can be adequately served at a cost-effective price through futures, then I suspect they will look very seriously at using futures. But if they can't hedge themselves, they could leave themselves unhedged or look at OTC products. People do realise that the percentage of trades done in the traditional OTC way will be less than in the past. One could extrapolate from that that there might be implications in terms of how much resource will be committed to that."

But end users thinking about switching from OTC derivatives to exchange-traded futures believe that the complexities and issues involved in the process could be just as onerous, the source warns.

"While the perception is that the futures world is 'simpler', in this transition period people are finding in some respects that it is more complicated," he says. "When you shift to a futures world… you are going to have to think about FCMs [futures commission merchants] and where you are going to clear trades. You may find yourself dealing with just as many FCMs and clearing houses globally as you did in the past. The notion that it is somehow simpler is debatable."

As the new balance of power in the derivatives industry slowly unfolds, the established exchanges are one group that could benefit heavily from the changes in legislation, by attracting former OTC business onto their platforms. "I think the exchanges view it as a business opportunity," says the second source. "If you figure out where the fulcrum will be, it's going to be a different point in the spectrum between OTC and futures, so I suspect they see it as an opportunity for business coming their way."

> As the new balance of power unfolds, the established exchanges could benefit heavily from the changes in legislation

And the prospect of large swathes of business heading onto exchanges in the new post-crisis environment may also affect the composition of staffing in some institutions, according to one lawyer working closely with the derivatives industry.

"The type of people employed at the banks will change," he says. "Within an institution, there will have been hundreds of people negotiating bilateral swaps… that becomes an obsolete business, as if it goes on exchange, you just have a trader doing it electronically. That's a big market change."

In conclusion, the costs of clearing are providing dilemmas for both buy side and sell side, as everyone attempts to get to grips with the economics of the process. And this concern over how the clearing process may affect the bottom line could potentially drive some end users from the traditional OTC business into an on-exchange alternative.

Breathing space

The dislocation in timing between different regulators in different regions rolling out new rules has meant global businesses have seen a gradual change in requirements throughout their various markets.

This may give market participants some breathing space in certain areas, but there is no doubt that the industry will have to face up to a new reality not long into the future.

And once this new landscape has been shaped, the question for those involved in the derivatives industry will no longer be when things will change, but who will best adapt to survive.

Sixty seconds to comply

With clearing brokers on the hook for failed US swap trades, is certainty of clearing a myth? **David Rothnie** weighs up the evidence

Amid the blizzard of Commodity Futures Trading Commission (CFTC) regulation that has turned the world of derivatives upside down, rule 1.73 in particular stands out for the level of consternation it has caused market participants.

Announced in October 2012, the rule requires that swap deals pass credit tests before they are executed, placing the onus on dealers, swap execution facilities (SEFs) and futures commodities merchants to provide certainty of clearing within 60 seconds of a trade being struck.

The rule most affects dealers that do not self-clear but are indirect members of central clearing counterparties (CCPs) via a future commodities merchant (FCM). It states that the clearing broker or client must provide certainty of clearing prior to execution. This has triggered a furore in the dealer community. From the point of view of the clearing broker (dealer), the consequence of swap transactions having to be approved by the broker prior to execution on an SEF is that they now have a legal obligation to settle a trade. This arrangement places the swaps market at odds with the clearing structure in other markets such as futures and options, where the onus is on the executing broker to guarantee the trade.

Rule 1.73 concentrates the risk management of swaps clearing with the clearing broker rather than the clearing house. This means that if the broker's client goes bankrupt, or has made an error, then the broker is liable. If the clearing house opts not to settle the trade, the transaction will be void. The head of over-the-counter (OTC) clearing at one firm points out: "The liability lies with the clearing broker. For the SEF, it is zero; for the

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clearing house, it is zero; and for the counterparties, it is contingent on whether the trade clears." It is the responsibility of the clearing broker to credit-check the counterparties and set limits on clients. However, this too is flawed, because clearing limits are often based on the clients' importance, size and portfolio, meaning that the broker will be exposed to the clearing limit. "A limit sounds like a positive restriction, but it could be massive," explains one dealer.

Anonymous counterparties

The need to credit-check counterparties is a consequence of the seismic shift from voice-based OTC swaps trading to the new paradigm of mandatory clearing and execution in near real time that has accelerated the adoption of electronic trading. Swaps are, by definition, bespoke products and, under the previous OTC regime, were at the heart of relationship banking. Swap deals were based on strong relationships between dealers and clients, and loose bilateral rules regarding posting collateral. As a result of this shift, buy-side participants are increasingly dealing with anonymous counterparties online, thereby creating the need for credit checking.

Pre-trade credit checks are revolutionary, as previously the activity was conducted post trade, and trades were cancelled after the trade was agreed if there was a problem. With pre-trade credit checks, the trade either does not happen or goes through automatically.

With SEF trading now live in the United States, market players are having to grapple with the brave new world of pre-trade credit checking. "The whole issue of pre-trade credit checks and certainty of clearing is extremely complex and expensive to implement," says Matt Woodhams, head of e-trading for Europe, the Middle East and Africa at GFI, an intermediary in the global OTC and listed markets. "At present, all parties are proceeding on a 'best efforts' basis, but there are lessons to learn."

'Best efforts' sums up the industry's response to rule 1.73 as it casts around for a solution. That led to the emergence of three distinct approaches. First, the SEF, the clearing house or the FCM can send or 'ping' messages to each other to check customer limits. Another approach is for the FCM to 'push' a daily file to the SEF, which details specific credit limits, while the third is the creation of a centralised hub.

This third solution emerged when market participants worked with two third-party vendors – ICAP's Traiana and Markit – to adapt their existing post-trade solutions and create a centralised hub with which dealers could interact to post order limits and guarantee clearing with the CCP. The attraction of this option is that a bank would only have to check with one credit hub that links to all the SEFs, rather than creating separate links to each of the 18 SEFs currently in operation.

However, with the onus on clearing brokers to accept liability, it is no surprise that they favour retaining full and complete control of trade risk management in-house, rather than outsourcing it to a third-party vendor that bears no liability. "The bottom line is that the clearing house does not guarantee the trade; it's down to the clearing broker, but their role

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happens pre-trade," explains another dealer, voicing the concern within the market. "In other words, there is no such thing as clearing certainty, only clearing liability."

The two hubs are locked in a land grab for supremacy and, so far, Traiana appears to be winning, saying that it has signed up 15 dealers – including JPMorgan, Bank of America, Merrill Lynch, Citigroup, Barclays and Goldman Sachs – to its CreditLink offering. The hub offers clearing and buy-side firms the ability to manage trading and clearing limits in real time for interest rate, credit and foreign exchange swaps. Firms are able to screen orders to trade swaps prior to execution in low latency, providing greater certainty of clearing acceptance at the time of execution.

The CreditLink product suite also includes the 'kill-switch' functionality that allows prime brokers to modify credit lines and cut off counterparties if certain pre-set credit limits are breached.

Last March, MarkitSERV – which has an electronic trade-processing service for OTC derivative transactions – launched its rival offering, Credit Centre. It is designed to function in support of any type of electronic execution: request for quote, request for stream and central limit order book. However, one market participant adds: "Signing up FCMs and SEFs is no indicator that they are actually using the hubs when it comes to swap-trading activity. Limit hubs are not a solution."

'Best efforts' sums up the industry's response to rule 1.73

Dealers in Europe are watching developments with interest, but with similar levels of uncertainty. In Europe, Markets in Financial Instruments Review (MiFIR) article 25 makes no mention of pre-trade credit checks, and says: "The operator of a regulated market shall ensure that all transactions in derivatives that are concluded on that regulated market are cleared by a CCP."

This guidance may change and be tightened up, and MiFIR still has to follow a convoluted path until its introduction in January 2017, but dealers are hoping that common sense will prevail. After approval by the European Parliament in April, the legislative texts have been adopted by the European Securities and Markets Authority, which now has 30 months to implement the final rules. "From the current tone of article 25, Europe is likely to take a more pragmatic view on the issue of certainty of clearing," says Woodhams. "It looks unlikely that it will follow the same path as the CFTC and rule 1.73 because there have been a lot of lessons to learn from the US implementation."

Last year, the Securities and Exchange Commission (SEC) finalised its market access rule, which deems that, for the markets it regulates, clearing or executing brokers retain sole and exclusive control for risk management. This is at odds with the CFTC, which allows dealers to outsource to limit hubs. One dealer adds: "So in other words, what the CFTC allows is deemed illegal by the SEC." ○

Managing risk

WAVEBREAK MEDIA LTD/ALAMY, PADDY MCGUINNESS/ALAMY

In the wake of the financial crisis, politicians and regulators mandated that risks from derivatives trading should be centralised within central counterparty clearing houses. In doing so, asks **William Mitting**, have they sown the seeds of the next crisis?

Rewind five years and the financial world was facing collapse. At the heart of the crisis was the mistaken belief that risks inherent within the over-the-counter (OTC) market could be mitigated by being securitised, packaged up and spread across the globe.

Spreading risk in an interlinked world, however, only served to heighten complexity, as the near collapse of the financial system proved. The solution, forged in Pittsburgh, US, by the G20 in 2009, was to go in the exact opposite direction: don't spread risk, centralise it. The chosen incubators of these centralised risks were central clearing counterparties (CCPs) and the implementation of that mandate is now in progress.

But will central clearing of OTC derivatives actually make the financial world safer? Are banks more interlinked than they were before and are default processes up to the task?

On the face of it, the central clearing model is safer than bilateral trading. For over 100 years, CCPs have played a key role in managing risk. Significantly more margin will be held against OTC positions than before the crisis, and the ability to cleanly close out positions in the event of a default within a CCP is much greater than a similar event in the bilateral world.

But CCPs can, and do, fail. There have been three notable failures in the modern history of the industry: the Caisse de Liquidation des Affaires en Marchandises in Paris, which collapsed in 1974 after the bursting of a bubble in the sugar markets; and the Kuala Lumpur Commodity Clearing House, which went bust in 1983 after the default of six members. Then, in the wake of the 1987 crash, the Hong Kong Futures Exchange clearing house failed, resulting in a bailout by the Hong Kong Government.

And we know all too well that clearing members founder; what we don't yet know is what impact the failure of a clearing member will have in a post-European Market Infrastructure Regulation (EMIR)/Dodd-Frank world. The move to centrally cleared OTC derivatives has increased the barrier to entry for dealing in these instruments and effectively consolidated the market in the hands of the top banks.

At the same time, the financial system has at least remained as, if not become more, interlinked. And because of the commonality of membership in today's world, multiple CCPs will be simultaneously hit by the default of a large member.

Here is how such a scenario might play out.

One of the main OTC dealers defaults. Every major CCP in the world calls out to its membership for assistance, which will result in many of the same members receiving such calls from multiple CCPs.

These calls will come at a time when they are dealing with their exposure to the collapse of one of their peers. And, at the same time, they are being asked to port their clients' business away from the defaulting member, increasing the burden on their balance sheets.

At this stage, all CCPs are in a default situation and the risk to the financial system is one not of solvency but of liquidity. CCPs then become the problem. As CCPs demand more capital for margin, members are forced to sell off assets, lowering their prices, which in turn increases the haircut on these assets. A vicious circle quickly develops.

To avoid this doomsday scenario, there is a lot of work going on behind the scenes on CCP recovery and resolution. The Committee on Payment and Settlement Systems/International Organization of Securities Commissions (IOSCO) is setting out recovery plans, and the Financial Stability Board (FSB) is drawing up rules for what jurisdictions need to do with resolution regimes for CCPs. These were not in place five years ago.

CCPs already have a comprehensive default waterfall process. This governs the order in which funds are tapped in the event of a default. At the top of the waterfall is the initial margin against that position, then the defaulting member's default fund contribution, before drawing on mutualised resources, such as the CCP's capital and the full default fund.

Variation margins

A key debate in the market today is what happens at the end of the waterfall when all provisioned funds have been exhausted. One proposal put forward by the International Swaps and Derivatives Association (ISDA) in August 2013 is to enact Variation Margin Gains Haircutting (VMGH). Under the VMGH model, a haircut is imposed on cumulative variation margin gains on the portfolio of trades each beneficial member has accumulated since the commencement of the default management process.

The logic behind this model is that the sum of the clearing participants' cumulative variation margin gains would, by their very nature, be sufficient to cover the defaulters' mark-to-market losses in the same period. In the rare event that this is still not sufficient, ISDA proposes a tear-up of the agreements.

Not all are convinced by VMGH. John Wilson, head of OTC clearing at Newedge, believes that Initial Margin (IM) haircutting would be fairer. "VM haircutting is random. On any given day you are in profit or loss. IM is proportional to risk. While everyone would have to make a contribution, it would be more proportional to total risk," he says.

The ultimate question at the heart of CCP recovery is who pays for the risk. "This is a very thorny issue and it needs to be addressed," says Barry Hadingham, head of derivatives and counterparty risk at Aviva Investors. "Our clients are being mandated to centrally clear trades because it supposedly makes the market safer than today. But then you get to the question: Who picks up the bill if things go wrong in the cleared environment?"

CCPs provide far greater protection against the default of a clearing member than bilateral trading

A European Parliament Recovery and Resolution paper protected buy-side assets to some extent in the event that a CCP failed. However, last year, a publication from IOSCO appeared to suggest that buy-side firms' assets could be used to support a central counterparty while it is still functioning as a profit-making organisation. This would be on a voluntary basis, but it has caused consternation among the buy side.

Wilson says: "In a perfect world the person who brought the risk would cover that risk. To the extent that doesn't happen, and a member contributes on behalf of their clients, you effectively are providing leverage to the clients and I find it unusual in the context of regulatory intent that you are therefore giving greater leverage to a client than to a clearing member."

Ultimately, at the bottom of the waterfall lie the central banks. Mark Carney, the governor of the Bank of England, changed the institution's position on support for CCPs. While insisting that CCPs should ensure they are sufficiently prepared for the default of two members, he indicated that the Bank would provide support for a CCP in an extreme situation. Previously, the institution had said, unconvincingly, that there was no guarantee of this.

CCPs provide far greater protection against the default of a clearing member than bilateral trading. However, CCPs remain pressure points in the financial system and the mandate to clear OTC derivatives where possible has undoubtedly increased the too-big-to-fail problem that was highlighted in the crisis. Whether the default mechanisms are adequate to prevent global meltdown in the event of multiple CCP failures remains to be seen. Hopefully, we won't find out. ○

A new era of transparency

Sophie Brodie speculates on how new regulations will affect futures commission merchants as they come to terms with the integration of over-the-counter clearing and, in some cases, trading

In the early 1960s, plots of land in Florida were quietly bought up by a variety of front companies. Eventually, the *Orlando Sentinel* reported that 27,000 acres of land had changed hands, igniting speculation that a single secret buyer was behind the purchases. His name? Walt Disney. As soon as his identity was revealed, land prices shot up; Disney bought his first acre in Florida for $80 and his last for $80,000.

Disney's 'Project X' would have been undone by transparency. But regulators of United States derivatives markets believe transparency is essential to preventing a rerun of the 2008 financial crisis. So, as of February 2014, it became mandatory to trade certain swaps, previously handled bilaterally by voice, at a swap execution facility (SEF) and clear them via a futures commission merchant (FCM).

In accordance with rules drawn up by the Commodities Futures Trading Commission (CFTC), over-the-counter (OTC) trades also have to be reported centrally to a swap data repository (SDR). These changes, regulators believe, should allow markets to adjust to losses more quickly, rather than intraday or at the close, and allow for any person wishing to trade in one place, but clear elsewhere.

The new rules present both challenges and opportunities for FCMs. According to a report by

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the TABB Group, among the biggest difficulties facing FCMs will be the need to spend large sums on technology to remain competitive and meet regulatory demands, while generating sufficient revenues as pricing models change. Another will be managing risk, in particular while acting as guarantors for trades. Under the new rules, trades must be accepted or rejected within seconds and, if clients don't pay up, FCMs are on the hook for the money to the clearing houses.

Growth forecast

According to TABB, US exchange-traded FCM revenues are expected to rise by about 15 per cent to $5 billion in 2014. Others believe this figure is 'aspirational' and depends very much on the global appetite for risk. However, quantitative easing measures are being scaled back, interest-rate volatility is likely to increase and more participants are trading 'futurised' swaps. While interest rates have been historically low for an extended period, they are only likely to rise, so FCMs could see a previously core part of their income return to more normal levels.

The futurisation of swaps has sparked interest as a response to the regulatory changes. Alarmed by the cost and complexity of the new requirements for swaps trading, some participants have turned to the futures markets for alternatives. Exchanges such as Chicago Mercantile Exchange and IntercontinentalExchange have begun offering futures contracts designed to replicate interest rate swaps. Some FCMs have integrated their swaps clearing operations into their futures services, while others have kept their desks separate, with swap dealers offering add-ons, such as research. Most market participants believe futurisation is likely to culminate in higher swap futures volumes over the next 12 months, benefiting the futures rather than swaps business, but it remains unclear which products end users will eventually opt for.

While the overall market is likely to expand, so too may the demands placed on FCMs. Since 2007, more than a third of these businesses have disappeared, some because of financial meltdown, others through acquisition. As the new rules are assimilated, Matt Simon, senior analyst at TABB Group, believes that, while the number of FCMs is likely to level out this year, from 170 FCMs registered with the CFTC in 2007 down to 91 in February 2014, much of the revenue will become concentrated among the largest firms. The CFTC's monthly report on financial data from FCMs registered shows that the top ten FCMs accounted for 75% of the traditional cleared derivatives business, as measured by customer segregated funds.

The figure for customer segregated funds for cleared swaps is even more concentrated. Of the 91 FCMs listed with CFTC, only 22 have cleared swaps segregated funds, with the the top ten accounting for 95% of the total cleared swaps customer segregated funds.

Barriers to entrants

Not only do their multi-service business models have more scope to offset temporary losses in one area, they typically also have greater financial firepower to build the technology (now required as standard) that allows clients to trade a variety of products across numerous SEFs and make efficient use of the margin deployed. Large FCMs can also offer services such as aggregated exposures and transaction cost analysis to win institutional clients.

However, as Simon comments: "Many small businesses have learned how to adapt in the era of the 'big box' retailer by prioritising client service and being more accommodating." For example, customised contact with clients during the day could make a big difference. Some larger players may also think it not worth offering certain products in which smaller firms could then specialise.

Nonetheless, barriers to entrants have increased and the top five houses are taking a larger slice of the pie. This is mainly because of their bigger balance sheets. According to the TABB survey, following the financial

FCMs will need to spend large sums on technology to meet competitive and regulatory demands while generating sufficient revenues as pricing models change

crisis, the perceived stability of an FCM is crucial to success. As a result, banks have worked harder to promote a reputation of 'boring is best' creditworthiness and commitment to the business. But staying in the futures and swaps arena comes at a price.

First, there are the necessary infrastructure spending and compliance costs of meeting the new rules – for example, checking credit limits pre-trade and being able to handle bunched orders (rules 1.73 and 1.74 of the CFTC's regulations). Second, there is the ongoing risk to FCM business models of further sweeping changes in the US and Europe. While many firms now have IT platforms in place, most OTC trades are still carried out by voice, particularly in non-US jurisdictions. So FCMs often need to manage the integration of these systems with global mandates. US clearing members can trade similar products to interest rate swaps on non-US SEFs.

However, Alex Lenhart, European head of listed and OTC clearing at Credit Suisse, believes a wholesale move to alternative areas to escape the regulation is unlikely. The European Union is introducing similar legislation (the European Markets Infrastructure Regulation, which began implementation earlier this year, and Markets in Financial Instruments Directive II, which is in the process of being introduced, with a completion date a couple of years down the line), elements of which may prove more burdensome for FCMs than even Dodd-Frank, such as having to offer individual segregated accounts to OTC clearing clients, rather than operationally commingled ones. In addition, Basel III rules on how much capital FCMs must hold mean that many clearers may find they have insufficient capital to meet requirements and run an effective business.

Passing on higher costs

One way of coping with higher costs is to pass them on to customers. Clearers that have been upfront with their client base have had some success, but many are scoring or tiering clients internally before suggesting fee increases to them. Various pricing models have been posited, but the most likely outcome will be higher clearing costs and lower execution costs as more trades are done electronically. Swap trades done via SEFs such as Bloomberg and Tradeweb could pose a similar difficulty to that faced by Disney, ie their size revealing their intention. More orders are therefore likely to be broken up, creating a huge number of them, but fragmenting liquidity. Over time, however, Lenhart believes that interest-rate-swap liquidity will start to concentrate around two or three main platforms.

Another challenge for FCMs is a lack of preparedness among some clients for the full impact of the new regulation. As of February 2014, any swap listed with an SEF must be reported electronically, while in Europe, mandatory clearing of OTC trades is being introduced. Getting the buyside connected is taking time, especially among regional players, and some have yet to test trades on unique systems offering different products. Chris Ferreri, managing director at interdealer broker ICAP, says: "Buy-side participants need to choose carefully which SEF they use to trade and through which FCM, especially at this stage of the transition."

There are also concerns about trading risk. When banks were trading bilaterally with clients, the counterparty risk might not have been fully transparent, but it was dispersed. In the swaps market, the risk will now be concentrated at the clearing house. In the futures markets, only the exchanges work with the clearing houses. But in the new world of electronically traded swaps, clearing houses operate with multiple partners, increasing the chance of error.

FCMs face considerable challenges, the greatest of which is operating a business with potentially less revenue and more cost. Those that survive and capture the opportunity presented by electronic trading, however, are likely to see their market share grow, driven by innovation, swift service and, in most cases, Disney-type scale. Whether or not this greater market transparency prevents another credit crunch remains to be seen. ○

PRISMA BILDAGENTUR AG/ALAMY

Will traders opt for flexibility or regulation?

Will the market gravitate towards organised trading facility products because traders value the protections of a regulated market? Or will they stick with over-the-counter products for their flexibility? **Solomon Teague** finds out

Authorities in Europe and the United States have been pushing for an increase in the on-exchange trading of products usually traded over the counter (OTC).

The US was first out of the blocks with swap execution facilities (SEFs), but the European equivalent, organised trading facilities (OTFs), are now starting to take shape, though details remain scarce. However, while many market participants believe that electronic trading will be more transparent than its OTC counterpart, that does not mean that adapting the world of swaps to electronic platforms will be without challenges.

"Exchange trading has always been the most regulated and most thoroughly scrutinised trading environment because it is constantly in the view of the public and the regulators," says Michael Zollweg, head of the Trading Surveillance Office at the Frankfurt Stock Exchange and Eurex Deutschland. Zollweg believes, given the negative perception of OTC trading: "It would be beneficial to the market as a whole if more trading were executed on regulated exchanges based on trading data which are as granular and specific as possible."

Not everyone shares this view. "Clearing is a good thing, but forcing traders to clear unsuitable products, let alone trade unsuitable products on a platform, may be overprescriptive," says Dan Marcus, global head of strategy and business development at Tradition. "I would rather see regulators promoting clearing and platform trading as opposed to mandating it."

Even exchange-traded products are susceptible to risks such as flash crashes, notes Marcus, so clearing is not a panacea. In developing SEFs and OTFs, authorities may have taken a model that works well in the futures market and applied it in a context where it makes less sense. Yet a critical mass of politicians and regulators share Zollweg's view, leading to the creation of these new, regulated trading platforms for products that have not traditionally been traded on-exchange. Although they share important characteristics, there are equally important differences between SEFs and OTFs that owe much to the contrasting style and philosophy of rulemakers on either side of the Atlantic.

The US model is to act swiftly and decisively, bringing rules to market and allowing the lawyers to deal with the resulting confusion. Market participants may criticise the rules and struggle to make the necessary adjustments to their business models, but at least there is a measure of clarity about what the rules are supposed to be.

More cautious approach

European regulators are more cautious in their approach, preferring to spend longer drafting the rules, incorporating the market into the process with periodic consultations. By the time the rules arrive the market tends to have digested them, having had much longer to review them and provide feedback, but it does mean the market spends longer in limbo, not knowing how the final text will compare to previous drafts.

"We have almost as much information about OTFs as we are going to get at this stage, although that's not so much," says Alex McDonald, chief executive at the Wholesale Markets Brokers' Association.

Where Europe has adapted existing regulations, particularly the Markets in Financial Instruments Directive (MiFID), to develop the OTF product,

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in the US Dodd-Frank essentially started with a clean slate, with no existing regulatory framework for OTC to build on. In some ways this has been an advantage, making SEF rules clearer and more coherent than what is emerging for OTFs. Yet the counterargument is that a vague rule is preferable to a clearly bad one.

Despite the continuing uncertainty, the OTF regime is expected to be less strict than its US counterpart, and it is seeing commensurately greater support from traders. Critics might call it a fudge, but the regime looks set to take a bottom-up approach to eligibility, allowing any instrument with sufficient liquidity, and with at least two clearing houses willing to clear it, to be included.

Unlike the US SEF regime, which is very prescriptive about what is and is not required to trade on a platform, the OTF regime looks set to be much broader, says Marcus. "It appears to allow trades to be executed with considerable flexibility and mandated execution may be determined by pre-trade transparency."

It remains unclear exactly what that means in practice, though one interpretation is that the rules will require all offers to have publicly displayed prices – with few exceptions – in order to be tradable on OTFs.

Neither is it apparent what the outcome will be for products that cannot be cleared on an OTF or an SEF because they are too illiquid.

Infinite number of products

There is also some uncertainty about whether OTFs will permit products to be traded that are not required to be traded on exchange.

"I think they should, but then there is a question about how they would be treated: should those products be subject to all the rules of OTFs?" asks McDonald. "The obvious answer is yes, but if you look at the experience of the US and SEFs that approach hasn't worked very well. It gets very complicated when you consider the almost infinite number of products out there; some of them are very similar to each other, but it is a question of where you draw the line."

The evident problem here is with the approach, says McDonald. "Participants should be authorised and regulated rather than products. One set is small and rarely changes, the other is the reverse."

The existing multilateral trading facility (MTF) regime provides the blueprint for the establishment, conduct and governance of OTF platforms. MTFs are non-discretionary and no discussion is required about trade terms or execution. Whereas MTFs deal exclusively with equities, OTFs are restricted to non-equities. A level playing field applies and the basic conduct and establishment rules are the same, as are the transparency requirements. European Market Infrastructure Regulation (EMIR) currently defines both MTF and OTF as 'OTC derivatives', "which is misleading and unhelpful", says McDonald.

OTFs will be venues for MiFID-regulated trading under the SEF mandate. "MiFID is all about regulating investments, not payments," says McDonald. "FX is a payment, but there is a legal case for including non-deliverable forwards and options." However, it remains an open question as to how traders will respond to OTFs, and how a product's qualification for trading on OTF will affect its liquidity. It is difficult to predict how the market will respond to products that are not standardised enough to trade on OTFs, says McDonald. "Will the market gravitate towards OTF products because traders value the protections of a regulated market? Or will they stick with OTC products for the flexibility they offer?"

Longer-term implications

The sell side is currently preoccupied with minimising its overheads and perceives SEFs and OTFs as a way to reduce the costs incurred via execution fees and clearing. Such platforms allow banks to differentiate themselves by helping their buy-side clients with execution and delivering margin efficiencies. However, the longer-term implications of the new regimes, both OTFs in Europe and SEFs in the US, may be profound, changing the role of banks and their relationship with their clients fundamentally.

"More standardisation, combined with higher capital requirements, is going to change the role of the banks as they are providing prime services, platforms with specialist knowledge [being] confined increasingly to an advisory role. The cost of funding with their balance sheet and that of staff and supervision is getting very expensive," says McDonald. This could have implications for equity and debt issuance too, with issuance gravitating towards specific tenors or currencies to maximise liquidity in the secondary market. It could ultimately lead to more retaps of existing bonds and less new issuance, he notes.

The move to formal trading of OTC contracts is another nail in the coffin of the personal, relationship-orientated banking model, adds Paul Gibson, business consultant at Sapient Global Markets. This model has been on the wane since trading moved from the pre-SEF electronic markets and legacy phone markets to the SEF markets. "Given that RFQs [requests for quotation] have to go out to a minimum of three participants, traders can no longer choose who they trade with," says Gibson.

"This leads to a more democratised market, giving a chance for lesser- known players to get the same prices as the established players, and it is one of the reasons the industry was against the regulations when they initially came out."

The move is another nail in the coffin of the relationship-orientated banking model

The proliferation of trading venues in recent years has always caused concern in some quarters, especially among those who fear the fragmentation of liquidity will ultimately make it harder and more expensive to trade.

The buy side is always most interested in liquidity and cost, and the advent of SEFs in the US has seen volumes on traditional exchanges decline. This trend is likely to continue in Europe once OTFs open for business, as liquidity shifts between venues.

Operational risk

Yet in the face of tougher competition, exchanges are desperate to attract volumes and see improving capital efficiency for their customers as a way of picking up market share, says Steve Woodyatt, chief executive and chairman at Object Trading. There is no perfect solution: having all volume on a single exchange would ensure liquidity; such concentration would create considerable operational risk, as well as removing competitive pressures that benefit market participants.

"Nirvana would be to have a single, centrally cleared platform on which you can trade all assets," says Woodyatt. The cost to business of fragmentation is too high, while ensuring there are linkages between assets on a single platform allows collateral to be allocated efficiently and lowers costs in reporting, execution and clearing, he says.

As traders consider their options there is evidence of a migration of business away from New York to London, especially among dealers. The US has stipulated that all block trades be reported to swap data repositories via SEFs. Europe has so far avoided making such demands, though there are references to making trades publicly available both on a pre-trade and post-trade basis.

Increase transparency

"It seems the US hopes its move will increase transparency by ensuring such large trades are subject to some of the rules of an SEF," says Marcus. "This, of course, is likely to increase the cost of trading where, as is likely, SEFs begin charging a block-trade reporting fee."

By avoiding this requirement, OTFs look set to compare favourably to SEFs on price. There is currently no requirement for transparency between non-US trading counterparties, says Gibson, which may increase liquidity in Europe in the short term. Even when the OTF rules are finalised it will still be about two years before they come into full force, and traders are likely to take that opportunity to weigh up their options before making any decisions about leaving Europe. ○

The age of electronic trading

As electronification of derivatives threatens to cause a breakdown in relationship banking, dealers must revolutionise their approach to the buy side, writes **David Rothnie**

There is a new mantra in circulation at some big financial institutions: "What if Google designed an investment bank?" It sums up the radical overhaul needed among traders as they face up to the new reality of electronic trading and a world of centrally cleared derivatives. Of all the challenges posed by the introduction of the Dodd-Frank Act in the United States, the potential destruction of relationship banking is one of the thorniest. The need to execute and clear derivatives electronically has the potential to kill off voice trading, and with it the ability for traders to build relationships. Meanwhile, the introduction of centralised clearing for products such as swaps, which will come to Europe during the fourth quarter of 2014, has led to smaller trade sizes and slimmer margins, making the electronification of trading the future for the industry.

It makes sense for dealers to embrace technology as a way of preserving profitability against falling revenues. But it also raises the question of how firms can maintain and leverage relationships with their clients – and where those relationships exist.

"Banks are looking to offset the decline in revenues from electronic trading and the shrinking of the market under Dodd-Frank with data science," says Bradley Wood, a partner with consultants GreySpark. According to Wood, banks must move towards a world where the data they hold about their client is held centrally, enabling them to understand and anticipate how they can serve them, and keep them as customers. Hence the 'what ifs' about Google.

"This isn't an IT issue; it's a business issue," says Wood. "Firms that fail to embrace data in the next five to 10 years, and fail to find ways to segment their clients, will lose out or, worse, disappear altogether."

Embracing the new

This requires a massive cultural shift, smashing the embedded silo culture and introducing a single P&L for each client, regardless of what products they trade, who they use to execute them, and who their clearing broker is. Only then, argues Wood, will they remain relevant to the buy side.

It is a dramatic scenario, and some distance from becoming a reality, but it shows how deeply banks are thinking about client relationships in an electronic world, where every firm – from 'flow monsters' to execution-only niche players – is under pressure to innovate.

There are many positives for banks in this trend of electronification, and many argue that the new world order is much like the old world order, with the changeover to exchange trading and central clearing carrying echoes of the move from open outcry to electronic trading 20 years ago. There is also a pragmatic reason to embrace electronification: it enables banks to cut costs – which are being driven up by new regulations forcing them to set aside more capital in trading – by dispensing with expensive sales traders and, in some cases, replacing them with algorithms.

But it would be a mistake to view electronification as a way for banks to try to shrink their way to

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greatness, says Michel Planquart, EMEA head of futures and over-the-counter (OTC) clearing at Citigroup: "One way of looking at this is that we are in the business of selling applied technology, and in the exchange-traded derivatives space we have developed CFOX [Citi Futures & Options Execution], which is available on Velocity, Citi's trading and research platform."

Citigroup views exchange-traded and OTC derivatives clearing as one activity and a way to drive efficiencies and provide interrelated services to its clients. The idea is to embed relationships more deeply by using clearing services and other related products, such as collateral management and transformation, to enhance the execution or other traditional banking relationships it has with its clients. Where, in the past, dealers would not be as discerning when it came to the quality of collateral in OTC deals (for example, accepting corporate debt), central clearing counterparties (CCPs) demand highly rated instruments as collateral. Some banks are providing services to optimise or transform assets into acceptable collateral for clients – for a fee.

It raises the question of how firms can maintain and leverage relationships with their clients – and where those relationships exist

"The important thing for hedge funds and asset managers to bear in mind is that, even among full-service firms, all clearing services are not the same," says Planquart. "Their offerings differ in terms of research, collateral optimisation, margin management, and the way in which they manage collateral across CCPs. Even the credit rating of the clearing broker has an impact on collateral. If they are not already, the more sophisticated buy-side participants should be using the new regulations as an opportunity to evaluate the relationship they have with their clearing broker and prompt a shake-up."

A report from TABB Group says that 80 per cent of the clearing activity for rates products is done through the clearing house that executed the trade. So there is a way of protecting and enhancing execution offerings, and real evidence of a closer relationship between execution and clearing. In December 2013, Citigroup integrated its clearing business with collateral management under its investor services umbrella.

Choosing the right partner

There is an argument that the overarching Dodd-Frank rules governing derivatives, which increase the pace of electronification, play into the hands of big banks. By bundling up clearing, trade reporting and data analytics, flow monsters aim to strip clients of any reason to go elsewhere. It also makes big banks crucial pillars of the new market infrastructure.

Silas Findley, head of OTC clearing for EMEA at Citigroup, says: "Significant technological investment is required when providing clearing services to large sophisticated clients trading in volume, and that tends to create significant barriers to entry for new providers. But there are also different target markets for clearers of differing size and capability. We are very selective in how we choose the clients we partner with in clearing."

Execution-only brokers are looking at ways to recalibrate their businesses as a way to fight the threat of lost flow

There is also evidence that other players will thrive, particularly by transferring technology from the equities world. Execution-only brokers are looking at ways to recalibrate their businesses as a way to fight the threat of lost flow, whether they be single- or multiple-dealer platform offerings. Some options dealers are offering a broader, more sophisticated range of products, while other brokers with strong equities operations are looking to transfer that technology and apply it to the centrally cleared world of fixed income.

The likes of UBS have stopped principal trading altogether in favour of an agency model, providing matched order routing and advanced execution to the buy side. But there is no one-size-fits-all across asset classes. In fixed income, there is an ongoing commitment in terms of coupon payments, while swaps are more complex than equities. In fixed income, the challenge is to provide both quote and order book, whereas in equities, electronic trading uses only anonymous order books that discover liquidity through dark pools.

Meanwhile, voice execution remains an important part of the market and reports of its death are being exaggerated under the doomsday scenario of electronification. At Japanese bank Nomura, the global voice business continues to be central to its execution offering at a time when others are de-emphasising it. The bank also believes new regulations will strengthen rather than undermine client relationships.

Rod Banus, global product manager for futures and options at Nomura, says: "There is a really exciting blend between swap execution facilities, OTC and swaps futures. We have always set great store by being close to our clients, and supporting them through the raft of changes – from trade reporting through segregation and portability – makes us more relevant and strengthens those relationships.

"There are new opportunities across execution services, including products such as OTC cleared derivatives and swap futures. At the same time, our global voice team remains a core component of our offering and clients appreciate the value added." ○

Heavy spend for banks on SEFs

The requirement for banks to invest in technology as they restructure their over-the-counter derivatives operations is a challenge that is being met by third-party providers, writes **William Mitting**

If there is one thing that all banks and brokers agree on, it is that the move to electronic trading of standardised over-the-counter (OTC) derivatives is going to cost them. Much of the focus of that cost has been on margin reductions from more standardised and transparent trading of these contracts, but the technology costs will also be enormous.

A 2011 TABB Group report estimated that the 15 largest dealers would spend more than $1.8 billion on restructuring their OTC derivative businesses to meet the requirements of Dodd-Frank. The rewards at the end of this process are lower margins and more competition.

But one firm's challenge is another firm's opportunity, and the need for banks to invest in technology, combined with their increasing appetite for outsourced third-party tech products (a trend voiced most insightfully by software specialist Fidessa's director of strategy development Steve Grob in various white papers over the past 12 months), adds up to a big opportunity for independent service vendors (ISVs).

Of the $1.8 billion spend forecast in the TABB Group report, over $600 million was allocated for risk management, $281 million on e-commerce platforms and $288 million on low-touch distribution. The remainder was to be spent on collateral management and central counterparty clearing houses (CCPs).

The introduction of swap execution facilities (SEFs) to trade standardised OTC derivatives is responsible for the bulk of the additional costs facing banks. Spending is concentrated in three key areas: connectivity, risk management and post-trade settlement and reporting.

Moving to an agency model

For banks, the move to electronic trading of OTC derivatives represents a fundamental change in their business models across large swathes of the market. In many products, banks will move to an agency model, providing a futures-like service of connectivity and clearing, rather than assuming risk on a trade and finding buyers and sellers, as they have operated traditionally.

Inevitably, this will lead to a reduction in revenue as banks adjust to a commission-based fee, rather than capturing a spread. The problem is that, unlike in the futures market, there is simply not enough liquidity in the OTC markets to provide decent revenues for the number of incumbent participants.

"There will only be a few 'flow monsters' who will spend heavily and get deeply involved in providing electronic access to their customers," says Tim Dodd, head of product management at SunGard's Front Arena.

Flow monsters are those banks that will seek to provide far-reaching execution to SEFs. They have made

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or will need to make large investments in connecting to a range of SEFs. SEFs will operate on a request-for-quote and central-limit-order-book basis.

Flow monsters will therefore have to have the capabilities for a variety of ways to price their position in order to quote on a consistent basis, says Dodd. They will then need to ensure that whoever they are trading with has the post-trade infrastructure in place.

"This infrastructure is similar to that currently used in trading equities or bonds, but it will be for lower volumes," Dodd says. "There is not enough liquidity across all the SEFs to justify large numbers of firms investing in consolidating that liquidity. That investment in connectivity is expensive. The flow monsters will invest. Others that used to offer execution will either white-label or outsource the execution, or just walk away from that business and focus on clearing."

> There is simply not enough liquidity in the OTC markets to provide decent revenues for the number of incumbent participants

Pre-trade clearing mandate

In the run-up to the launch of SEFs, the Commodity Futures Trading Commission (CFTC) mandated that pre-trade clearing certainty had to be achieved in order to trade. On the face of it, this was a sensible idea. Many were concerned about what might happen to a trade that was approved on an SEF if it was not accepted by the CCP and was left in SEF purgatory.

However, in terms of the technology requirements, the implementation of pre-trade clearing certainty was a significant headache. "It is like the CFTC said: 'Hey, wouldn't it be great to have pre-trade clearing certainty?' and just stuck it in there without a thought to the practicalities of achieving it," said one market participant.

From post-trade to pre-trade

Sassan Danesh, managing partner of Etrading Software and co-chair of the FIX Trading Community OTC Products Committee, says: "Post-trade information had to come from the back end and into the pre-trade space. FCMs [futures commission merchants] did not need to be involved in this area of the trade life cycle before, and now they have to do it in real time with the SEFs."

ISVs leapt into the breach. Markit and Traiana both developed credit hubs to meet the pre-trade clearing mandate, and these are now used by all the major dealers to guarantee that pre-trade credit is approved.

It is not just the banks that have to invest; the buy side also faces a technology overhaul, and the way buy-side firms do business is also changing. Phil Wang, senior vice president, capital markets product development at OpenLink, says: "The buy side need to make a technology investment to fully optimise their straight-through processing [STP] workflow for an SEF-executed trade across their different systems. Electronic trading and transparency sounds good, but there are a lot of choices to be made. What

Garry Jones, Chief Executive Officer, London Metal Exchange, and Co-Head of Global Markets, Hong Kong Exchanges and Clearing

The LME [London Metal Exchange] was acquired by HKEx [Hong Kong Exchanges and Clearing] in December 2012, and with the transition and integration now completed, the firm is expanding rapidly in new business services, client coverage and product expansion, with a real focus on Asia. Our Hong Kong and London hubs work together to provide global solutions.

We hosted LME Week Asia in Hong Kong for the second time in April. It was a very successful event – 600 guests at the seminar and 1,500 at the dinner. During the week, HKEx also announced plans to launch its commodities business, with four futures contracts to be traded in its derivatives market in Hong Kong: London Aluminium Mini Futures, London Zinc Mini Futures, London Copper Mini Futures and API 8 Thermal Coal Futures.

Looking ahead, the LME is building a clearing platform, LME Clear, which is on track to go live this September. We've built this with full knowledge of the regulations that will be coming into force over the following years, so LME Clear is in an advantageous position compared with existing clearing houses.

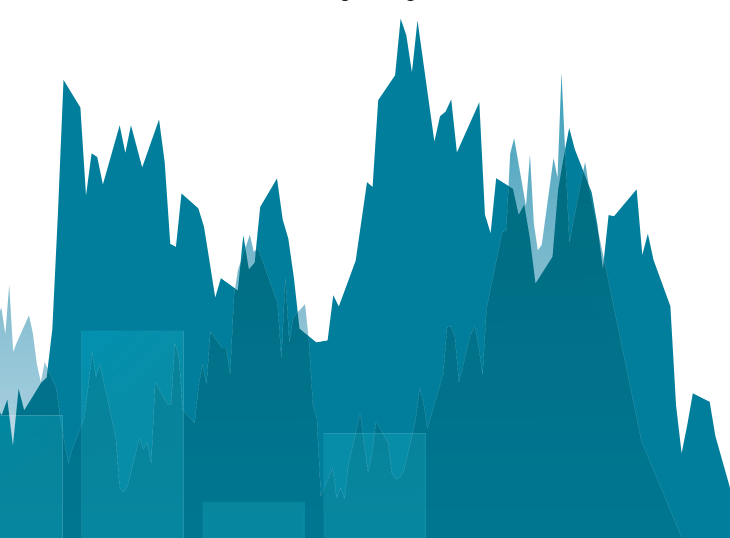
The foundations of the LME are the physical markets. So other areas of growth will come from getting more out of the metal value chain globally – producers, smelters, intermediaries, consumers, recyclers and so on. We also want to encourage greater participation by the financial industry. We need to make sure we give more access to our markets for that wider range of users.

To do that, we're investing heavily in technology and new staff – we've just brought our 100-strong outsourced IT team in-house. We want to respond quickly both to the changing needs of LME market participants and to the constantly evolving trading landscapes.

can I do with voice? Do I want to handle unsolicited versus solicited workflows? How do I aggregate pricing across the SEFs?"

There are many workflow challenges and, in terms of the STP life cycle, there are further questions. Pre-trade compliance, getting fill and allocation details from the SEF trade reconciliation, and trade monitoring are all key areas of investment for the buy side. Decisions on these aspects will need to be made over the next 12-18 months.

There are predictions in some corners of the markets that algos might start to trade on SEFs. Most are sceptical about whether this will become a reality outside relatively simple arbitrage strategies. Volumes are at present far from sufficient to support any high-frequency strategy, and firms connecting to SEFs will have to assume huge amounts of risk in order to sponsor algo access.



Looking ahead, Dodd predicts new technology innovation in a number of areas surrounding SEF connectivity. "There could be new visualisation technologies looking at where liquidity is. Visualisation is becoming very interesting in other asset classes," he says.

"Another area of development will be in how to get big orders filled in open electronic marketplaces, involving slicing up orders and taking account of latency across the lines. SEFs are currently far apart and, unless you send orders to the marketplace that is furthest away first, prices might move away from you in those markets. You might have to tune your latency and lines to specific venues. If liquidity is spread thinly enough, that might come into play in this market."

For now, though, firms will have to bed in the investments they have made, simply to comply with the mandate. Should algos start to actively trade SEFs, this will require more investment. In order to justify that, SEFs will first have to prove they are worth the investment.

Building new platforms

IMAGE SOURCE/GETTY IMAGES

Rob Hartley takes a look at the new clearing platforms vying for client attention in the wake of the financial crisis and considers how the over-the-counter market may be evolving

The aftermath of the financial crisis brought seismic changes to over-the-counter (OTC) derivatives markets, as regulators set about shining a light into the shady world of bilateral trading. As a result of that process, opportunities have arisen for exchanges, as they seek to cash in on the higher cost of trading OTC.

Part of the change has been product-focused, but there has also been a shifting of the competitive landscape, with bourses snapping up OTC platforms, illustrated by the launch in September of London Stock Exchange (LSE) Derivatives Market, bought as Turquoise MTF in 2009. LSE Derivatives Market was converted to a regulated market from the OTC-focused Turquoise with a view to offering faster clearing. Article 26 of the European Market Infrastructure Regulation (EMIR) states that derivatives executed on regulated markets may clear in two days instead of five.

The new environment has also encouraged exchanges to cannibalise the OTC space, particularly in commodities and interest rates. Exchanges such as IntercontinentalExchange (ICE) have been at the forefront of so-called futurisation, offering standardised solutions in a previously bespoke environment.

Level of encroachment

The possibility of large exchanges moving into these fledgling markets at an early stage raises questions about their ability to take OTC business away from its traditional facilitators, but the overall level of

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encroachment still remains open to debate, with the established divisions still functioning. "The reality of the matter is that OTC markets will always exist and exchange-traded products will always exist," continues Clark. "They have always cohabited and enhanced mutual liquidity. The exchanges are not necessarily encroaching, because not all products can be standardised. "The whole concept that there is conflict between exchanges and OTC has been very unhelpful and it has fogged the debate about how you improve the regulatory environment because it isn't just one or the other. It's both and it will stay both."

Clark believes that regulatory reform is not about pushing products onto exchanges, but rather about mandating products for clearing and reporting trades to trade repositories. "What we would like to see is a bigger international effort so trade reporting can take place on a standardised basis across the world. Non-standardised products that need to be traded bilaterally will always exist. This is often the most liquid market."

The ability to attract users onto new platforms is likely to be key in deciding the winners and the losers in this new environment and there are likely to be fierce battles to win the confidence and business of customers.

Ted Leveroni, executive director of derivatives strategy at Omgeo, believes the key to success in the derivatives market rests on attracting liquidity. "There's going to be a lot of competition for this liquidity in the trade-execution space," he says. "We're in the early stages of SEF trading in the United States and OTF development in Europe, but these stages will be pivotal in determining which platforms survive.

"Established players have a natural competitive advantage because of name recognition and an existing presence in the market. It will be more challenging for the smaller or start-up venues. They may need to find a niche or align themselves with a bigger player. I believe we will see liquidity concentrated among the larger, established venues that can partner with the smaller players."

> "I believe we will see liquidity concentrated among the larger, established venues that can partner with the smaller players"
> **- Ted Leveroni, Omgeo**

Overcoming challenges

"Exchanges have been looking at M&A [merger and acquisition] activity as a way to overcome challenges around fragmented liquidity, increased competition and declining revenue – all of which have resulted from the emergence of new trading venues," he continues. "It seems likely… that we will see more cooperation between large exchange operators and smaller trading venues with niche, non-competing offerings."

Leveroni also believes that, as a result of regulatory reform, much of the OTC market will make a transition to look more like the futures space. "There are lots of engines that will drive the futurisation of the OTC markets, such as capital requirements, or for some players, the lack of OTC clearing availability. Moreover, there is increased demand among investors for swap futures because of their standardised and transparent nature. What makes a big difference is the way brokers and CCPs [central clearing counterparties] are creating supply, which makes it easier to replace swaps with futures."

Futurisation activity

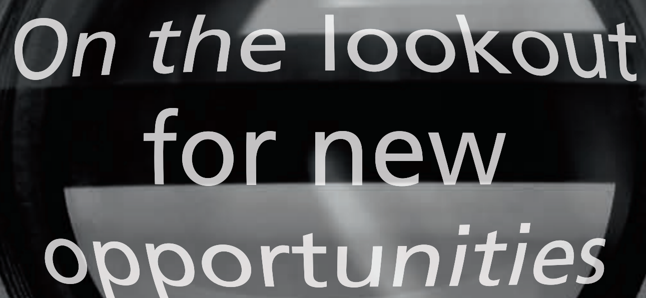
There are several areas in which the futurisation of OTC products is taking place, but it is understood that the most activity is around interest rates, with energy products also showing strong growth. These products have been emerging for several years, with more platforms seemingly considering them all the time. Deliverable swap futures were launched by the Chicago Mercantile Exchange in December 2012 and the ERIS Exchange in 2011.

"What we have seen over the past two to two and a half years is the regulations have been slowly implemented," says Matt Simon, head of derivatives futures research at TABB Group. "Volumes have been inching higher. As a follower of the market, you always think there will be a cannonball effect where things will just explode, but it hasn't happened."

And the lower margin requirement for a liquid future over an OTC swap can give the user a 20-40 per cent cost saving, says Simon. "It's a combination of regulation and new rules that will make reporting, clearing and… trading of OTC instruments more expensive. If you are an end user of swaps, you have to post margin."

So, after the flood of consolidation, new regulation and market pressures continue to shape this evolving landscape, with many of the assumptions of the past being challenged. Larger exchanges have bought up many of their counterparts in the derivatives space and are looking to not get left behind as platforms emerge in areas such as swaps and the futurisation of OTC products.

The credit crunch and ensuing recession has changed the face of many industries, especially in financial services, and the exchange environment is no different. These aftershocks are set to continue throughout the decade and beyond as the market gets to grips with the new reality and the various platforms fight it out for the spoils. ○



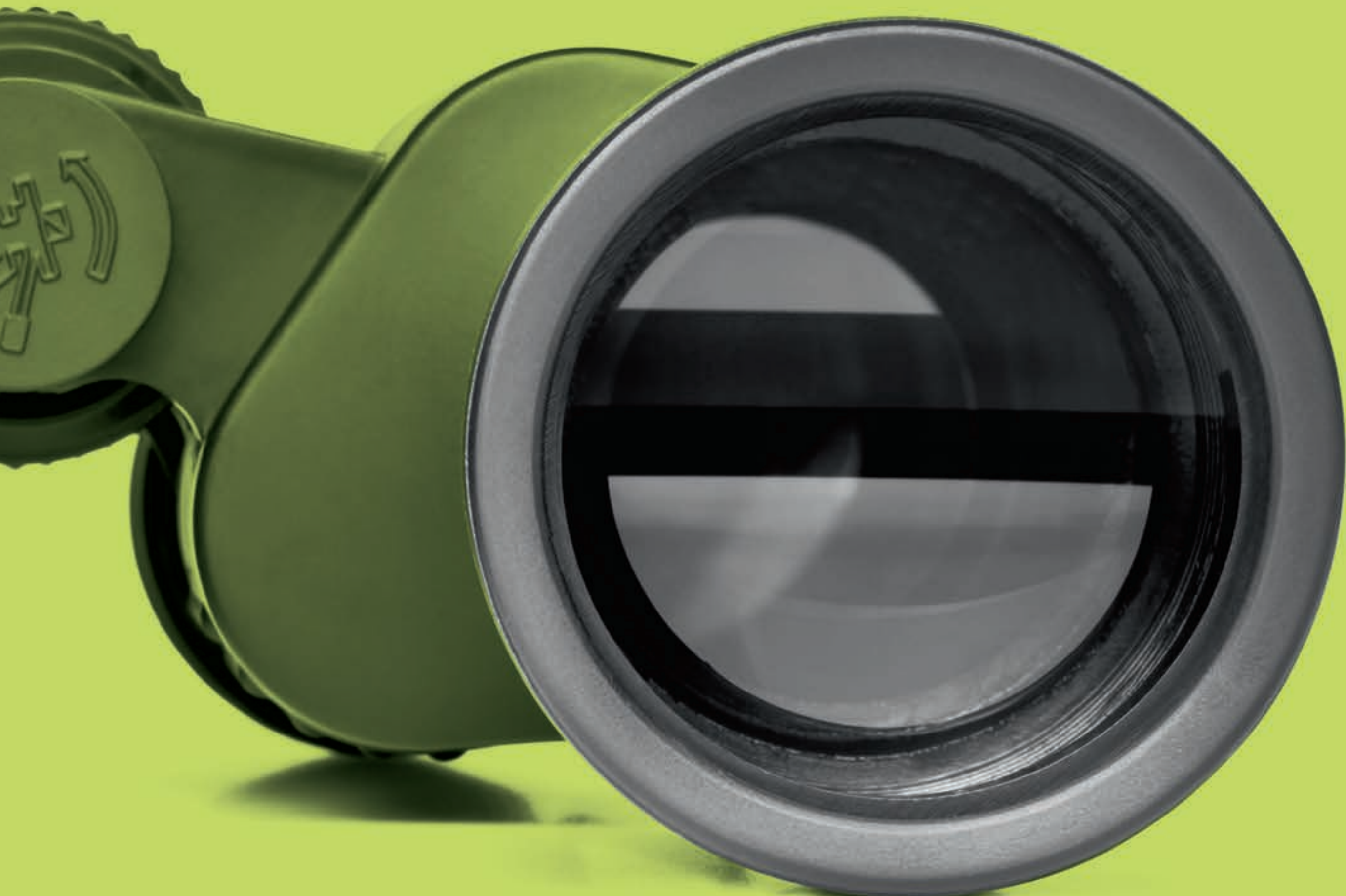
On the lookout for new opportunities

In the search for sources of revenue, exchange groups have renewed their focus on the derivatives market – and it's not all about direct acquisition, notes **Galen Stops**

As traditional revenue sources dry up, exchange groups in Europe have been increasingly diversifying their business interests in recent years. There has been a dearth of initial public offerings in Europe since the financial crisis, while increased competition in the equity market has driven down exchange fees, making stock exchanges less profitable. National governments have also traditionally been protective of the stock exchanges, meaning that mergers and acquisitions can be difficult.

The response to this from exchange operators has been to look for other revenue sources to boost their profits. Derivatives exchanges are inherently more international than stock exchanges, and so offer exchange groups a good way to expand their presence internationally.

This, combined with the new regulatory pressures that will force more activity into the exchanges, has led exchange groups to renew their focus on the derivatives market. Additionally, they have been pushing into new asset classes, new geographies and new product lines,



and offering new services to their clients. Common wisdom used to dictate that to expand its geographic footprint, an exchange had to merge with or buy another. The development of Euronext and NASDAQ OMX Nordic is testament to this.

New methods of expansion

CME Group demonstrated another approach that is now proving more successful. Instead of buying exchanges, CME Group started offering its technology, investing capital in order to acquire a small percentage of an exchange, and then listed its products on its Globex platform.

As a consequence of this approach, CME Group now has stakes in BM&F Bovespa, MexDer, Bursa Malaysia and the Dubai Mercantile Exchange. "Look at the CME as a shopping mall. They want ever more footprint into this shopping mall, so they're constantly expanding the shops and product range that they can offer to their customers," says Philippe Carré, global head of connectivity at SunGard. "However, in the past few years, the CME has stopped doing this, and it seems to be in a little bit of a bind as to what the next step in its strategy should be," he adds.

After a series of regulatory delays, CME Group recently launched its European exchange in London, where it already has a clearing house.

Following its failure to buy the London Stock Exchange (LSE) and then to merge with NYSE Euronext, Deutsche Börse has also adopted this collaborative approach. It is now looking to replicate the success of its collaboration with the Korean Stock Exchange in listing its KOSPI contracts with other exchanges.

At the end of 2013, Deutsche Börse announced a new deal with the Tel Aviv Stock Exchange, and more

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MICHAEL GOTTSCHALK/PHOTOTHEK VIA GETTY IMAGES

Deutsche Börse is looking towards Asia to grow its business, and has bought stakes in the Taiwanese and Bombay stock exchanges

recently it announced a new link with the Taiwanese Stock Exchange, in which it purchased a five per cent stake. It also has a five per cent stake in the Bombay Stock Exchange in India.

Deutsche Börse has made no secret of the fact that it considers Asia as the main geography where it can effectively grow its business.

NASDAQ OMX has pushed further into Europe recently with the launch of its NLX platform in London, which seeks to challenge the historical duopoly of Liffe and Eurex in the interest rates market. In December 2012, NASDAQ OMX also purchased a 25 per cent stake in The Order Machine (TOM) in the Netherlands, with an option to buy another 25.1 per cent further down the line. Then, in January 2014, the company announced that it had taken a five per cent stake in Borsa Istanbul, with an option to buy a further two per cent in the Turkish Exchange.

IntercontinentalExchange's (ICE) acquisition of NYSE Euronext has bucked the recent trend towards collaboration over buyouts. However, the fact that ICE has put Euronext up for sale shows the emphasis on derivatives over equities as a source of revenue for these exchange groups.

Technology as a new option

Technology has proven to be another new revenue stream for exchange groups, and is commonly used as leverage in any collaborative deal between exchanges. Traditionally, the exchange groups that were most successful in selling their technology were NYSE Euronext and NASDAQ OMX. "The one big disruption of this was the London Stock Exchange with its purchase of MillenniumIT [MIT]. The LSE has used MIT technology internally for its UK platform and on its Italian platform, and continues to sell MIT technology to other exchanges, such as the Johannesburg Stock Exchange," says Carré.

In this market, it is noticeable that these exchanges are increasingly selling advisory services along with the technology itself. The selling exchange can explain how to run and work the new ecosystem, help with member development, and demonstrate how to track trading operations, for example. By providing additional functions around the technology, the exchanges are adding more value to their proposal and can subsequently price it higher.

> Exchanges with a strong OTC clearing proposition will gain access to a wide new range of clients from which they can gain revenue

As well as providing new services around their technology, exchanges are offering a broader range of services around trading. The more times that an exchange can touch a trade throughout its life cycle, the more revenue it can derive from that trade.

Therefore, on the pre-trade side, exchanges are offering new monitoring and surveillance technology as well as pre-trade risk-management tools. At the same time, some of them are attempting to increase their market data fees.

Willem Meijer, Chief Executive, TOM Group

This year, TOM Group will further promote competition in the exchange-traded options market by routing an ever-larger proportion of orders to the venue offering best execution.

In doing so, TOM will consolidate its dominance in the Netherlands' retail sphere.

As more and more domestic and foreign players in the options world migrate from the incumbent exchange, Euronext, and connect to TOM, sending their flow to us, we expect our overall share of the Dutch market to increase from 33 per cent to 40-50 per cent by the end of 2014.

When we entered the market in 2011, Euronext had a total monopoly in Dutch options.

Our smart order router, which compares several quotes and sends clients' orders to the venue offering the best price, now routes to TOM 85-90 per cent of the time and only about 10 per cent to Euronext.

We believe that more than half of all the Netherlands' retail volumes are already on TOM and, with the committed flow from clients who will be connecting to us, that will increase to 75 per cent by the end of this year.

TOM's expansion plans centre on opportunities on the institutional and professional side. We're exploring building on the opening up of index products to competition that we paved the way for, adding indices to our segment or connecting European exchanges' active stocks to our platform.

We also aspire to create competition for end investors elsewhere by opening an exchange in another country. However, given the committed flow from local partners required to give it the necessary kick-start, this is very much a long-term project.

On the post-trade side, OTC clearing is viewed by exchange groups as a potential major source of revenue in the future. The OTC clearing mandate in Europe is expected to come into force in late 2014 or 2015. When this happens, many previously bilateral contracts will have to be centrally cleared. This means that exchanges with a strong OTC clearing proposition will gain access to a wide new range of clients from which they can gain revenue.

Diversification is key

There are also opportunities for additional services around clearing. This was made evident at the annual press conference of Deutsche Börse in February, when the chief executive Reto Francioni stated: "Due to new regulatory requirements, we also expect to see a sustainable rise in the demand for services for collateral and liquidity management. That is why we are systemically expanding our 'Global Liquidity Hub'. "We are expecting to see significant additional net revenue from this initiative in the medium to long term."

The diversification of exchange groups into different services at different levels of the trade life cycle is exemplified in many ways by the LSE. Traditionally a stock exchange, it then bought Turquoise, FTSE and LCH.Clearnet, adding a derivatives platform, an index provider and a clearing house to its business line. Exchanges in Europe are also diversifying into new asset classes in the search for new revenue. ICE's strength has traditionally been the commodities market, and yet in Europe it has bought Liffe, primarily for its lucrative interest rate business. Both CME Europe and Eurex are aiming to launch foreign exchange contracts in London, although so far both projects have been delayed. Eurex has also invested in the new Global Markets Exchange Group, which will offer interest rate swap futures contracts.

NASDAQ OMX is attempting to break into the derivatives markets again through NLX and TOM, both of which have stated that they intend to expand into new products and asset classes as they develop.

The commodities and energy derivatives markets could be the next big one that exchange groups look to push into. NASDAQ OMX has a commodities exchange, Eurex has the European Energy Exchange. Reports have also surfaced that if CME Group continues to be frustrated in its attempts to launch FX products in Europe, it will instead launch with energy contracts.

To drive revenue stream, exchange groups are looking for more ancillary services that they can provide around their primary function as a trading venue. Although in theory this limits the scope of services or products they can offer, the amount of growing derivatives markets around the world, coupled with new regulations that are reshaping market infrastructure, means that there is still a lot of growth potential for these firms. ○

High-frequency trading under the spotlight

POLYGRAPHUS/GETTY IMAGES

High-frequency trading has come under the gaze of regulators as the use of algorithmic trading increases, high-speed automated trade technology advances and concerns over the potential for market abuse grow, writes **Paul Godfrey**

What these so-called flash-crash events – or in NASDAQ's case, a flash freeze – all have in common is that the finger of blame has been pointed at high-frequency algorithmic (algo) trading for either triggering the disruption or magnifying its impact by compounding large price moves. High-frequency trading (HFT) relies on computer programmes to determine the timing, prices or quantities of orders in fractions of a second. Despite a lack of conclusive proof of its culpability, the widespread unease created by the spectre of computer algorithms running amok has drawn the attention of regulators.

Freak mishaps are one thing, but throw into the mix concerns over the unlevel playing field high-speed algo trading creates and its potential for market abuse, and it is hardly surprising that HFT is under the scrutiny of regulators around the world. The sector is coming under fire on both sides of the Atlantic: from the Commodity Futures Trading Commission (CFTC) in the United States, from the European Commission, and in Germany, where the compliance deadline for a new law regulating HFT has just passed. French and German finance ministers have renewed a push for a financial transaction tax (FTT) to be introduced across 11 European Union states after a bid for EU-wide implementation failed. In the United Kingdom, legislators have proposed an FTT that specifically targets HFT.

Creating uncertainty

The EU is forging ahead with its Markets in Financial Instruments Directive (MiFID) II and its Markets in Financial Instruments Regulation (MiFIR) II, clearing the way for the effective regulation of HFT for the first time by moving most trading, including foreign

Can order books promote accountability?

Eurex Exchange reports on the benefits gained by the buy-side from on-exchange trading of MSCI derivatives

Transparency builds trust. When people have access to publicly available trade data for a given product, it helps them to be confident in a market – and in the prices that they are being quoted by their counterparties. It is particularly important that buy-side traders who deal in large sizes on a bilateral basis have the confidence that they are being treated fairly. That is one reason why market data remains an essential decision-making input.

The need for trustworthy markets is especially relevant in the case of MSCI-based products because of the buy-side's heavy reliance on MSCI indexes as benchmarks. According to MSCI, some $8 trillion is benchmarked against their indexes and they serve as the basis for more than 500 exchange-traded funds.

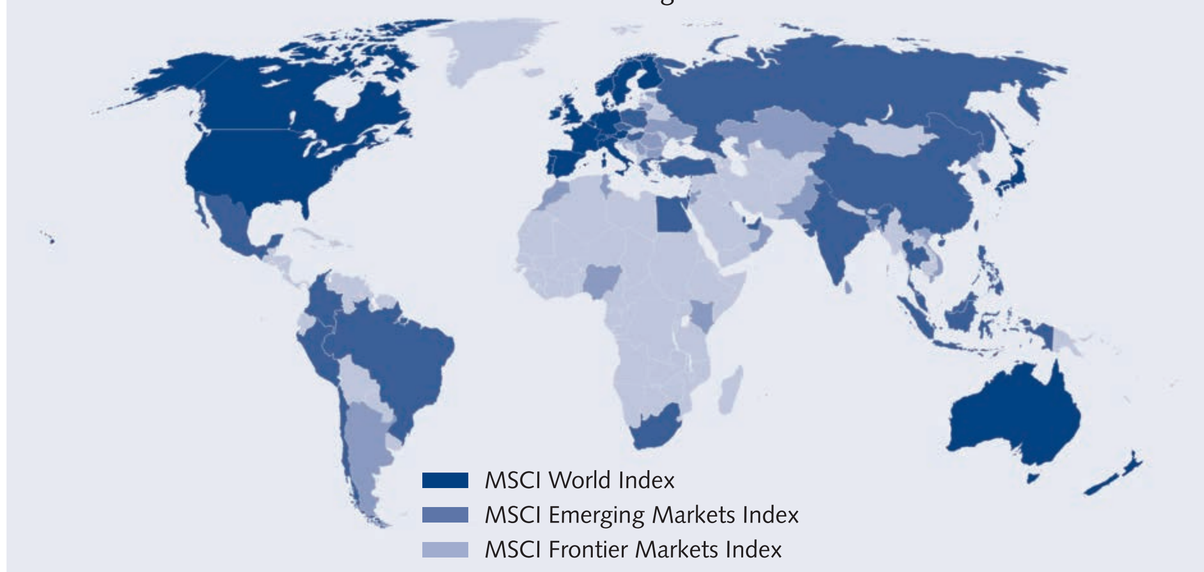
Given their prevalence, Eurex Exchange's MSCI offering is worth paying attention to for some very important reasons. Arguably, the most important of which is that Eurex markets in MSCI derivatives offer greater price transparency in the Euro-area than the competition. This is because the Exchange offers central order book trading across all of its MSCI futures and options and trade data that is reported in real-time and available via the major data vendors such as Bloomberg and Thomson Reuters.

A number of exchanges offer MSCI-based index futures; only two offer options on MSCI indexes and only Eurex Exchange offers more than two options. At 33 futures and 15 options, Eurex Exchange's coverage is noteworthy for more than just its diversity. Its MSCI products feature maturities out to three years for futures and five years for options. These extended maturity dates for listed products offer added convenience, but they also represent an important reference tool that the buy-side can harness to price their hedges further out.

MSCI Total Return Swaps, until the introduction of exchange-traded contracts, were the only tool that allowed for leveraged hedging for investments benchmarked to MSCI indexes – but they are still bilateral over-the-counter OTC trades.
You can also deploy futures and options strategically as part of your hedging programme. The buy-side has its operational preferences, but that does not mean that they cannot be improved upon with greater

The competitive landscape – MSCI derivatives

MSCI derivatives	Eurex Exchange	Europe-based provider	US-based provider	Singapore-based provider	South Africa-based provider
Introduced	2008	2008	2009	2009	2014
Number of MSCI index derivatives	33	39	21	7	5
Order book	✓	MSCI Europe & World only	✓	✓	–
Options	✓ (15 underlyings)	–	–	MSCI Singapore & MSCI Taiwan	–
US approval	MSCI Europe, World, Japan, AC Asia Pacific ex Japan + 11 others	MSCI Europe & World only	All	MSCI Singapore & MSCI Taiwan	Not yet
Stock as collateral	✓ (25,000 products)	–	✓	Selected common stock	✓
Privacy	24 hours delay for some traders	✓	–	–	✓
Transparency	✓	–	✓	✓	–
Flexible contracts	✓	–	–	–	✓
Trade entry services	✓	–	–	–	✓



transparency, straight-through processing, central clearing and optimised collateral management. If your counterparty can quote you a Total Return Swap then there should be no reason why it cannot quote a price in a MSCI index future listed on Eurex Exchange.

'Trust but verify' with order books

Central order books shouldn't be relegated to second-class alternatives by the buy-side because they opt to trade on the OTC markets. Transparent order books are essential in promoting accountability among market participants. When prices and terms can be quickly cross-checked against publicly available prices and tickers, everyone wins. Data vendors like Bloomberg and Thomson Reuters are key partners in the quest to enhance market quality, and overall fairness.

The Exchange isn't attempting to convert all OTC transactions to order book volume. Rather, it believes in the complementary nature of side-by-side trading. Eurex Exchange runs a hybrid market that couples the advantages and customisation of off-exchange, bilateral trading with transparent, central order books. In fact, the Exchange also offers popular semi-customisable block trading possibilities via Flexible Futures and Options. They permit a certain degree of customisation on a few variables that include expiration date and strike price. The Eurex OTC Trade Entry Service rounds out the offering with Vola Trading and Exchange for Physicals. The Exchange believes so strongly in price transparency that much of the volume that is conducted bilaterally via block trades or via the exchange's OTC Trade Entry Service for central clearing is also reported.

As the evolving regulatory landscape unfolds, with its far reaching consequences, affecting the availability of tailor made OTC structures, MSCI exchange traded futures and options and the transparency they deliver, bring a reliable surrogate for Total Return Swaps to the institutional investor.

Mitigating risks

Eurex Clearing is one of the leading central counterparties globally – assuring the safety and integrity of markets while providing innovation in risk management, clearing technology and client asset protection.

We clear the broadest scope of products under a single framework in Europe – both listed products and OTC – and offer the world's widest spectrum of eligible collateral.

Eurex Clearing serves more than 170 Clearing Members in 16 countries, managing a collateral pool of around €51 billion and processing gross risks valued at almost €15.7 trillion every month. In the first four months of 2014 we cleared over 0.5 billion derivatives contracts.

For more information on MSCI derivatives at Eurex Exchange please visit www.eurexchange.com/msci or contact Murat.Baygeldi@ eurexchange.com T: +44 207 8 62-72 30.

exchange and derivatives, onto regulated venues or exchanges. But while already more than two years in the making, progress has been painstakingly slow, creating uncertainty within the industry. European Parliament elections and the replacement of the European Commission – and with it Michel Barnier,the commissioner responsible for MiFID II – mean little headway is likely to be made in 2014.

The legislation – which the EU estimates will cost more than €700 million ($976 million) to implement – is expected to come into force in late 2016, in spite of the widespread recognition that trading technology has led to increased liquidity and market participation, more efficient price formation, reduced costs and tighter spreads. Following extensive consultation, draconian proposals in MiFID II were rolled back, giving some stakeholders cause to believe that the resulting controls will ultimately be proportionate and reasonable.

Rules thrashed out in Strasbourg in January will see tick sizes – the minimum price movement of a trading instrument – standardised and require HFT firms to have effective systems and controls in place, such as 'circuit breakers' to halt the trading process if price volatility gets too high.

Plans for speed limits

To minimise systemic risk from rogue algorithms, they will have to be tested on venues and authorised by regulators. Records of all placed orders and cancellations of orders would have to be stored and made available for inspection. In addition, firms which exceed a certain ratio of orders to executed trades will incur higher fees.

Significantly, controversial plans for so-called speed limits to slow down automated trading and discourage quote stuffing – the practice of placing an unusual number of buy or sell orders on a particular security and then immediately cancelling them – were dropped from the deal struck between the European Parliament and the Council of Ministers. Jettisoning the provision for a minimum 500-millisecond pause – during which orders must remain in place before being cancelled – has alleviated some of the worries about potential impacts on liquidity, and that implementation in Europe alone would simply see trading migrate to jurisdictions without speed limits.

"I'm reassured that they've removed the 500-millisecond resting period from MiFID II because it would have been quite harmful for price discovery and for competition by putting liquidity providers on the back foot," says Christian Voigt, product manager at Fidessa.

Firms and institutions that are willing to provide liquidity to other market participants may use HFT technology to feed two-sided quotes to the market continuously so that whenever someone wants to trade they can do so immediately, Mr Voigt explains. But with order updates being restricted, firms would have to quote much more conservatively to allow for underlying price volatility.

"It is challenging for us as developers of trading technology, because there is still some uncertainty around the finer details," he says. "Overall, though, I think regulation will benefit markets. Although implementing new regulation will create costs for market participants, we have to always keep in mind that it's in everybody's interest to create strong and resilient financial markets as a whole. I'm confident that legislators will introduce sensible rules which balance all sides and allow the industry to continue to innovate and make markets better."

Global spending on technology to increase trading speeds jumped to $1.5 billion in 2013, almost double the 2009 figure

Faster technology

One of the issues facing regulators is keeping pace with advances in technology and the ways in which it is employed, and the proliferation of HFT from equities to trading of FX, derivatives, commodities and virtually every other financial instrument.

The TABB Group calculates that global spending on technology to increase trading speeds jumped to about $1.5 billion in 2013, almost double the 2009 figure. Latency – the length of time it takes to execute a transaction over an electronic communications network (ECN) – is being slashed almost daily.

From the turn of the century it has been reduced from seconds to milliseconds, routinely, or microseconds (millionths of a second) at the cutting edge. This winter saw CME and NASDAQ launch the lowest-latency link yet between Chicago and New Jersey, a chain of microwave towers flashing data the 1,466 miles there and back in just 8.5 milliseconds, halving execution times.

Much of regulators' focus has been on the high-profile disruptions of equities in which HFT has been implicated, such as the May 2010 flash crash on Wall Street. However, HFT firms' share of equity trading volume is falling while their share of FX and derivatives globally is growing rapidly. According to the Aite Group, HFT now accounts for more than 40 per cent of spot FX trading volume, a rise on almost nothing 10 years ago. The spot market has grown by 38 per cent since 2010 to $2 trillion a day, contributing about

Nicolas Boatwright, Managing Director, REGIS-TR

The reporting of collateral and valuations by 'financial counterparties' and 'non-financial counterparty+' institutions will start on 11 August 2014, as required under EMIR [European Market Infrastructure Regulation]. The data fields will highlight to the European Securities and Markets Authority [ESMA] and national competent authorities the relative exposures of both counterparties to derivative trades. Data reported to repositories should therefore include fields confirming these exposures, giving regulators a comprehensive view, including in respect of collateral exchanged. While daily valuation and collateral information is not subject to reconciliation, market participants will need to correctly reflect those values.

REGIS-TR has developed dedicated messages for both counterparty flows according to EMIR technical standards, and some market participants are already reporting this information. However, challenges for market participants remain, such as implementing calculation engines for mark-to-market, mark-to-model and collateral valuation, as well as the appropriately segregated exchange and valuation of the relevant collateral.

Additionally, uncertainties still exist, and there are concerns around how to report collateral, how to value OTC trades that by definition are difficult to price daily, whether variation margin is included in the calculation of mark to market and the fact that clearing members report based on positions held with the clearing house, while reporting on a trade basis vis-a-vis their clients.

While REGIS-TR is ready from a technical point of view, market participants expect clarification or endorsement from ESMA on a number of points outstanding, and they will then be able to transpose the requirements into reporting models. REGIS-TR's philosophy of interoperability with the leading suppliers in the value chain should help alleviate some of this burden for participants, whether they report all of the relevant fields directly or delegate some or all of the work.

40 per cent to the surge in global FX market activity to $5.3 trillion daily, Bank of International Settlements (BIS) figures show.

BIS attributes the surge directly to the increased use of algorithmic trading and execution strategies, and the rising participation of specialised HFT firms in the FX market. Overall, exchange-traded derivatives volume rebounded in 2013 after plunging in 2012 – led by commodity derivatives – but BIS figures show this market is dwarfed by over-the-counter (OTC) trade.

Questions over liquidity

High-frequency firms have been moving into major emerging market currencies, driven by the diminishing returns of the big 10 caused by overcrowding and narrow spreads – as well as regulatory uncertainty. But as spreads even here converge with those of advanced economies, HFTs are seeking out the less actively traded currencies of Central and Eastern Europe, Asia and Latin America.

These developments raise a question over the main argument against regulation – that HFT is inherently beneficial for liquidity. While the low penetration of HFT in emerging markets is undoubtedly a major pull, just as important are the significant pools of untapped liquidity.

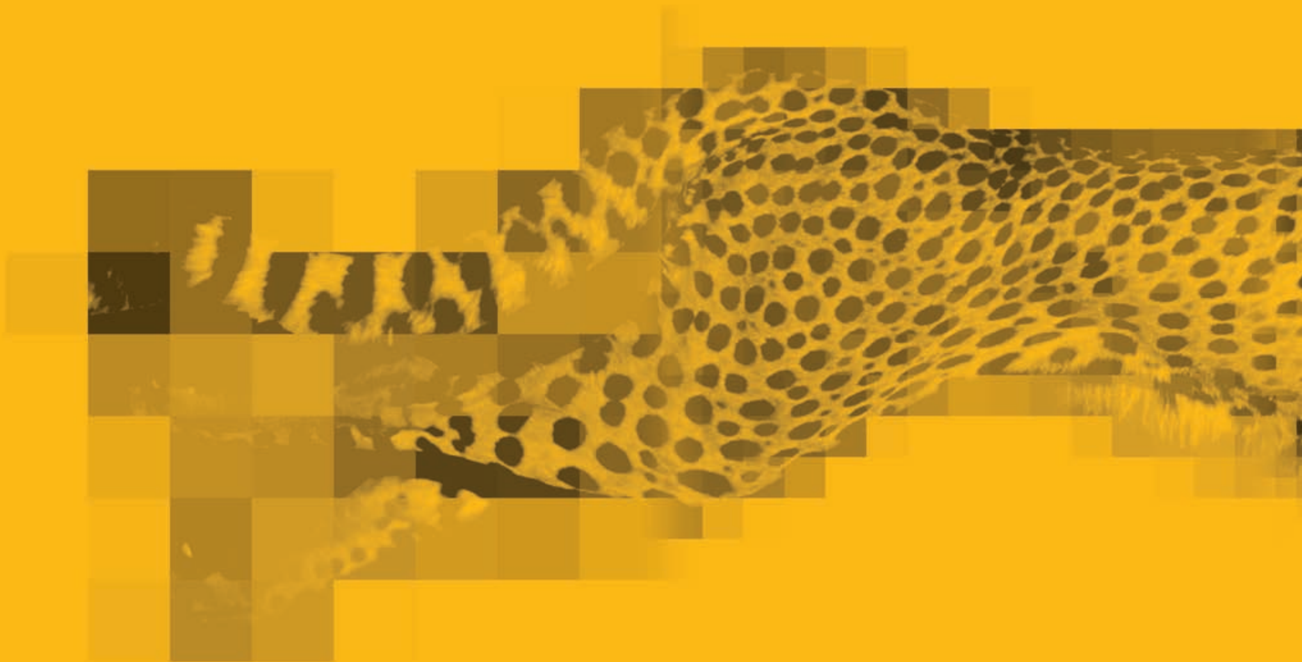
"I think it is reasonable to ask the fundamental question of whether HFT is adding to liquidity. It's adding to turnover, but turnover does not always equal liquidity,'' says Richard Metcalfe, director of regulatory affairs (capital markets) at the Investment Management Association.

"True liquidity is the capacity of the market to absorb orders, preferably in large size, without everybody reacting sharply or the price pinging around all over the place. It all comes down to liquidity.

"So I'm neutral-to-positive on regulating HFT. Your typical real money manager is not likely to be putting in a lot of orders only to cancel them within a few milliseconds. Restricting the ratio of orders to actual executed trades is not likely to have a huge impact on most real money managers and in some ways might actually clean up the price formation process. There might even be less volatility, at least in the short run.''

Metcalfe says the fact that algos have to be tested is also sensible given the flash crashes of recent years.

The big unknown is regulatory arbitrage – will HFT firms seek to avoid restrictions by migrating to non-regulated markets? The jury is still out on this question simply because throughout its short history, HFT has operated unfettered – until now.



High-speed data

Hazel Sheffield delves into the world of microwave technology, an emerging service that is promising super-fast speeds for data transfer – but it has yet to be fully developed and comes at a high price

When fibre-optic technology was introduced more than a decade ago, many market participants thought they would never find a faster way to trade. But in the last year or so, microwave has increasingly been on the agenda for firms for which every millisecond makes a difference.

London-based Colt Technology Services started fielding interest from European clients about faster ways of transmitting electronic data three years ago. It first looked at ways to reduce latency in its fibre network by reducing the number of 'hops' in the processing of data as it went through the network and sterilisation delay by using better and higher volume interfaces.

But soon Hugh Cumberland, solutions manager for financial services at Colt, was being asked about a way to harness different electromagnetic waves in place of light frequencies, by using microwave technology. A system of microwave transmitters had been growing between Chicago and New York in the United States. Why, firms asked, could the same not be done in Europe? "People said Europe would be next, and along it came," says Cumberland.

Last year, Colt – working with another technology provider, Custom Connect – developed and launched a microwave network between Basildon, United Kingdom, and Frankfurt, Germany, and back again

MARTIN HARVEY/GETTY IMAGES

that currently has the lowest latency of any in Europe. Colt chose Basildon because it is the home of the IntercontinentalExchange data centre, which hosts Eurex and some of the derivatives markets, including Liffe. And it was not the first: when Colt went to press, the New York-based firm Perseus revealed it had already launched a London-to-Frankfurt microwave link in October.

Wireless science

The science is simple: electromagnetic waves travel faster through air than through glass. Fibre-optics firms such as Colt previously sought to cut latency in fibre networks by digging up the roads to straighten out kinks or loops in the route. Microwave goes one better by following the line of sight. So, rather than having to follow a railway line or a road, or go around a lake, it takes the shortest route between two data points, thereby reducing the propagation delay.

The improvement on latency is impressive. Using fibre, the round-trip delay from Basildon to Frankfurt is less than 10 milliseconds, or a tenth of the time it takes to blink your eye. Using microwave, it is less than five milliseconds.

"In a twentieth of the time it takes you to blink your eye, the data goes from Basildon to Frankfurt and back again by microwave," says Cumberland.

TERADAT SANTIVIVUT/GETTY IMAGES

Telecommunication masts with microwave links. Microwave technology can send data from the UK to Germany and back again in less than five milliseconds – a twentieth of the time it takes to blink an eye

The technology is not new: microwave was once used to carry phone networks. Ancient microwave infrastructure is everywhere – there is still a cluster of (mostly defunct) microwave dishes covering the top of the BT Tower in London. It is a reminder that the microwave providers are engaged in a scramble for the best space. With line-of-sight technology, the person who can put a microwave dish on the tallest location theoretically has the advantage. "Once you've put your dish on the top of a building, you have to have a straight route end to end. That's a pretty binary position. You're on the best physical spot or you're not," says Michael Cooper, chief technology officer at Radianz.

Each microwave tower – and there are 13 between Frankfurt and Basildon alone – has an antenna in each direction and a cable linking the two. Bad weather can result in the antennae becoming misaligned. The sun's rays, especially at sunrise and sunset, can interfere with the microwaves, and large bodies of water, such as the English Channel, are especially problematic. While over land the scatter from microwave is constant and can be accounted for, scattered beams can bounce off bodies of water at random, interfering with the quality of the signal. Microwave networks need to be checked regularly to ensure that the equipment is in working order. And this is where the concerns start.

The cost of care

The cost of maintenance far exceeds what is needed for fibre, which – once in the ground – can last for years without being touched. Some market participants report costs of up to 10 times the cost of fibre, restricting the number of players in the market. "If we sell a fibre circuit to a customer, we price in the thousands; if we sell a microwave circuit to a customer, it's tens of thousands," says Cumberland. As such, only traders with extreme latency-sensitive strategies are likely to find microwave worth the cash. These include traders of arbitrage strategies, market makers and algorithmic traders – the kind of high-frequency traders that regulators have frowned on in recent years.

> Companies are looking at ways to roll out microwave technology across longer distances

The handful of providers playing to this crowd also has to be mindful of the regulatory environment. "There's a regulatory backlash in Europe against high-frequency trading," says Cumberland. "Some data centres will probably stay where they are, but there's always a risk that someone might move a venue."

Then there is the old issue of bandwidth, which eventually forced telephone providers to move from microwave to fibre. Fibre routes typically sell one- or 10-gigabyte connections to their customers. Microwave offers much lower bandwidth, as little as 10 megabytes a time, for half the latency of fibre.

With so little bandwidth available, few traders are using microwave technology in isolation. High-frequency traders will prioritise data that needs to go fastest by microwave

Gary Pettit, Executive Managing Director of Global Financial Futures, ICAP

Despite low volatility in underlying markets, leading to reduced hedging and risk-taking, ICAP is taking advantage of its independent status to offer clients the right solutions in the right products at the right time.

Our success in the recent period has been built on bringing customers superior access to virtually all exchange-traded futures and options contracts via our membership of major derivatives exchanges globally. Our range of derivatives services flow through the trading process, from analysis and commentary to execution and post-trade portfolio administration.

This year, there has been growing investor interest in trading of on-the-run cash sovereign bonds against futures, and we are positioning to respond to demand for liquidity in new markets such as CME Europe's recently launched FX futures.

Elsewhere, volatility in interest rates remain low, but we are starting to see more activity in US rates contracts, amid expectations that the Fed will lift its benchmark rate sometime soon. Of course, in Europe that move is probably a little further down the line!

We have seen many of the world's biggest hedge funds coming to us for post-trade processing, and we have been pleased to be able to work with them through our unit Traiana, the leading provider of pre-trade risk and post-trade processing solutions.

In November, ICAP Futures and Options selected Traiana's Harmony Network for exchange-traded derivatives for its client connectivity layer. That brought the total number of futures commission merchants on the Harmony Network to 13.

From banks and insurance companies to global macro and hedge funds, CTAs, pension funds and other active investors, our customers use a growing array of futures and options contracts.

Customers can trade with ICAP over the phone or through a range of electronic trading mechanisms. We put the firm's exchange memberships at customers' disposal with an assortment of direct market access and multiple ICAP-supported trading portals.

and send the rest by fibre. If there is sunspot activity or difficult atmospheric conditions on its microwave network, the trader can fall back on fibre. "Microwave might not be a competing technology, but a complementary one, which addresses specific issues," says Cooper.

Moving to millimetre

The most recent splash in microwave technology has been the millimetre wave, at the high-frequency end of the microwave spectrum. In January, the London Stock Exchange (LSE) launched a millimetre-wave route between its London data centre and the Equinix data centre in Slough, LD4, in response to client demand. "We looked at microwave, but with millimetre wave you get a lot more bandwidth, so our clients are able to send much more data, covering more asset classes than microwave," says Nigel Harold, head of IT business development at LSE. "Some clients prefer to build their own networks, but because of the cost of setting it up and running it, there are benefits to a managed service that allows clients to share costs."

Millimetre wave has a higher bandwidth than microwave, but travels shorter distances. Its small antennae are suited to metropolitan areas, whether rooftop to rooftop in New York, or out to Slough through a number of connections. Millimetre technology was originally developed in the 1970s, just after microwave, and as such was hit by fewer regulatory requirements and can be cheaper for new providers to offer. Its results can be impressive: LSE said its millimetre wave cuts latency of its fibre route by 40 per cent. Demand has been so good that the exchange is already looking at completing the route between London and Basildon. Could microwave one day offer traders high-speed links across the globe? In the race for speed, companies are already looking at ways to roll out microwave technology across longer distances.

The Atlantic Ocean is one puzzle. While existing towers were used to cross the English Channel, getting transmitters and receivers located tens of kilometres apart across the difficult environmental conditions of the Atlantic is a new challenge. "I've heard people talk about solar-powered drones and hot-air balloons and helium balloons and reflective balloons… There's talk of low-orbit satellites," Cumberland says.

It is unclear if any solution could be technologically reliable enough to be commercially viable. But just as Colt discovered when it launched its European route, providers may not know what private companies are up to until they look to break new ground themselves.

Trade reporting misfires

With a proliferation of trade repositories, and numerous differences between US and EU rules, the industry needs a primer for trade reporting, writes **David Wigan**

Trade reporting under European legislation came into force on 12 February, but as the process of submitting derivatives trades to repositories begins in earnest, it is clear that challenges remain for market players and regulators. Key differences between United States and European requirements have made it hard for firms to achieve any real operational efficiencies as they implement the new requirements. The most significant among these is the fact that while the US only called for reporting of over-the-counter (OTC) derivatives, Europe included exchange-traded derivatives in the requirements as well. In addition, while both sides of the trade are required to be reported under the European Market Infrastructure Regulation (EMIR), in the US only the dealer must report.

The level of confusion over the requirements in Europe was illustrated when updated Q&As from the European Securities and Markets Authority (ESMA) were published just one day before the requirements took effect. It was only made clear who was required to

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report on 19 December, less than two months before the go-live. It became apparent, however, that firms were permitted to offer reporting as a service to clients, and many have opted to do so.

"Some of our clients are comfortable handling their own trade reporting, but others are not equipped to take up the challenge and we have decided as a business that it makes sense to offer that service," says James Wood-Collins, London-based CEO of Record Currency Management. "That has meant significant cost and a surprisingly large amount of time required from senior management to get the process up and running."

Under European rules there are a minimum of 26 items of counterparty data that must be reported and 59 items of data relating to the trade itself.

In addition (and unlike in the US, where mandatory real-time swap reporting has been live since the end of 2012), both OTC and exchange-traded

Efficient and user-friendly solutions for EMIR reporting

Nicolas Boatwright
Joint Managing Director, REGIS-TR

Although the time between our approval in November 2013 and reporting start date in February 2014 was a mere 90 days, participants were able to engage in a 'trial period' with REGIS-TR for considerably longer. Our test environment, a mirror image of our production system, had been available since 2012; we were also the first trade repository to publish fee schedules and contracts and had been on the road extensively during 2013, helping to inform the discourse at more than 80 conferences, trade events and roadshows. To the greatest extent possible, we tried to help prepare those with EMIR reporting obligations well in advance.

A number of high-volume financial institutions completed their on-boarding with us in good time. However, there was a long tail of participants who were not ready in time, largely because either they were more restricted in resources (in the case of the smaller firms) and/or because it was less clear to them that they would fall within the scope (the non-banking sector). This lead to a challenging high volume of applications for trade repositories to process very late in the day, and while all applications were soon up to date, today we still receive a steady flow of account-opening requests where some market participants are not ready to report their derivative trades. The industry estimates there are more than 1,000,000 participants with EMIR reporting obligations, yet as of 1 May 2014, only one quarter of that number of Legal Entity Identifiers – the code needed as a prerequisite to register a trade – had been issued.

Long-term strategic value

We expect many to stay with their direct reporting set-up while others will opt for delegated reporting via a third party. For some, the onset of systematic reporting of collateral and valuation in August 2014 may render certain delegation scenarios less appropriate. REGIS-TR participants concerned about submitting sensitive valuation data to their delegation provider can avail of a partial model whereby their provider continues to report the mainstream trade details to REGIS-TR, complemented by the collateral and valuation reporting that they can report to REGIS-TR.

REGIS-TR is already looking to the longer term, working on delivering solutions our customers will be looking for later down the line. Our aim is to offer optimal long-term strategic value.

Some of the flexible reporting solutions foreseen in our initial product design are already proving prescient as participants reach out to us to discuss features they particularly like.

We have a number of strategic partnerships (including SunGard, Tri-Optima, Abide, Bloomberg and SmartStream) that aim to provide participants with as many flexible options as possible.

REGIS-TR is also in a unique position owing to our parent organisations. Through the Deutsche Börse and BME groups, we have expertise at all levels in the derivative value chain from trading, clearing, collateral management, valuations and market data and, of course, trade reporting. Many of our participants already had long-standing relationships with Eurex, Mefex, Xetra, Clearstream and/or Impendium, and becoming a participant of REGIS-TR was a natural extension of that existing value chain. The same proposition is proving to be valuable for wholly new participants to the groups.

Customer servicing is close to our hearts and we are now in the process of implementing state-of-the-art telephony and incident-management platforms as additional tools in our pursuit of service excellence. Our participants value our multilingual relationship-management team across Europe, complemented by our technical helpdesk and the availability of reporting specialists. By virtue of being EU domiciled and parented, participants have expressed confidence that we are less likely to be compelled to divulge their sensitive data by domestic legal and/or regulatory bodies outside the EU.

Technical standards vs market reality

Leveraging this intra-group expertise has tangible benefits for tapping into the market reality. Although EMIR reporting started on 12 February 2014, the technical standards are still evolving and all participants in the chain are having to adapt. REGIS-TR has a robust solution in place, very close to ESMA's technical

recommendations and standards, but also flexible enough to recognise that the technical standards may need to adapt to reflect an evolving market.

In the absence of centralised prescriptive criteria, some of the fields are not reported the same way by both counterparties. This has led the industry to work together to find solutions and consider to what extent it is possible, at the level of the repository, to fine-tune specific matching requirements without undermining the integrity of the reconciliation process. Timestamp reporting, widely accepted as an unrealistic matching field, is a good example of this.

Inter-Trade Repository (-TR) reconciliation rates are low, but our systematic review of all potential causes for mismatch will see this improve over time. Less than 10 per cent of our total volume is subject to Inter-TR reconciliation (more than 90 per cent is between REGIS-TR participants), but we are advocates of the multi-TR model and the benefits of competition over monopolistic market utilities.

There also remain a number of issues that could be relatively easily addressed by clarification at regulator level, for instance the definition of derivatives subject to EMIR for Forward Foreign Exchange contracts. Participants also have a role to play. Feedback from the National Competent Authorities who are starting to look at the data suggests that there are a number of fields, clearly specified within EMIR, which participants are still needing to more accurately complete and reconciliation rates would be higher if market participants could consistently pre-match their trades beforehand. We still do not have an exact view on how many orphan trades (a situation where one of the two counterparties does not have an EMIR reporting obligation) there are.

More recently, 90 days saw the end of the time granted for participants to report all trades predating 16 August 2012 and still open – 'back-loading'. On the face of it, many of our participants had already met this requirement, taking advantage of our fee schedule waiver prior to 13 May 2014.

Initial back-loading was undertaken for 'own' transactions, but the third-party transactions came later. The staggering of the back-loading, alongside the unavailability/unsynchronised allocation of Legal Entity Identifiers (LEIs), has necessitated migration from interim identifiers like Tax IDs or BIC Codes to the permanent LEI. Indeed, REGIS-TR implements an Identifier Modification message this year to help ease this requirement. Downstream, this will assist with the reduction of message rejections and improvement of pairing rates.

Collateral and valuation

The implementation of the collateral and valuation requirement will be marked on 12 August 2014. Our platform is already designed for participants to report collateral and valuations, indeed a number of participants are already successfully reporting this information to us in line with the requirements we published in our schema in January. Similarly, it has been possible to test this functionality in our test environment since March 2013 (valuation) and July 2013 (collateral). We will also offer a partial delegation model so that participants may report valuation and collateral through a third party while reporting directly themselves, or vice versa.

We understand that publication of additional guidance will be necessary to help our participants as some issues crystallize.

The future

Looking ahead, we will complement our established product suite with attractive features to help participants further reduce the administrative burden of compliance with EMIR. Trade reporting is a nascent product and our product roadmap plans for sophisticated features such as 'super-user' access. For large corporates, it makes sense for individual business units to report directly for their individual accounts; the new regulation is seeing an increased trend for centralisation of risk management and oversight at group level, creating this need for a single user to have multiple accesses. The product roadmap continues to be informed by bilateral meetings with our participants and, in the near future, a reprise of participant working groups we established in 2013. Our participants remain the most valuable input into our product process.

Beyond EMIR, AIFMD will encourage institutions managing funds distributed in Europe to comply with the reporting obligations when they apply for AIFM approval. Other regulatory reporting requirements – REMIT, Finfrag, MiFIR and Shadow Banking – are not facsimiles of each other, and in many cases market consultation is ongoing. All of these initiatives are on our radar and form part of our strategic planning.

We have a product that, from inception, is strong in terms of service flexibility options and focused from day one on European requirements; purpose built and purer in conception. We are excited by the prospect of driving the development of our products and services over the long term and in continual consultation with our clients.

This article was submitted 90 days after the 12 February reporting start date

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REGIS-TR
EUROPEAN TRADE REPOSITORY

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The Financial Conduct Authority, which regulates London, is unlikely to sanction firms that have failed in the first weeks of reporting

swaps must be sent to the repository, amounting to a significantly higher workload.

To report, firms need a legal entity identifier (LEI). In the first weeks of mandatory reporting many firms had not managed to obtain an LEI, with bottlenecks reported at trade repositories amid a last-minute rush to submit registrations. ESMA and the Financial Conduct Authority (FCA), which regulates London, Europe's largest derivatives centre, have let it be known that they are unlikely to sanction firms that have failed in the first weeks of reporting. However, it is understood that the regulators' patience will only run so far. Firms are expected to make every effort to comply at the earliest opportunity, irrespective of whether they are reporting themselves or have delegated the task.

Six trade repositories are currently authorised by ESMA: CME Trade Repository, DTCC Derivatives Repository, ICE Trade Vault Europe, KDPW, Regis-TR and UnaVista (operated by the London Stock Exchange).

One of the main operational challenges centres on the codes used to identify trades, known as unique transaction identifiers (UTIs), particularly where neither counterparty to the trade is a bank. In some cases, that has left firms unable to generate identifiers or relying on electronic platforms to come up with a formula. In addition, the requirements of European identifiers are different to those of their US counterparts, which are more prescriptive.

"From a sell-side perspective there are still concerns over UTIs and their US counterpart, the unique swap identifier (USI), because there is very little consistency," says Kunal Patel, London-based principal consultant at Capco. "The CFTC [Commodity Futures Trading Commission] went first in saying what USIs should be like, but ESMA has not followed that model, and the result is that we have different jurisdictions requiring completely different formats for what are essentially the same things."

> With so many trade repositories in operation, the potential for trade-level mismatches is a major headache for regulators

Solutions to UTI issues

Some third-party vendors have come up with solutions for smaller firms having problems generating a UTI. ICAP-owned post-trade technology provider TriOptima has launched a UTI pairing service that enables firms using its triResolve reconciliation service to assign a UTI to the reconciled trades.

Such initiatives have given rise to suggestions that the industry should go down the route of choosing a single vendor to supply an identifier service – but to date nothing has transpired.

Meanwhile, there are questions over equivalence and the recognition of foreign trade repository data by individual jurisdictions. EMIR provides for recognition of equivalently regulated non-EU trade repositories.

However, technical advice on third-country regulatory equivalence, issued by ESMA to the European Commission in September, highlighted differences between the EU and US rules. Overall, it noted that the EMIR rules are more stringent on specific issues, but US trade repositories can comply with the requirements set

Nicolas Bertrand, Head of Equity and Derivatives Markets, London Stock Exchange

The re-entry of investors to the market together with regulatory changes driving business onto listed derivative exchanges is contributing to a positive environment for the industry.

London Stock Exchange Group's derivatives markets benefit from this positive trend, adding some interesting twists to the mix. Innovations such as improved market-making schemes, new listed products and new functionalities are helping to create an ideal environment where both the OTC and order-book activity can thrive to the advantage of the final investor.

IDEM, the derivatives market managed by Borsa Italiana, has benefited from the more favourable macro environment and the introduction of improvements in market microstructure and product offering across its whole product range. Both index futures and options volumes saw double-digit increases in 2013, the largest rises seen anywhere in Europe, and that trend is continuing this year. Commodities also had a record year in 2013, with more than 30 TWh [terawatt hours] traded on IDEX, the Italian power derivatives market, which is attracting a range of new players.

London Stock Exchange Derivatives Market was spun off from Turquoise, the multilateral trading facility, into a 100-per-cent London Stock Exchange-owned entity, with the idea of relaunching and refocusing it as a regulated investment exchange that is closer to the customers. The venue already offers a linked order book to Oslo Børs derivatives on top of its IOB [international-order-book] derivatives offering. Our ultimate goal is to create a derivatives market that matches our equities market, so there is a lot of scope for further development.

out in EMIR by creating internal policies that are stricter than those required by the CFTC.

The CFTC has granted substituted compliance for US swap dealers reporting non-US-facing transactions to non-US trade repositories. However, differences remain. For example, both sides recognise that mutual access is a prerequisite to equivalence, but the CFTC only allows foreign regulators access to data required to be reported under EMIR, with access to other data contingent on the provision of an indemnity, which European Union authorities are unlikely to provide to US trade repositories – known as swap data repositories (SDRs).

Other issues include the acceptance of anonymous reporting by some trade repositories and the proliferation of repositories, which at last count had hit 18 worldwide. With so many in operation, the potential for trade-level mismatches is a major headache for regulators. Officials at the Financial Stability Board (FSB) and the International Organization of Securities Commissions (IOSCO) are working on ways to harmonise data in Europe and across the 18 trade repositories.

Achieving harmony will, however, be challenging, not least because of varying requirement levels. For example, between Europe and the US there is not only a difference in who is required to report but also in what needs to be reported. European rules demand several fields of collateral information not called for in the US, including additional trading activity and counterparty information. In Europe specific information on trade modifications must be provided, a requirement not included in the US framework.

"We are working hard in respect of trade repositories, and the work is challenging because different jurisdictions have different reporting requirements and different trade repositories," says a source close to the FSB. "It made sense not to give a single firm a monopoly to act as trade repository for the whole system, but now we need to make sure regulators can collate data from all of the trade repositories in a way which enables them to obtain comprehensive and useful information."

Monitoring systemic risk

For some, the reasons for the variances between US and European rules are fundamental, reflecting the differences between EMIR and Dodd-Frank. Analysts point out that while both sets of regulations are focused on the gathering of data to monitor systemic risk, the CFTC seeks reporting that can be achieved as quickly as possible so that price data may be distributed onto a price ticker, whereas European authorities are more concerned with spotting market abuse.

"It's kind of a mess," says Hal S Scott, Nomura professor and director of the Program on International Financial Systems at Harvard Law School, and director of the Committee on Capital Markets Regulation. "You have both sides reporting to multiple repositories and issues with data formatting and sharing - these are big issues and there is a lot of work to be done."

Making the right choice

Market data is the essential component without which financial market activity cannot happen, but institutions face a dizzying array of options when looking for prospective providers, writes **Solomon Teague**

No financial institution – be it a major bank, a small hedge fund or a private investor – can start conducting business until it has decided on the source of its market data. But before that can happen, the decision-maker has to have a clear idea about what their institution needs.

"The growth of electronic trading and explosion in information means traders have to deal with a wall of data which requires more intelligent filtering," says Frank Piasecki, president of ACTIV Financial, a market data vendor. "It is quite overwhelming, not just for trading itself but as a regulatory compliance requirement."

It is easy to buy a system that provides a lot of data that will probably not be required or used, he says. Vendors may bundle services together so the financial institution ends up buying a lot more than it needs or can process efficiently. The person responsible for data procurement might not be intimately familiar with his company's trading functionality requirement at the application level.

The Goldilocks conundrum

On the other hand, traders do not want to miss out on the myriad options on offer for analytics functionality. Part of the new job of an exchange data provider is to protect clients from the stress of having to keep up with message rates and instrument count across a plethora of trading venues and their feeds, Piasecki explains. When it comes to data analytics, institutions face the Goldilocks conundrum: not too much functionality, not too little, but just the right amount. Larger institutions in particular must decide what to buy and what to build. Most firms wish to supplement third-party systems with their own proprietary technology. But few – even the biggest banks – have the resources to manage their own market data systems entirely in-house. However, many judge it worthwhile maintaining a proprietary market analysis function to give them an edge over competitors, despite the resources required to make the strategy work.

The speed with which markets evolve amplifies the challenge. The conditions a trading system was designed to exploit can change in an instant, rendering the system obsolete, and trading firms wrestle with how long the opportunity can last, says Piasecki. As they struggle to absorb the costs of new regulations and are forced to focus on their core business, banks are increasingly looking to reduce their capital markets IT budget. Maintaining their own real-time data systems in-house is an untenable strategy, he believes.

Fastest possible delivery

Those with an appetite to spend in order to glean the greatest advantages over the rest of the market are willing to pay a premium for the fastest possible delivery of market data. At this end of the market, technology vendors face an increasing challenge from trading platforms themselves, which offer direct market access (DMA) to their clients, circumventing the data aggregators. For high-frequency traders (HFTs), algorithmic hedge funds and others seeking to exploit tiny market anomalies, success or failure can hinge on the speed of a trader's reactions. For many of them those extra fractions of a second of speed delivered via DMA can be vital.

The perception that DMA is an exclusive club, open only to the most important and well-connected institutions, has triggered a regulatory debate about whether it leads to an unacceptably uneven playing field, and if so, what should be done about it. "This is nothing new; even back in the '90s there was DMA with exchanges like NASDAQ," says Jeffrey Wallis, managing partner at SunGard Consulting Services. "But those looking for DMA need to make significant investments in their systems to make it work. As long as everyone has the same access to DMA it shouldn't be looked at as an unfair advantage."

With DMA, an institution's systems must be optimised and integrated with the exchange directly. While consolidated data feeds standardise the user

CRISTIAN BAITG/GETTY IMAGES

interface for ease of application, each trading venue itself has its own unique taxonomy. DMA to each exchange must therefore be arranged individually, a significant undertaking for an institution wishing to receive data fractions of a second faster than competitors.

The differences between trading platforms are only becoming more pronounced with the growth of more complex instruments, such as, most recently, the advent of centrally cleared over-the-counter (OTC) derivatives. And while regulators might wish for more standardisation among platforms to reduce costs and increase transparency, it is in the interests of exchanges to maintain their proprietary taxonomy as it makes their relationships stickier.

The next stage in the battle of the market data providers will see trading venues themselves expand their offering to complement their speed of delivery with improved analytics. "The trading platforms and trade repositories have a tremendous opportunity to provide more analytics on top of the data feeds they already provide," says Wallis. "The institutions that figure out the best way to do that are going to have a real advantage."

Whether or not to invest in the DMA route is a decision every institution can make for itself, says Wallis. "If we want to only focus on creating a level playing field, that will stifle innovation. We have to decide what is more important: advancement or equality?" Regulators must be satisfied that everyone has equal access and knows it is available so they can make the right choice for their business, he maintains.

For those not needing the fastest and lowest latency feeds a consolidated provider may make more sense. The number of trading venues is growing all the time and most traders do not compete directly with the HFTs and algorithmic funds typically using DMA systems.

Faster data

The bulk of market data will therefore continue to be delivered via data aggregation systems. Speed is relative, and today's consolidated feeds still provide more and faster data than the best systems would have delivered 10 years ago.

The best market data systems should provide excellent performance, in terms of being reliable and low-latency, suitable for huge institutional traders such as the top-tier banks. They need to provide a suite of analytics tools to make sense of the data they submit, while having the flexibility to be not only compatible with but complementary to the proprietary systems used by the big institutions. Crucially, the data must be of the highest quality: maintaining a clean and up-to-

date database is one of the key challenges in market data provision given the speed at which data changes. It is no good having the most sophisticated models and cleverest algorithms if they are being fed with inaccurate or incomplete data.

Data navigation is another imperative. As the quantity of data required to monitor markets increases, the ease with which the data can be sorted and filtered becomes increasingly important. Vendors must ensure the application programming interface is simple, making it easy for users to complete complex tasks. "Some vendors' APIs [application programming interfaces] look like they are stuck in the 1960s," says Piasecki.

The proliferation of exchanges, in particular, is increasing the cost of connectivity, as traders seek to keep as many options open as possible to maximise their chances of locating pockets of liquidity.

Regulatory developments have exacerbated the problem by requiring firms to diversify their suppliers, says Piasecki. While in some cases that might be beneficial, in others it leads to unnecessary expenditure. Just keeping pace with Know Your Customer and the Securities and Exchange Commission's consolidated audit trail requirements is a monumental information-processing challenge, given the volumes of trades across the plethora of venues being used by modern financial institutions, he says.

Big not necessarily better

Making the right decision requires extensive due diligence. "There are a lot of technical and content options but they aren't all best in class for everything. It is important to understand what each vendor does well, and how they maintain their competency overtime," says Piasecki. "In particular, you need to understand their approach to R&D [research and development] and how data behaviour is treated. Are they capacitising their systems into the future so that you will not see system breakdowns as markets return to health? A lot of systems were built some time ago and may have been excellent in their time, but there needs to be continual investment to keep them relevant."

Size is not a panacea. "Big is not better, big can be slow and unresponsive when you need to be nimble," points out Piasecki. If a new trading venue becomes available and a client wants to collect data from it, analyse and trade off it, its data provider must obtain the relevant approvals and create the appropriate feeds. Completing the necessary processes to bring it into the system may take larger vendors months or even years, while a smaller provider may be able to onboard the new venue within weeks if their technology is adaptable.

"The challenge of staying on top of market days is certainly increasing – not quite exponentially, but certainly it is increasing," says Louis Lovas, director of solutions at OneMarketData. "As more firms use algorithms to trade and increasingly sophisticated trading strategies it is getting harder to deliver returns, forcing traders to look outside the box for new opportunities."

Traders push the boundaries

The electronification of trading has increased transparency and made it easier to see when things go wrong, says Piasecki. That can mean human or system errors becoming far more significant problems than they once might have been, leading to events like the May 2010 flash crash, he says. "Before trading was conducted electronically there were similar problems, but they were easier to cover up or deal with privately," he says. "Automation has made problems in trading far more visible."

> The proliferation of exchanges in particular is increasing the cost of connectivity

There is no doubt market data technology will continue to increase in sophistication and scope as traders push the boundaries in their strategies. Data speeds have increased as delivery migrated from fibre-optic cables to microwaves to lasers in what Wallis calls "an arms race to the speed of light". As delivery inches towards this theoretical point beyond which further improvements will be impossible, market participants must prepare themselves for innovation to find a new outlet.

The bar will continue to be raised, but with the quality of analytics replacing speed as the principal driver, says Wallis. "Sometimes it is better to be right than fast, and as the cost of delivering data at the fastest speeds declines, analytics will become the new frontier." And as always, those who do not invest in the best systems get left behind.

This is already starting to happen. Rather than endeavouring to get the same data as their competitors more quickly, traders are turning their attention to entirely new data sets. "We are going to see more firms looking at things like social media sentiment and how this impacts markets," says Lovas.

As traders search for alpha and vie for an edge on their competitors, there is also an increased interest in transaction cost analysis as they try to boost returns by minimising cost via increased efficiency. This trend, which started in the equities market, has become more prevalent in other asset classes such as futures and currencies, says Lovas, and vendors are set to increasingly compete to meet this growing demand with new and sophisticated tools to improve that analysis. ○

Well connected?

Money and efficiency are being needlessly sacrificed due to poor connectivity across trading desks and exchanges. **Hazel Sheffield** explores the solutions

When the collateral management team at Lloyds Banking Group started to look at ways to improve their pre-trade infrastructure last year, they discovered a tangled web. Over the past decade, the firm had added new calculations and different market connections on an ad hoc basis. Five years ago, they had started pricing-in their own credit quality (debt value adjustment), the credit quality of their counterparties (credit value adjustment) and the cost of funding over time (funding valuation adjustment). Then two years ago, they added connections to price-in the impact of risk-weighted assets, or RWA, over the life of a derivatives trade. When the dust settled on margin requirements finalised by the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO) in September, it

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became imperative to have a system in place that was able to calculate how much collateral was needed to meet all requirements.

"The BCBS-IOSCO rules have helped focus the mind on understanding the cost of collateral and initial margin that we have to come up with," says Peter Left, head of collateral organisation at Lloyds Banking Group. "We need to bring all these together to understand the full cost of any transaction we're being asked to undertake, and to make sure we have priced-in a sufficient return to cover all of those costs and get a good enough return for our investors."

Lloyds is not alone: much of the sell side is tangled up in expensive connections that are often duplicated across trading desks. While firms have solid pre-trade analytics systems, they are less able to analyse pre-trade risk by pricing-in credit valuation adjustments, debit value adjustments, funding valuation adjustments and RWA – partly because they are adding everything up separately. "The sell side have created this albatross of connectivity and that has added costs and unnecessary complexity," says Geoff Patsch, global head of sell-side execution and order management systems at Bloomberg.

A wholesale change is needed in the way the sell side thinks about risk management

Cost benefit

With the path forward a little clearer, the sell-side is waking up to the cost benefit of consolidation, which could be significant. While one broker priced the total cost of ownership of market connectivity at €300,000 ($415,000) annually per market, others think that might be conservative. "In my opinion, for a larger regional or global broker, €300,000 is on the low end, depending on the complexity of the network that they're managing," says Patsch.

The size of the firm is a key factor in finding the right pre-trade solution.

Big derivatives houses and major investment banks tend to develop proprietary infrastructure. Left knows of four or five investment banks that have invested in setting up their own infrastructure. But local brokers in European markets have typically favoured vendor-based processes both for internal business solutions and in the execution solutions they offer clients.

Proprietary and vendor-based solutions share the same goal: to create one place to bring the pricing of all elements together, allowing firms to make the optimal decision on trade allocation. Firms need to find ways to minimise the lifetime costs of maintaining the derivatives transactions that they must undertake to support the hedging of their balance sheets and their customers' balance sheets.

When Lloyds came to look at consolidation 12 months ago, the collateral management team issued a request for pricing in the market and quickly realised that there was no existing vendor solution on offer. "Through the request-for-quote process we realised that Markit already had a lot of the capabilities we needed and could see the value of developing a product with us that could be used for other counterparties," says Left.

After signing contracts in June 2013, Markit and Lloyds set up a proof of concept in August and have been building server farms to add capability ever since. At the time of writing, the full product suite was expected to be ready in May 2014. "There's a lot of testing," says Left. "Given how much data you're handling, it's not something you can buy off the shelf. Even if you could, it would take time to plumb it into your system."

Left describes Markit's Integrated Resource Management system as a cube containing data at its most granular that calculates all the different scenarios at each trading level. The outcomes can be recombined to allow for what-if analysis. Despite the large volumes of calculations required, these are fairly simple to perform in an overnight batch process. However, creating a user-friendly interface through which to view and understand those calculations is more difficult and potentially more costly.

While Lloyds is investing now to speed up the development process, the vendor solution means it shares the overall costs of building and maintaining the service across Markit's client base. "I'm hoping that since we've gone to a vendor we can share the costs across many customers," says Left.

Break down silos

The number of clients looking for such solutions is likely to increase in 2014 as the sell side realises that, rather than seeking out technical solutions, a wholesale change is needed in the way it thinks about risk management. Firms should start to break down silos of connectivity and look at their businesses holistically, Patsch says, taking account of all the different vendor and proprietary solutions they have acquired. Connectivity, rather than being a function, should become a commodity with different qualities depending on the requirements of the broker. While a statistical arbitrage desk might have different connectivity needs from a risk perspective than a flow desk, brokers should look to the highest common denominator insofar as what is needed and use that across the desks.

"Consolidate the number of systems that are supporting the different desks in order to reduce the total connectivity costs associated with the firm," says

CASPAR BENSON/ALAMY

Patsch. "So if you have a big fat pipe to the exchange to support your statistical arbitrage trading strategy, that, from a capacity perspective, should also be able to support the flow desk."

For example, if a flow desk is managing a connection to the Swiss exchange where fixed income and derivative products are managed, both the fixed income and the flow desk may have developed separate connections to that exchange. In theory, by connecting the two desks through the same access point, brokers can halve the cost and potentially reduce the staff needed to manage those connections.

A tailored approach

A one-size-fits-all approach may not be suitable for everyone. Many firms do not have the resources to do away with their existing infrastructure and start from scratch. But vendors are showing awareness of this. Both Markit and Bloomberg offer wholesale services to manage the sell side, such as Patsch's full, front-to-back sell-side execution and order management system and Markit's Integrated Resource Management. But they have also developed stand-alone execution management, pricing tools, pricing engines and connections to several liquidity providers that give firms the ability to plumb in connectivity where it is needed. "One of the keys here is being able to work within the current environment our clients have because what you don't want is a wholesale change that requires a new build," says Thomas Severance, managing director at Markit.

With help from vendors, firms of all sizes are able to simplify and consolidate their pre-trade relationships to free up collateral for trading. "We go into the transaction hopefully having a good idea of what our lifetime costs are," says Left. "Therefore we know that we're doing a trade that's a positive return on capital not just today, but over its life." ○

A new wave of competition in the European equity derivatives market

Competition is hotting up as more trading platforms emerge to do battle across national borders while clearing houses merge to grow trading volumes and cut costs, writes **Maria Korolov**

The past 12 months in the derivatives markets have been characterised by transition: new regulation, big mergers, economic recovery and fresh business models. Meanwhile, the equity derivatives space has found some much-needed stability, with the total notional value of single stock futures and options traded on exchanges in Europe, Africa and the Middle East reaching $2.65 trillion in 2013, only marginally changed from 2012's $2.7 trillion, according to the World Federation of Exchanges. The latest figure is, however, well below the $3.5 trillion notched up in 2011.

Also, some of the old differentiators have faded. For example, speed to market has become relatively less important. "It's no longer a differentiator," notes Steve Woodyatt, CEO of London-based Object Trading, which provides a connectivity gateway to global trading venues. "Being first to market doesn't give the dollar profit that it used to just by getting there a microsecond faster. So people are going back to product and trading system innovation for new alpha-creating strategies, and this is where equity derivatives are important. People were making their alphas on latency arbitrage on single products but these days it's cross-product, cross-asset and cross-geography that's driving the profitable strategies."

Another example is that of equity derivatives clearing, which, in the past, centered around cost efficiency. "These days, it comes down to the ability to offset intraday positions," says Woodyatt. "If you have exposures that will naturally net, then they will offer margin offsets to release that capital and allow you to go trade elsewhere. This becomes tricky if your trades are on different platforms. NASDAQ's pitch is exactly that: you'll be more capital efficient if you come to us."

There is also greater competition, with LCH.Clearnet, Eurex Clearing and ICE Clear Europe offering many of the same products. Meanwhile, a new entity, EuroCPP, has emerged, following the completion of the merger of the Netherlands-based European Multilateral Clearing Facility with European Central Counterparty at the close of 2013.

"I would expect to have two or three leaders emerge," says Georges Ugeux, chairman and chief executive of New York-based Galileo Global Advisors and a former NYSE executive for Europe. "It's too early to say who is going to be among those leaders."

Horizontal fragmentation

Over the past few years, individual markets have been increasingly fragmented as more venues have begun competing against one another, often across national borders. And it's not just exchanges – there is now competition from multilateral trading facilities, systematic internalisers, and dark pools as well. In fact, combining clearing houses has been one of the driving forces for many recent exchange acquisitions, says TABB Group

analyst Radi Khasawneh, the biggest example of the past year being the purchase of NYSE Euronext by IntercontinentalExchange (ICE). The deal more than doubles ICE's derivatives trading volumes and adds European equity futures and options to ICE's product offerings.

"ICE is really a game-changer," said Ugeux. "It sends us a message that the cash market is a commodity. There is little competitive advantage except for the brand, the listed companies and the regulations. The fact that the NYSE would be bought by a derivatives market sends a very clear signal of where the leadership is."

Competing across national borders

In fact, the purchase of the NYSE itself was not the main point of that merger. "What the ICE wanted to do is buy Liffe [London International Financial Futures and Exchange]," maintains Ugeux. "It's the only game in town to compete with Eurex in Europe."

As a result of merging management functions, technology and operations, the combined entity expects to be saving half a billion dollars a year in expenses by the end of 2016. Around $108 million in synergies was already realised by the end of 2013, seven weeks after the closing of the merger deal, the company announced in a February 2014 earnings call.

According to analysis by Trefis, the deal, particularly the NYSE Liffe acquisition, makes ICE a favourite in the race for European derivatives market share. When merged with ICE's multi-asset derivatives clearing platform, Liffe will be able to introduce more innovative products and become an even bigger player, according to Trefis.

Equity derivatives that now go through Liffe's infrastructure for clearing will switch to the ICE platform, says Khasawneh. Liffe equity derivatives contracts, including indices and single stock futures and options, are scheduled to move over to ICE's Infrastructure in the third and fourth quarters, respectively, according to ICE.

Smaller exchanges struggling

Rivals such as the CME Group, which launched CME Europe in London in April, will have a harder time breaking in. Whereas a few years ago each country had its own exchange, with a virtual monopoly on all related trades, today all the major exchanges are competing directly against one another, expanding across Europe into new geographic markets and new products. NASDAQ OMX, for example, has its new London-based derivatives exchange, NASDAQ OMX NLX, and it bought a stake in the Dutch equity derivatives trading venue The Order Machine (TOM) in 2012.

This leaves some smaller exchanges struggling. The Vienna Stock Exchange, for example, announced in the autumn of 2013 that it would halt derivatives trading in March 2014, as a result of competition from Eurex. In addition, the exchange has engaged in merger talks with the rival Warsaw Stock Exchange. Vienna has even struck a deal with Eurex, under which the latter will list futures and options on well-known Vienna Stock Exchange indices. Eurex was already handling over 85 per cent of equity futures and options trading for Austrian stocks. Eurex is also a player in local markets – for example, it has doubled its share of French equity options, and seen growth in Spain, Italy and the Netherlands. London, also, has seen increased competition. Liffe has been adding contracts, such as the much-sought-after Royal Mail stock futures. And after completing the purchase of Turquoise, the London Stock Exchange (LSE) is now operating the subsidiary as a recognised

LARS CHRISTENSEN/ALAMY

William Knottenbelt, Senior Managing Director EMEA, CME Group

With the recent launch of CME Europe, our London-based Recognised Investment Exchange, following on from launching CME Europe Clearing in 2011 and CME European Trade Repository earlier this year, all the building blocks of our European strategy are in place.

Success here will be instrumental in driving forward the ambitions of all of CME Group, as Europe offers a tremendous opportunity as we continue to grow our market share in the region. Whilst regulatory change is driving many innovations, fundamentally we have always believed in building out market infrastructure close to market liquidity, and close to our clients.

We launched our new exchange in London with foreign exchange futures, as 61 per cent of the global FX market trades out of Europe, with 41% of the total market based here in London. The new exchange will enable customers to trade derivatives under the European regulatory regime, and accommodates regional trading practices and preferences, including membership structure.

Given what's happening with regulatory capital, CME Europe offers significant operational and capital efficiencies with a regionally relevant product offering. We will be building out our capability with more currency pairs, including options on the FX futures, while also providing the ability to clear OTC FX. This will allow our customers to cross-margin between futures and OTC to help further bring down their cost of trading.

We'll also be expanding the biofuel suite contracts we launched to include products from other asset classes. Otherwise, we are looking at contracts based around international requirements – including soft commodities, metals, energy and interest rates – but we're not looking to replicate Euribor or Bund, Bobl, Schatz. We see the exchange as effectively covering our requirements for both Europe and Asia, and the way the contract is quoted in London versus the US is proving a major draw for Asian clients. It's early days, but based on the interest the exchange is attracting, we are more optimistic than ever about CME Group's future in Europe.

investment exchange. The LSE has its sights set on expanding its equity derivatives products portfolio in the British capital.

Buy-side firms are undergoing a similar transformation. "The days where you had whole trading houses specialising in Amsterdam or whatever, I'm seeing those floors disappear," says Woodyatt. "Those who are successful are looking at both cross-geography and cross-asset trading."

Trading volume growth

Authorities have been mulling the possibility of imposing a pan-European tax on financial transactions, which could cover some or all derivatives products. Critics are worried that the result will be that trading will simply move to jurisdictions where there are no taxes, or where taxes are lower. "We've seen that most recently in Italy," notes Woodyatt. "When the transaction tax came, there was a large drop in volumes and consolidation in sell sides providing access to Italy. The data isn't in yet that taxation was driving it alone, but it was definitely a visible correlation."

For the past two years, concerns about upcoming regulations and relatively low volatility have kept derivatives trading volume growth to a minimum, and European equity derivatives volumes have moved in tandem with the underlying equity market, says Khasawneh.

This may be about to change. By the end of the first quarter of last year, cash equities fell to 41 per cent of the equity derivative volume, the lowest level in two years. "In 2013, we started to see a disconnect between the cash equities and the futures side," he explains. "Now, we're starting to see that relationship fall away as the derivatives market starts to make its own hay."

Meanwhile, as the new regulations go into effect, and new exchange-based derivatives products hit the market, trading volumes will start to increase again, predicts Khasawneh. "And you're going to see more trading on vanilla transparent contracts that go into the exchanges, so more growth in index futures at the expense of everything else."

This is already taking place. In early 2014, for example, Euronext – now an ICE subsidiary – launched a suite of 86 new single stock futures on its most liquid Euronext-listed stocks, with plans to increase the number of these products as time goes on.

FX futures: a tough nut to crack

Despite a thriving exchange-traded foreign exchange futures and options market in the United States, the CME and Eurex have found launching such products in Europe a harder task, finds **David Rothnie**

On 27 April, CME Group entered its first market outside the United States with the launch in Europe of 30 foreign exchange futures contracts as well as biodiesel futures traded on its CME Europe exchange. While it marks an important step for CME Group, it also heralded the beginning of exchange-traded FX futures in Europe. It's been a long time coming. CME Group first announced plans to launch its flagship European exchange with FX futures two years ago, and the delays it has encountered just go to show the difficulties faced by exchanges trying to crack the market for listed derivatives in Europe.

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Last October, it emerged that CME Group's plans to launch a London derivatives exchange were being held up because the Bank of England felt it could pose systemic risk to the currency trading markets. In the same week, Eurex, which is still planning to expand into the marketplace, blamed the delay on a third-party bank, CLS, through which Eurex would access the dedicated settlement system for foreign exchange known as continuous linked settlement.

CME's original application, though approved by the Financial Conduct Authority, was held up by the Bank of England over concerns posed by clearing houses to the global financial system. In autumn 2013, Paul Tucker, the Bank's deputy governor, described the institutions as "too important to fail".

Part of the reason for the hold-up and the ensuing controversy was that the FX market is seen as a square peg in the round hole that is over-the-counter (OTC) derivatives legislation. New regulations under Dodd-Frank and Basel III make OTC trading more expensive because they force banks to hold more capital, which in turn pushes the industry towards a listed environment and central clearing houses. This may be logical for long-dated illiquid swaps, which pose a systemic risk, but it does not necessarily apply to foreign exchange. Most forex trades do not pass through a central risk-management venue, such as an exchange or a clearing house. FX already has its own system in the shape of CLS, a non-profit body launched in 2002, which is overseen by the US Federal Reserve. CLS is not a clearing house, but it provides a live link between central-bank payment systems in the world's main financial centres, reducing the chance of a gridlock in the foreign exchange market.

As things stand, FX futures need to be settled through CLS, which was one of the factors said to be holding up Eurex's launch. But there was more to this than the technical issue, as many are yet to be convinced that the futurisation of FX will usher in a new infrastructure that is safer than the one it is seeking to replace.

Many are yet to be convinced that the futurisation of FX will usher in a new infrastructure that is safer than the one it is seeking to replace

The sceptics have the support of the US Treasury, which has granted FX swaps and forwards exemptions from trading and clearing requirements imposed on derivatives in other asset classes. Part of the Treasury's argument was that FX swaps were already a self-regulating market, and that introducing new trading technologies could upset the balance. Silas Findley, head of OTC clearing for EMEA at Citigroup, says: "Shorter-dated highly liquid instruments like FX are less problematic in terms of the level of systemic risk they represent in the form in which they are currently traded; the current model of bilateral trading works well. Clearing may be possible, but there is an associated cost, and with it a question of whether CCPs [central clearing counterparties] can handle the sort of heavy volume and settlement risks that characterise the FX market."

SEAN PAVONE/ALAMY

NASDAQ OMX is still planning to launch into the European FX futures marketplace

Another crucial difference between FX and derivatives in other asset classes is that clients favour physical delivery of currencies, which was one explanation for the delay in the roll-out of FX futures and options by CME, because its system lacked the functionality. In September 2013, a senior official at the Federal Reserve warned that CCPs must prove they could settle foreign exchange options by physically delivering currencies, even in stressed situations, before the product could be considered for clearing under new regulation. Again, there is a degree of uncertainty as the Fed continues to work with the issue of physical settlement with other G20 regulators.

Kevin McPartland, head of the Greenwich Associates market structure and technology advisory service, said in a report on FX futurisation, published in January 2014: "The bigger issue with FX options clearing, however, is not about clearing at all, but about settlement."

A 2012 consultation paper, published jointly by the International Organization of Securities Commissions and the Bank for International Settlements, stated that the

Michael Peters, Executive Board Member, Eurex

Clearing houses play a major role in global regulators' objective of strengthening the financial system through mandatory trading and clearing for most OTC derivatives. As Europe's largest clearing house, we began enhancing our service several years ago with the goal of helping our customers comply with the unfolding regulatory landscape. Our clearing road map includes the roll-out of the new risk methodology, Eurex Clearing Prisma, and client segregation solutions like our Individual Clearing Model as well as the launch of EurexOTC Clear for IRS. We're very pleased with clients' pick-up of our OTC CCP – even before the clearing mandate in Europe kicks in. All three initiatives have been very positively received as they address the fundamental need to realise capital and collateral efficiencies as well as cross-margining.

Based on the success of our dividend derivatives, we've expanded our listed offering. At Eurex Exchange, we've complemented our interest-rate curve, adding new Euribor mid-curve options in March, which we plan to further enhance with IRS futures in Q3. We have also further internationalised our index derivatives with offerings such as the Eurex/TAIFEX Link. We're also in the process of launching Israel's blue-chip index, TA-25, and then there's our growing MSCI index derivatives suite which helps our traders get more out of the market.

Technology is at the heart of all our activities as it enables us to develop and deliver state-of-the-art infrastructure. We upgraded our platform last year with T7 and are currently developing the new clearing system, C7, to be phased in starting this summer. With the latest release of Eurex Clearing Prisma in May, our users are benefiting from cross-margining netting effects between their listed and OTC portfolios in the interest-rate space.

Exchanges and CCPs play a key role in helping market participants fulfil regulatory obligations. We strive on all levels to better meet the needs of the financial institutions we serve – foremost to enable them to continue their business models.

clearing houses "should provide clear and certain final settlement" for all cleared trades. McPartland continued: "While this is not particularly difficult to guarantee for fixed-income product trades, it can be quite difficult to guarantee for FX options trades in a member default."

Tackling the issues

At the time of writing, industry sources said both Eurex and NASDAQ OMX were still planning to launch into the marketplace. A spokesperson for Eurex says: "We are fully committed and are working to resolve remaining issues. No statement can be given when we will be done."

Findley says: "I don't think you can read any premeditation into the fact that [certain] FX derivatives products have not [yet] moved to exchange environments in Europe. There is an issue about significantdevelopment and the cost of implementation when you already have a huge, well-functioning market."

The lack of regulatory certainty over the clearing of foreign exchange derivatives means that the problems encountered by Eurex and CME do not augur well for other participants looking to enter the market. Findley adds: "There is an element of caution from exchanges in incurring significant development costs because there is no mandate for mandatory clearing, and the US Treasury clearly recognised that the bilateral risk posed by the current market is distinguishable from other types of products, which is why it granted an exemption for some FX products."

Even though CME Europe has brought its offering to market, banks retain their doubts about whether the risk-management systems will be sufficiently robust.

Not all OTC FX derivatives are exempt from Commodity Futures Trading Commission (CFTC) trading and clearing requirements. Non-deliverable forwards and FX options were explicitly excluded from the US Treasury's exemption and the CFTC treats them as 'swaps', leaving them susceptible to trading and clearing mandates.

There is still a strong argument for some FX swaps and forwards contracts to move to listed exchanges, and the direction of travel is for forex to be settled through central clearing houses. After all, CLS settles only about 60 per cent of the global forex market, with the rest comprising bilateral market trades or those executed internally by banks. The Greenwich report adds: "The move to futures will require investors to rethink how they access the FX market, dealers to revamp business models to facilitate trading in a profitable way, and technology providers to offer solutions to help all market participants adapt and succeed in the new market." ○

A swap too far?

Or swap futures struggling to gain market share?

Exchange-traded products such as variance swaps, credit indexes and interest rate swap indexes were heralded as being the next big thing, but the transition has been slow. So what is the hold-up? **William Mitting** finds out

Some 18 months ago the industry was awash with the buzz of futurisation. Vast swathes of the over-the-counter (OTC) markets were to be converted into exchange-traded products and exchanges were set to capitalise on a once-in-a-lifetime opportunity for astronomical growth.

Today, the attitude is a little more sober. Inroads have been made into the plain vanilla interest rates market and OTC energy products that traded like futures have been seamlessly transitioned to exchange-traded products, but other asset classes have failed to take off.

On the face of it, this is a surprise. Hundreds of billions of dollars of additional margin was expected to be required to meet the punitive margining regime for uncleared OTC products, resulting in a wholesale move to a centrally cleared model. This naturally would result in more standardised products, which would inevitably be moved onto exchange, the argument went.

The decision by IntercontinentalExchange (ICE) in October 2012 to convert its OTC energy suite into futures appeared to confirm this trend, and product-development teams set about designing new contracts to meet the expected wave of demand for exchange-traded products.

Variance swaps, credit indexes and interest rate swap indexes were all touted as the next big thing in exchange-traded products. Delays to the implementation of the roll-out of swap execution facilities (SEFs) in the United States added wind to the sails of the exchanges. However, with the exception of CME's deliverable swap futures, new futures products designed to replicate products in the OTC markets have fallen short of expectations.

"We will probably end up with OTC and ETD [exchange-traded derivatives] products that will be used by different people with some compatibility," says Stuart Heath, head of the UK representative office at Eurex. "In other words, like it always has been. The big difference now though is that it is centrally cleared. The big push is the limited number of people who can access OTC clearing. The larger banks will be able to do everything, but how many smaller institutions can access the cleared OTC markets will depend on how clearing offerings are structured and whether there is a big take-up."

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The Chicago Board of Trade launched swap futures in 2001 – so the product is not new, but the G20 mandate has quickened development

With trillions of dollars in notional traded every year in the interest rate swaps (IRS) market, it is hardly surprising that this has been the focal point for new swap futures products.

Futurised products in this market are not new. Liffe's Swapnote has traded since 1999 and the Chicago Board of Trade launched swap futures in 2001. But the G20 mandate has quickened the pace of development. Eris Exchange was launched in 2012 with its standardised swap futures contracts – pure futures contracts designed to replicate the cash flows of OTC interest rate contracts. Eris has experienced more volume in its tailored Flexes, which enable users to tailor the starting and settlement dates and the quoting terms. In February, the exchange said that open interest across all of its products had surpassed $10 billion for the first time.

> Replicating the economic performance of many of these contracts is notoriously difficult, as the many failures suggest

CME's deliverable swap futures (DSF) suite has also experienced significant demand and is likely to be replicated by several other exchanges. The DSF is an innovative contract. The Chicago-headquartered options and futures exchange is offering dollar-denominated quarterly contracts expiring on International Monetary Market dates for key benchmark maturities (two, five, 10 and 30 years). On expiry, all open positions deliver into CME Group-cleared interest rate swaps.

Eurex and NLX are among the European exchanges believed to be considering launching similar contracts.

Innovation at GMEX

There will be no single product that serves the whole market and the landscape is likely to feature an array of different instruments for the various users.

Another possible model is being pioneered by GMEX, a new London-based multilateral trading facility (MTF), which last year became the latest to throw its hat into the futurised IRS ring with its constant maturity swap future. The innovation of the GMEX product lies primarily in the creation of the Interest Rate Swap Index Average Constant Maturity Index (IRSIA CMI). An index designed to reflect pricing in the underlying IRS market in real time, it will continuously display the mid-market rate of the underlying physical IRS for a wide range of maturities. Prices for the index will be compiled from a range of sources, from tradable price inputs based on market execution prices to 'heavily vetted' non-tradable price inputs from institutions within the interdealer market.

VJ Angelo, president and managing director of GMEX, says: "An IRS is a bespoke instrument that involves numerous cash flows and even in its simplest market structure cannot be replicated as a future."

Laura Bisconcin, Head of Derivatives Brokerage, Banca Akros

With large parts of the OTC derivatives markets moving away from bilateral relationships, Banca Akros has helped clients over the past year make the transition and take advantage of new opportunities.

Banca Akros offers complete, through-the-life-cycle derivative services, from price discovery to execution and clearing across futures and options.

The bank's breadth of offering in Italian derivatives gives clients confidence they are making decisions based on a complete market view. The bank complements its extensive domestic operations with derivative offerings in all major international markets. Covering risk management across equities, fixed income, interest rates and foreign exchange, clients can be sure the bank has the tools to respond to all of their derivative needs.

A key element of the Banca Akros listed derivatives business is in commodities, where it is recognised for its breadth of product offerings, efficiency of margin terms and strategic solutions. The bank is number one in volumes terms on the IDEX energy exchange, with a market share of nearly 13%. Our aim is to consistently seek out new products and strategies across asset classes and to back that up with excellent value-added services in areas including research, collateral and reporting.

Banca Akros, the investment and private banking arm of the Banca Popolare di Milano Group, recorded in 2013 a net income from banking activities of €81 million and a net profit of about €9.8 million with a core tier one at 25.8%.

The solution was to develop a unique futures contract that could be traded and linked back to an index based on real-time tradable inputs from the underlying market. Key to the success of the contract will be the ability to build an index that has credibility and the confidence of the market, but many companies in London are understood to be very interested in the model.

Also-rans

Outside the plain vanilla IRS market, exchanges have experienced less success in developing new products. CBOE relaunched its variance swap future in December 2012. Highs of 40,000 were reached in July 2013, but trading remains patchy. ICE has had great success in its clearing of OTC credit derivatives, but its attempt to launch a future based on the CDX and iTraxx index families failed after just three months, with fewer than 1,000 contracts traded. No volume has been reported in the contracts since August last year.

Exchanges seeking to launch foreign exchange products in Europe have also experienced problems, this time at the hands of the regulators. CME's European exchange was due to go live in early 2013 with a suite of 30 FX contracts as the group sought to replicate its success in the US. It ended up having to wait until late April 2014 before getting the all-clear to open the doors to its London-based exchange, CME Europe.

Eurex had also announced plans to launch in FX in October 2013. However, concerns at the Bank of England over the physical delivery of the currencies are delaying the opening. "Hopefully, all it means is a delay rather than blocking the launch altogether," says one exchange executive.

Banks are much maligned as a key factor in the slow transition to exchange-traded markets for OTC products. Critics claim they are protecting their patch in the OTC world and resistant to change. However, the reality is more complicated. Once a product is centrally cleared, much of the punitive cost of trading in OTC is mitigated. In addition, as with any new product, liquidity begets liquidity and exchanges face additional challenges in launching a completely new product based on a complex OTC contract. Replicating the economic performance of many of these contracts is notoriously difficult, as the many failures suggest.

Also, the cost of shifting to exchange-traded infrastructure from a technology perspective is high and distracting for many firms. If the cleared OTC product does the job, why try to fix it?

SEFs could be a game changer. As liquidity builds in certain instruments on SEFs, exchanges will eye the opportunity to replicate that in an exchange-traded product. But most instruments will trade on SEFs on a request-for-quote basis outside the order book.

ICE's inability to get its credit future off the ground is indicative of the harsh realities of exchange-traded OTC products. Inertia, complexity and regulatory approval are the key challenges in launching new contracts. The initial excitement has waned, but these are early days in what will be a generational process. ○

Interest rates and the white heat of competition

European exchanges have been stepping up activity and expanding to gain competitive edge, says **Gavin O'Toole**

While the debate over interest rate swap futures has hitherto largely been a United States affair, Europe is now poised for its own derivatives revolution. The segment is waking up to the opportunities generated by regulatory reform as exchange operators embark on a global expansion of listed products.

The boldest incursion so far has been made by NASDAQ OMX NLX as it challenges the duopoly of Liffe and Eurex, but other venues are now poised to launch swap futures or revamps. The market has significant potential: according to the Bank for International Settlements, gross notional volume of interest rate swaps stood at $561 trillion as of June 2013.

NASDAQ OMX launched its NLX fixed-income derivatives venue in London last year to take on the largest futures markets in Europe: Liffe, the London derivatives exchange now owned by IntercontinentalExchange (ICE), and Deutsche Börse's Eurex. NLX launched its interest rate derivatives platform with six products – existing exchange contracts, including futures on Euribor, short sterling and the

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LOURENS SMAK/ALAMY

IntercontinentalExchange purchased NYSE Euronext last November to access the European derivatives segment

German Bund, Bobl and Schatz – offering clearing through LCH. While it initially struggled to attract volume, trading in short-term interest rate futures rose in November, spurred by incentives.

Until recently Liffe, at the short end of the curve, and Eurex at the long have dominated trading. Much attention has been on Liffe since ICE's purchase of NYSE Euronext last November to access the European derivatives segment. ICE aims to sell a quarter of Euronext ahead of a listing this year, and has indicated that a priority is to split off Liffe. In December, it moved Liffe onto its European platform, and in February it took over Libor.

Frankfurt-based Eurex has also been stepping up activity while spearheading Deutsche Börse's expansion into Asia. A key development came with its backing of UK start-up Global Markets Exchange (GMEX) in a bid to position itself for an expected wave of demand as the European Markets Infrastructure Regulation (EMIR) takes effect. GMEX's planned interest rate swap index, Average Constant Maturity Futures, will be traded on the firm's London Derivatives Exchange after a launch this summer.

GMEX chief executive and co-founder Hirander Misra says: "We are doing something very left-field and we're doing it with a totally different construct. Most exchanges have taken the view that what they'll do is take the OTC [over-the-counter] market and try and fit it into the futures frameworks, creating effectively bond-style futures that don't closely align to the underlying OTC market. We've gone the other way and said: how do we bring futures markets tradeable on an exchange closer to the OTC markets and, as much as possible, closely aligned to it? When everybody's been going one way, we've gone the opposite way – but we think it works from a competition standpoint."

Jostling for priority

Other venues looking at interest rate swap futures in Europe are taking innovative approaches. Although plans by CME to begin European derivatives trading had been held up by regulators (regulatory approval was only granted in March), the Chicago giant will press ahead with 30 FX futures.

Eurex could be joined by the London Stock Exchange in launching a deliverable swap future. Others propose a futures contract that mimics a swap and settles in cash, such as Eris. Newcomer Lotce is pushing a product based on contracts-for-difference.

These pioneers are taking advantage of opportunities generated by regulatory change, but several factors will determine who will prevail. Mandatory clearing means the buy side has to open up segregated accounts at clearing houses and post collateral – venues such as Eurex have been busy getting buy-side members to open accounts – as clearing rules focus minds on cheaper hedging. Success will be influenced by margin efficiency – users will want to benefit from offsets between a deliverable swap future and an existing pool of cleared OTC swaps.

Hybrid products offer margin discrimination, because an OTC-cleared product by itself attracts higher margin requirements than a listed product – opening a window of opportunity. For the buy side, being able to post less collateral because of offsetting positions in long- and short-dated euro-denominated interest rate instruments offers concrete savings.

To encourage competition, regulators want clearing houses to clear for many venues – but whether the European Securities and Markets Authority determines them to be interoperable is another matter. Market participants tend to favour the open LCH.Clearnet model.

Anna Pajor, lead consultant in Capital Market Intelligence at GreySpark Partners, believes clearing efficiencies will be an important factor in the new climate: "At the moment, banks preparing themselves for the new landscape are looking at post-trade and clearing services, and in a similar way this may be a driver for trading venues, when people look holistically not only at the best displayed price but at what will happen after a trade."

New contracts may help to overcome the hurdle of shifting the liquidity and the open interest from an existing contract to a new exchange with a different clearing house. A key issue will be fungibility, the lack of which between contracts and existing ways of trading means slower adoption by the buy side when it comes to copycat contracts.

Misra says: "In derivatives, competition is good, but there are also barriers to entry because clearing is a big elephant in the room. And now, with the margin and capital constraint, more of the industry is looking to offset more products in the same clearing house.

"But you've got a situation now where you've got certain products traded on Eurex, cleared by Eurex Clearing; traded in ICE, cleared by ICE Clear; CME obviously with CME Clear, which also clears the Eris contracts; and NLX clearing on LCH. So, effectively you've got four different clearing houses. And even if you have the four products listed across four different exchanges, fungibility across those exchanges is limited."

Innovation and regulation

Another factor that could shape competition is how existing technology is being applied in new ways, in particular the move to migrate solutions across asset classes.

Pajor says: "Electronic trading is a key driver of success, and the whole trade in interest rate futures is getting more and more electronic. With electrification in certain instruments – in this case interest rate swaps – there will be entrants to the market."

Innovation is clearly overdue, but is the market ready for these new products as it adapts to the new regulatory landscape? New regulation means not only change but also opportunity, as firms look to reduce costs through platforms that offer lower fees and margining efficiencies. Pajor says: "What we have seen in the past two or three years is that actually regulations are helping; are creating motivation to rethink how trading is done, indirectly promoting electronic trading and investment in technology."

New regulation means not only change but also opportunity, as firms look to reduce costs through platforms that offer lower fees and margining efficiencies

Misra adds: "One of the unintended consequences of regulatory reform is that it is actually leading to more capital being needed to cover off those trades with central clearing in an era where capital is constrained. So that has spawned opportunities: the industry now needs to find much more cost-effective ways of using capital and instruments that can give them the same results. That has spawned platforms like ours."

NASDAQ has certainly been bold – but Eurex still has liquidity advantages, a key issue for asset managers. Cross-margining and the offsets available to a customer against other inventory will also be crucial.

Nonetheless, as with all change there are likely to be winners and losers in what one market player described as an imminent 'big bang, big crash' where many me-too products will be sifted according to Darwinian principles.

The key to survival, believes Misra, has to be innovation: "You are now seeing about 26 swap execution facilities registered in the US, and even if the market in interest rate swaps is huge, there's clearly not enough room for about four of them to survive over the next few years, and that's certainly playing out." ○

Caught in the MiFID net

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MiFID II could have a significant impact on commodity markets. **Rob Hartley** examines the possible implications of position limits for end users

For the world of commodity derivatives, it has been a long wait for any real detail on the revision of the Markets in Financial Instruments Directive. The reforms, known as MiFID II, started to crystallise mid January 2014, after agreement in principle was reached by European Union lawmakers at a meeting in Strasbourg. This was followed three months later with formal adoption by the European Parliament.

The new rules are aimed at a sweeping overhaul of large parts of the EU's financial markets, but it is the nuances of the regulation on position limits that gripped most traders in the world of commodity futures and options. There were a number of different elements, some expected and some not. Under MiFID II, physically settled gas and electricity derivatives contracts gained a much-sought exemption from the legislation.

Elsewhere in the energy sphere, physically settled oil and coal derivatives traded on organised trading facilities (OTFs) were also exempted, but will be the subject of an impact assessment on energy prices by the European Commission in 2018. In addition, there will be no position limits on commodity derivatives traded on OTFs for non-financial firms engaged in hedging activities.

The European Securities and Markets Authority (ESMA) will prepare the methodology on how to set the limits, which will be used by competent authorities in member states. However, the actual implementation of MiFID II is years off and will follow a detailed period of

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Physically settled oil derivatives traded on organised trading facilities were originally exempted from MiFID II legislation

consultation with ESMA. There will also be a position-reporting obligation by category of trader. According to article 60 of MiFID II, weekly reports will be required from each trading venue on aggregate positions held by the different categories of persons active on its venue.

The exemptions granted energy traders raised eyebrows among those pushing for a blanket application of MiFID position limits across all commodity derivatives, but it is far from clear what denying the exemptions would have achieved.

Edmund Parker, global co-head of derivatives and structured products at Mayer Brown, believes part of MiFID's focus is to ensure that investors are correctly classified. "We have seen a much lower burden of proposed regulation on the end user since we have realised the impact on the industry and those trying to hedge live risks," he says. "I think the overall concern is that if you increase the regulatory burden, where are the costs actually going to lie? I think there has been a general alarm about MiFID position limits among end users, but there was always some expectation that you would have exemptions that would come in."

Metals and agricultural commodities traders might also have had expectations of exemptions, but MiFID II is set to capture those commodities in its net – a concern for most, but hardly a surprise. The strength of lobbying by the energy industry is understood to have far outweighed that of its counterparts in the metals and agriculture sectors.

The question of how easy is it to enforce the new legislation could prove to be a tricky one, with some highlighting the difficulties inherent in enforcing rules on position limits

Key factors in exemption

"The energy industry fought harder than the metals and agricultural sectors," explains one industry source, who cites existing historical regulation within national markets and the requirements under Regulation on Energy Market Integrity and Transparency (REMIT) as key factors in exemption success. "Since national gas and power had regulations from before, they asked for a carve-out. So the oil companies asked for a carve-out to have a level playing field. In many countries, gas and oil are competing energy sources. They can't exempt one without the other."

Unlike the energy sector, the metals markets are centralised in one main marketplace – the London Metal Exchange – and the industry was more or less resigned to

Gary Anderson, Chief Executive Officer, DGCX

As the missing link in Dubai's gold ecosystem, since launching in 2005 DGCX has played a vital role in the emirate's development as a bullion centre. Gold futures volume has surged as imports-exports hit a record 2,250 tonnes last year, up from 1,700 tonnes in 2012.

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The relevance of the spot gold contract scheduled to debut in June is underscored by the flow of gold through Dubai, exceeding 40 per cent of last year's global trade. We have everything here from refineries to fabricators down to the gold souk itself, so a transparent spot contract that's priced for Dubai-good delivery is the one element that's missing. We also plan to use the contract to provide a benchmark price to the Dubai marketplace.

Our plastics contract, launched jointly with the Dalian Commodity Exchange in February, has been received very positively and is attracting a lot of interest that we expect to grow as the year progresses.

The GCC [Gulf Cooperation Council] region produces as much as 20 per cent of all plastics globally, with half of that exported to China. So there is a need for a contract within the Middle East itself, but also a huge need in Europe and the US from the end users of plastics.

the fact it would be caught in the MiFID net. "[The industry] was pretty sure that it would come under MiFID. I don't think it will damage the metals market," says the source.

Traders and banks involved in agricultural commodities are generally comfortable with the new position limit rules, according to the source, but he admits some have exited the industry. The imposition of the position limits may have affected the decision by some banks to leave, but it could also be down to general risk in the markets or a fall in prices.

Glitches in new regulation

"I think the main issue that market participants face is that it's difficult to expect price stability," he added. "The very important part is that producers and transporters can still find the hedging tools to hedge their risk. Like in metals, it's difficult to know what to expect on the stage of agricultural commodities."

The question of how easy it is to enforce the new legislation could prove to be a tricky one, with some highlighting the difficulties inherent in enforcing rules on position limits. Glitches in the new regulations are not likely to be known until the new MiFID position limits come into force. And, according to Parker, given the slippage in timelines in the other big regulatory projects, we will not see anything implementeduntil around 2018 or later. "MiFID will dramatically reshape the way firms operating in the financial services sector conduct their business," he adds. "For the OTC derivatives market, there will be a seismic shift resulting in higher costs, tighter margins and reduced flexibility when hedging. On the positive side, increased transparency and investor confidence may be positive for the market.

"However, we won't know what the real impact will be until the regulators decide the fixed position limits, and whether any onerous approach will limit liquidity. We haven't yet seen the detailed rules, but as the industry analyses a broad-based first draft when it comes, inevitably exceptions and safe harbours for certain participants will need to be created. This is standard, and I think also right."

It's clear that some market players have won a temporary respite from the long arm of the regulators, while others will feel the immediate effects of this new legislation. Whether an end user in the agricultural industry, a broker in the metals industry or an energy supplier, the onset of position limits is something that everyone has had to consider with great care. Even when the final rules are implemented, the real impact is unlikely to be known for some time. ○

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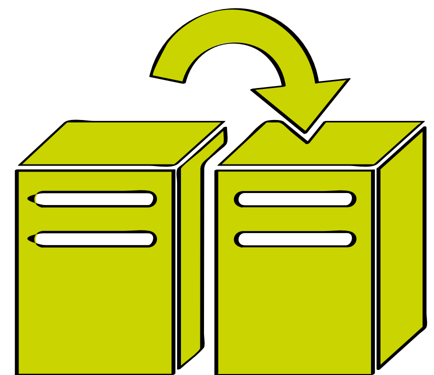

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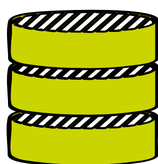

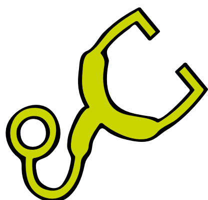

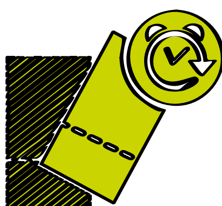

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