OTC Equity Derivatives in Europe:
Harnessing the Liquidity

Rebecca Healey | V11:021 | May 2013 | www.tabbgroup.com

Introduction

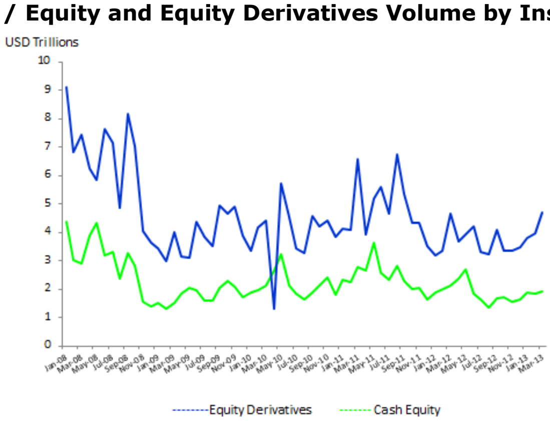
The European equity derivatives markets have clung on amongst the last bastions of the opaque bilateral world. But not for much longer – change is underway. However, greater transparency will be created from the necessity of improved clearing, collateral and trade reporting driven by Regulation 648/2012 which came into force in March 2013, rather than buy side desks clamouring for improved pricing and tighter spreads.

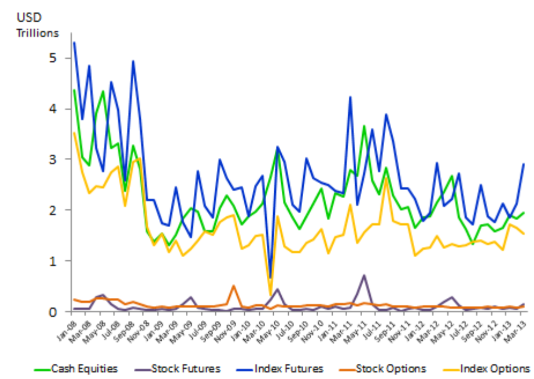
Certain derivatives products are already trading successfully on lit exchanges – for example, interest rate swaps. However, other products appear to remain out of reach such as the equity options markets, which due to poor liquidity and a declining appetite to hedge remains heavily tied to the bilateral risk capital model. With little natural order flow and fierce competition, the future of European equity derivatives markets appears relegated to the doldrums.

Yet with change comes opportunity. The pastiche of European regulation, impact on market structure and underlying economic malaise will require an upsurge in technology able to deliver unprecedented innovation, which is set to dramatically alter the equity derivatives landscape in the process. As market participants identify the impact of regulation, new methods to hedge risk, calculate margin and source liquidity will emerge, and novel like-for-like products will be created.

Greater standardisation of products will transform the industry from a predominately opaque, bilateral over-the-counter model to a majority electronic centrally cleared marketplace. The subsequent switch in focus from a predominantly hedging function to a trading opportunity will in turn attract new participants with alternative modus operandi and potentially increased volumes.

Exhibits 1 and 2
European Equity and Equity Derivatives Notional Turnover (USD Trillions) 2008-2012 / Equity and Equity Derivatives Volume by Instrument Type (USD Trillions) 2008 – 2013





Source: Thomson Reuters / WFE

Since 2011, European equity derivatives volumes have traded in tandem with the underlying equity market, as hedging requirements declined and intervention by global central banks impacted liquidity drivers and curtailed volatility. However as cash equity volumes have become more constrained, there are the glimmers of behavourial change (see exhibit 1). Cash equities fell to just 41% of equity derivative volumes by the end of Q1 2013. Bar cyclical falls in the summer months, the ratio of cash equity to derivatives volumes has not dropped to these levels since briefly in March 2011 (42%) and then in September 2010 (41%). The majority of interest is clearly in index futures with single stock futures and options still struggling to gain traction (see exhibit 2).

For the buy side, challenging market conditions, together with the focus on improving yield is leading investors to diversify from cash equity holdings. At the National Association of Pension Funds conference in February 2013, 78% of defined-benefit scheme delegates confirmed they were moving away from cash equities to a wider range of investments. This switch is creating an interesting paradox. The derivatives product spectrum is becoming increasing vanilla but appealing to new participants, going mainstream in the process, accentuating the existing challenges the industry faces.

In a similar vein to the development of automation within the cash equities markets, derivatives execution is fundamentally being redefined. Depleted margins and bank deleveraging as a result of Basel III reduces the appetite for market makers to offer warehouse risk for anyone other than the most lucrative clients. The situation within the equity derivatives market is compounded by the increasing cost of financing due to higher hurdle rates impacting swap pricing. As liquidity continues to concentrate, the overall cost of trading increases, resulting in declining opportunities for profit and fewer participants willing to engage.

Reduced diversity of market participants should technically offer greater opportunity for surviving firms. In reality it delivers even lower available liquidity especially in less actively traded instruments. As implicit market costs become more important than explicit costs, the flexibility to access liquidity wherever it is available is reshaping the traditional methods of trading in anything other than the most liquid of products with the lowest capital requirements.

Europe’s different clearing structures, lack of post-trade transparency and commonality, plus geographic dispersion, all combine to make a kaleidoscopic market where every unique set of complex characteristics must now be considered. Add into the decision-making process the myriad of equity-linked products and the intricacy of the problem becomes clearer.

The switch from vanilla cash equities will deliver a Pandora’s box of complexity but also opportunity. While new margin and clearing requirements will initially curtail innovation, as market structure rules stablise, efficiency innovations such as workflow, collateral optimization etc., will evolve within the new regulatory framework. Emerging avenues of opportunity will attract alternative market participants forcing the market to fragment faster than in equity markets previously. As it does so, the ability to harness any available liquidity across the widest spectrum of instruments will offer the greatest potential to limit downside risk and maximise profitability, ensure best execution, as well as meet compliance obligations. Efficiency technology will become the crucial enabler in this process.

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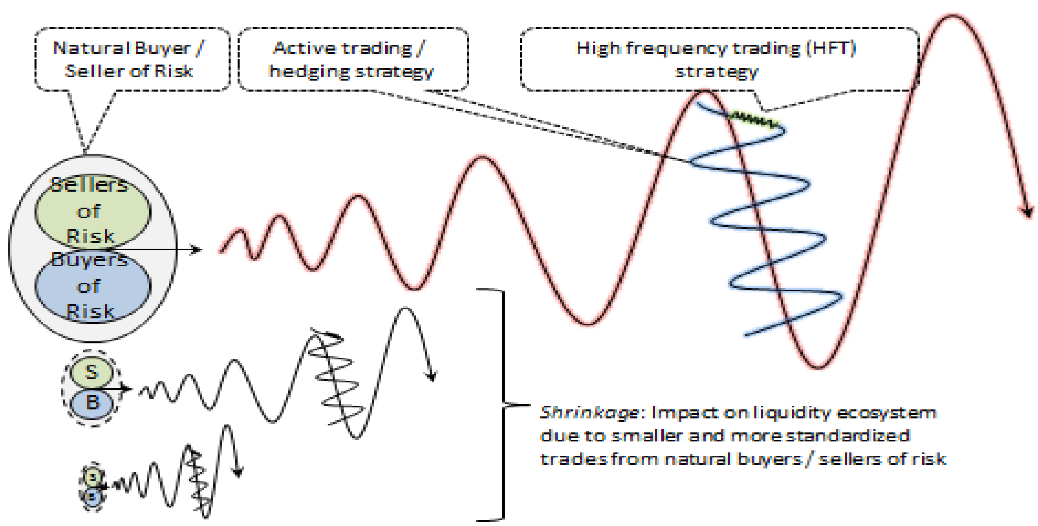
The Challenges Ahead

Traditional equity derivatives volumes originally emanated from a hedge between hedgers hedging hedges. However, with current changes in both regulation and market structure, it is becoming harder for the originator of the hedge to participate as before. In contrast, market structure changes are facilitating new entrants who will potentially disrupt the fragile eco-system.

As the market has progressed from voice trading, to instant messenging, the request for quotation (RFQ) modus operandi enables market participants to recreate an on-exchange level of transparency in an OTC environment. While the move from a labour-intensive voice process to a centralised transparent pricing module, with full analysis of both brokers and products, seems a slam dunk requirement for any buy side trader, the ratcheting up of European regulation will continue to accentuate this process.

The European Commission's European Market Infrastructure Regulation (EMIR) technical standards on OTC derivatives, reporting to trade repositories and requirements for trade repositories and central counterparties came into force on March 15, 2013. The majority of OTC contracts will have to be centrally cleared and reported to a trade repository and banks will have to set aside collateral against the risk represented by those contracts. The opportunity costs of capital caused by increasing initial margin requirements from central clearing counterparties (CCPs), plus onerous capital charges on less-liquid exotic bilateral trades, will remove the incentive to trade a large swath of non-clearable "exotic" derivatives, as the cost of the "insurance" becomes more than the "premium".

Exhibit 3
The Shrinking Appetite for Hedging



Source: TABB Group

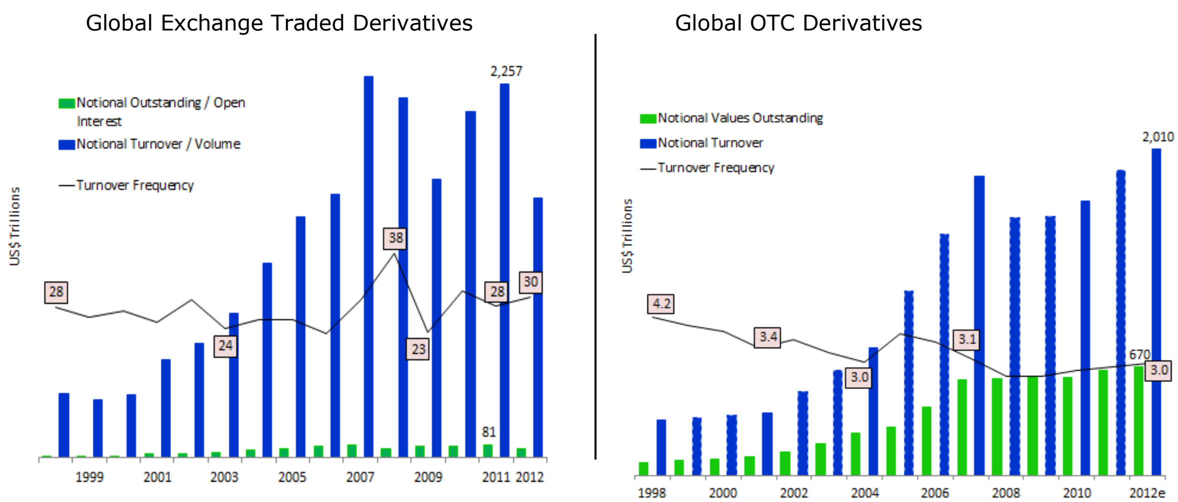
The intention may be to increase transparency and reduce systemic risk in over-the-counter derivatives (OTCD) markets; however, the reality is that regulators may inadvertently morph systemic risk into liquidity risk. As we have seen in the cash equities markets, if there is no benefit to trade, traditional market makers choose to exit, leaving illiquid markets in their wake. Without the fluidity of trade volumes, market participants are dependent on greater levels of technology in order to transact their trades, radically transforming market structure in the process. As trading flows become more automated, average trade sizes have to shrink to avoid information leakage, relying on newer market participants such as high-frequency trading (HFT) to facilitate order flow (see exhibit 3).

The ability to participate in this new market environment will require a wider suite of tools and technology. Sufficient data will need to be captured to analyse the market microstructure, map this data to trading profiles in real-time in order to locate available liquidity and deliver best execution, all while minimising the risk of signalling trading intentions.

The alternative will be to trade a standardised product that is cleared and traded on-exchange, such as a future. The downside of using a more standardised contract is that it may not provide the exact risk coverage or "hedge effectiveness" required, potentially damaging the ability of long-term investors to manage their risk liabilities as effectively.

While certain market participants will remain wedded to key broker relationships in order to trade increasingly illiquid equity derivatives, automated trading will gradually encroach upon market share, irrespective of whether this is via a central limit order book (CLOB), auction or RFQ (Request for Quote) automated processes. The requisite to automate the order flow process will make the step from partial to full automation merely a hair's breadth away.

Exhibits 4 and 5
Total Notional Outstanding, Notional Turnover and Estimated Turnover Frequencies



Source: TABB Group

Inevitably, derivative products will become concentrated in fewer vanilla products. As open interest continues to rise and investors struggle to locate economically equivalent hedging opportunities to a less viable OTC swap, the futurisation of the OTC market will gain momentum (see exhibits 4 and 5). Change is unavoidable and current market economics will dictate.

Changing the Old Guard

Standardisation will deliver another subtle change; the move away from OTC trades to a more exchange based centrally cleared base process will appeal to new participants looking to arbitrage-inherent inefficiencies among new and old product classes, such as futures versus cleared swaps versus futurised swaps, or cash versus equity derivatives versus ETFs. As liquidity within the European cash equities markets becomes increasingly constrained, some participants are developing cross-product trading desks to maximise the available investment opportunities. The inclusion of these new participants will also lower average trade sizes, creating an increased feedback loop, attracting a greater diversity of market participants and creating challenges for traditional phone based trading.

Exhibit 6
Current Execution Methods for OTC trading – Opportunities and Challenges

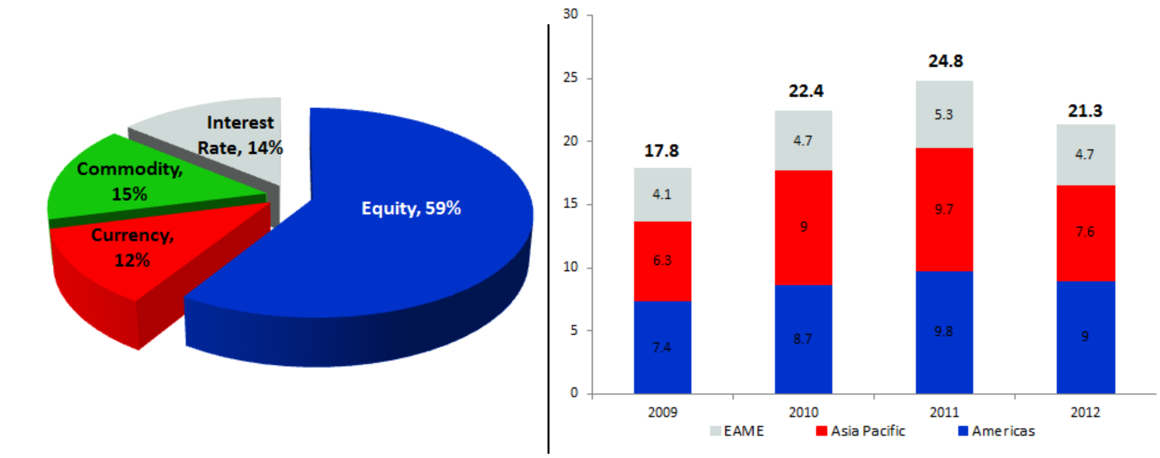
Business Type	Current Execution Method	Opportunity	Challenge
Voice-based IDBs (BGC, Tradition)	Phone	Mergers and acquisitions will continue as market participants compete to retain market share in a fragmenting market	Failure to launch OTFs could mean missing a valuable new trading opportunity
Hybrid IDBs (Icap, GFI)	Phone/Screen	Unparalleled price discovery knowledge and tighter bid/ask spreads than the exchange market, make IDBs well placed to take advantage of the new OTF environment. Likely to court HFT flow to attract liquidity.	Will be difficult to attract Buy-side institutional order flow without alienating dealer client base.
Data Aggregator (BrokerHub, Cscreen, Vectalis)	Screen	Aggregate prices from fragmented, voice-dominated IDB market place on screen. Without a direct relationship to the dealer community may be in the best position to establish an open access trading platform that can attract a broad variety of order flow.	Will find it difficult to compete with larger IDBs who may launch their own platforms.
SDPs (Autobahn, RediPlus)	Execution Management Systems	Electronically integrate Buy-side OTC options workflow directly with the dealer counterparty delivering Straight-Through-Processing benefits and reducing operational risk. May re-invent themselves as multi-dealer platform aggregators in order to remain relevant.	EMS may not cover full OMS requirements. Best Execution mandates make it increasingly difficult for SDPs to remain relevant, may need to re-invent themselves as multi-dealer platform aggregators.
MDPs (Bloomberg, RFQ-hub, Tradeweb)	Request for Quote	Reduces operational risk for Institutional Buy-side clients by integrating OTC Block options trading with EMS/OMS platforms, delivering Straight-Through-Processing benefits and meets new regulatory requirements under EMIR. Increasing Buy-side demand for quicker RFQ response times as well as price transparency to demonstrate Best Execution practices will ensure these systems are currently best placed to meet market challenges.	Competition from SDPs still exists although there has been a significant pick-up in buy-side MDP adoption helped by regulatory requirements". .

Source: TABB Group

The introduction of new order flow will require greater analysis in pre-trade execution. Rather than specialists in individual product lines, there will be a shift towards analysis of trading objectives and the myriad options to achieve this. Without increased technology and improved workflows, full analysis across all products – and potentially all asset classes – will be impossible. Traders will now require the means to quantify when, where and in what size and what asset product or asset class they should trade, and will switch activity as market conditions and the state of orders changes.

As illustrated in the shift from cash equity to equity derivatives, the more complex investment approach has also delivered a shift in asset classes. In 2012, there was a 5% shift of exchange-traded derivatives (ETD) activity from equity-related products to commodities. Equity-linked contracts, which make up 59% of global ETD volumes, fell by 19%. This accounts for roughly 80% of the global drop in activity in 2012.

Exhibits 7 and 8
ETD Breakdown by Product Group in 2012 / Worldwide ETD 2009–2012

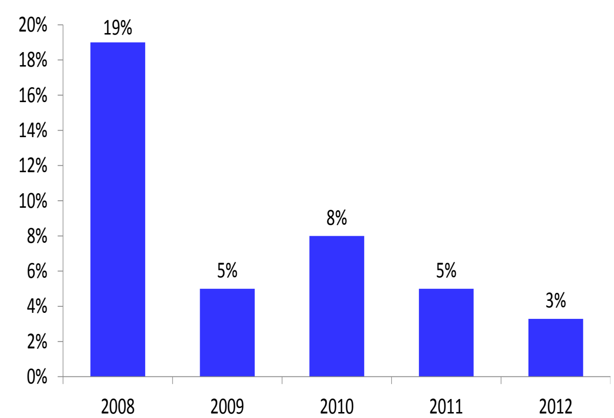


Source: WFE / TABB Group

In Europe, equity volumes will continue to be challenged given the growing raft of regulation, including the new financial transaction tax (FTT) and its impact on current European equity trading volumes, as well as continued underlying economic concerns. Therefore, tactical asset allocation will require a switch from understanding the cost of trading to the cost of investment over a wider variety of products in real-time. From cash equities to commodities and exotics, foreign exchange and real estate, locating the right individual on the right desk, irrespective of the asset class, will require the ability to harness available liquidity streams across siloed banks with the minimum of resources.

To illustrate the speed of change that occurred in the Equities market, in 2008 80% of UK asset managers used risk capital to execute cash equity trades, only 3% of order flow is now executed this way (see exhibit 8). Without facilitation of order

Exhibit 9
Percentage of Cash Equity Order Flow Traded On Risk by UK Asset Managers



Source: TABB Group

flow, alternative methods of trading will continue to be sought in the hunt for liquidity.

Given this structural shift and increasing fragmentation, technology will become an essential lifeline. As the evolution of OTCD trading has transformed from a predominantly voice-brokered industry to the electronic straight-through processing RFQ model, European derivatives will become increasingly dependent on a combination of low-latency trading, global fund flows, data, trade analysis and ultimately, economies of scale, in order to succeed.

The Incentive to Change

The regulatory stick is yielding results. However it is changes to back office functionality and significantly more transparent reporting requirements that will propel market participants towards greater automation.

As both the buy side and sell side are burdened with adhering to increasingly complex legislation, there will be a requirement for systems to adapt to the myriad of new regulations emanating from Brussels in a timely manner, particularly with the implementation of the EMIR. These greater levels of automation throughout the investment process will not only enable firms to meet regulations but also to analyse the true cost of execution in the process, a task that hitherto has been laborious within an OTC environment.

The EMIR has landed

Although EMIR became legally binding in August 2012, the recent publication of the regulatory technical standards on February 23 starts the timetable for the implementation of significant EMIR measures over the coming year.

EMIR applies to any entity established in Europe that has entered into a derivatives contract, and applies to non-EU counterparties trading with EU parties. Regulation 648/2012 came into force on March 15 and allows up to mid-September for trade repositories to register and for CCPs to submit applications. National Competent Authorities will then have a further six months to authorise the relevant CCP. While it is unlikely that market participants will have to centrally clear OTC derivative products before February 2014, the impact of regulation is already forcing a change in European market behaviour.

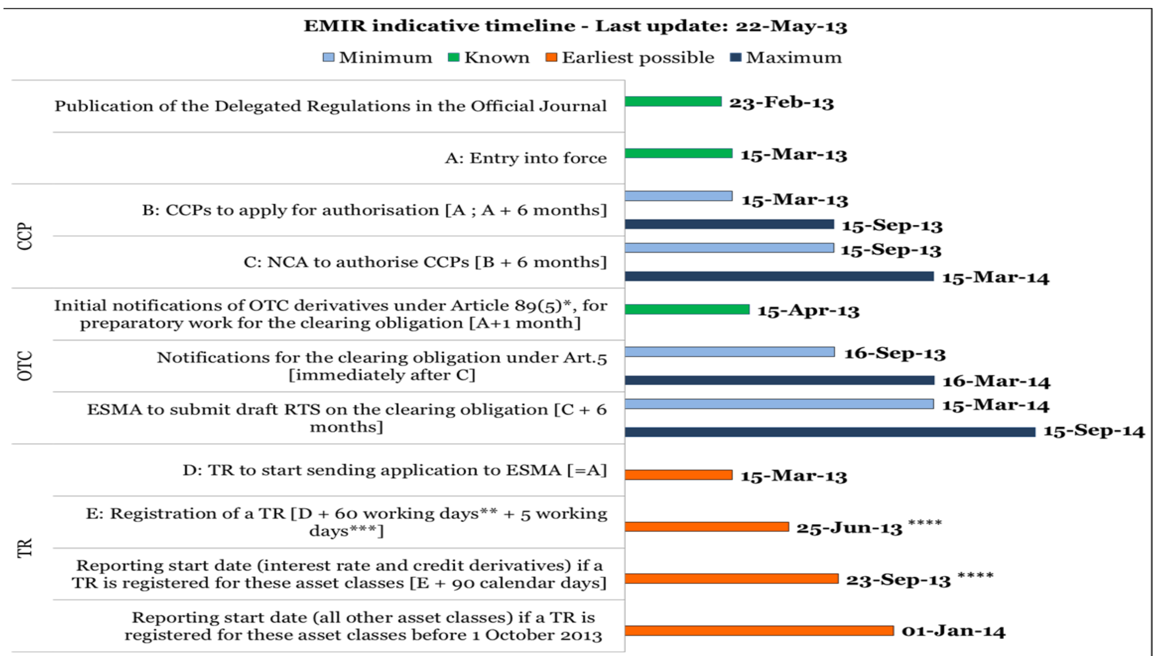
Clearing and collateral – Contracts not cleared through a CCP will be subject to bilateral collateral requirements. All counterparties are required to comply with operational risk management requirements (including timely confirmation, valuation, reconciliation, compression and dispute resolution) by mid-2013. Firms will need to establish: which CCPs clear the types of OTC derivatives they trade; whether they will access clearing directly as a "clearing member" or as a client; and if they have sufficient collateral available to collateralise non-cleared OTC derivative trades as well as the necessary agreements in place. Very few firms will be able to clear OTC directly. Only the largest and most competent banks will be able to play here. Current clearing members are wary of weak links.

Reporting – EMIR requires all counterparties with outstanding derivatives contracts to report details of those contracts – and any new contracts they enter into – to an authorised trade repository (TR). ESMA recently announced that they anticipate registration of the first TR(s) are unlikely to take place before August 2013, implying that the trade reporting start date will also be delayed by ninety calendar days to November 2013 for credit and interest rate derivatives and by the first quarter 2014 for all other asset classes. Given the variety of derivatives a counterparty may trade, firms will need to establish: which TRs they can report to for each type of derivatives transaction; whether they will report directly or via a third party; and whether the systems and processes in place will satisfy the new operational risk mitigation requirements.

Extraterrioriality – This concerns the jurisdiction of each counterparty. If one party is a US person and one is a European person, it will be key to establish which legislation on reporting and clearing applies to which parts of the trade, particularly given the recent public spat between officials on both sides of the Atlantic over international harmonisation of regulation.

Top finance officials from the European Commission have outlined their concerns to the US Treasury regarding the lack of progress in developing rules for cross-border derivatives transactions. Finance ministers have now set a July deadline for specific recommendations to resolve cross-border conflicts, inconsistencies and duplicative requirements. One area of focus will be the requirements for non-financials, as their treatment is different under EMIR versus Dodd-Frank. Non-financials will be required to clear non-hedging trades when their exposure is above the gross notional thresholds of €1 billion for credit and equity derivatives, and €3 billion for commodity, FX and rates derivatives.

Exhibit 10
Latest EMIR Timeline



* The notification under EMIR Article 89(5) do not trigger the front-loading period for a class of derivatives as described in EMIR Article 4(1)(b)(ii). This front-loading period will only be initiated by the notifications referred to in EMIR Article 5(1).

** The exact duration of the registration process of a TR will depend on whether the application is complete when it is filed and whether additional information has to be submitted to ESMA.

*** The registration decision takes effect on the fifth working day following its adoption.

****** Nevertheless, on the basis of the information available so far, ESMA's best estimate is that the registration of the first TR(s) is not likely to take place before August 2013 and the reporting start date depends on the actual date of the registration of the first TR(s).**

Source: ESMA/ theotcspace.com

Getting the basics right: clearing, collateral and reporting

While many market participants see clearing obligations being pushed out to 2014 and beyond, it will be the requirement for transaction reporting – in particular, the aspect of timely confirmations – which will spearhead widespread uptake of automated workflows. New levels of standardisation, from master agreements to templates to pre-approved term-sheets, will become prerequisite. Currently, buy side traders have to visit multiple brokers' websites each time they trade. Given the stretch of workload on depleted buy side desks, you can expect the path of least resistance; brokers who provide a seamless, standardised real-time process will win market share.

Basel III and European short-selling rules will require banks to find additional collateral to support potentially risky activities. An optimal way to analyse the availability of collateral will be required prior to the introduction of the clearing obligation for OTC derivatives in order to ensure the ability to trade. Breaking down siloes and resolving inefficient usage of collateral will now become a priority. Without an automated workflow process, efficient management of collateral will remain a pipe dream relegated to individual traders' Excel spreadsheets.

The obligation to hold more collateral for OTC transactions will also create additional pressure to hold only liquid assets. Funding of derivatives is a complex process, incorporating the value of derivatives, plus the credit value adjustment, the firm's own credit risk adjustment, minus the liquidity risk. Ironically, as liquidity becomes progressively more important, this will create stressed markets as participants fight for dwindling liquidity in a reduced number of names, which in turn will increase the liquidity premium.

In December 2012, the Basel Committee on Banking Supervision agreed to broaden the definition of assets considered to constitute "high-quality" collateral – a step intended to reduce the pressure on financial institutions struggling to source adequate collateral and ease fears of a liquidity drought. It remains to be seen if this will be successful.

Margining requirements.

The recent EuroCCP-EMCF tie-up brings the number of cash-equity clearing houses to seven. There is still considerable fragmentation in Europe's current market structure and consolidation at the CCP level is likely to continue to ensure greater connectivity, improved margin funding and reduced settlement costs. Economies of scale will also deliver ancillary savings for firms linked to reduced back-office expenditure and legal and compliance department costs. However, the buy side's adoption of cross-product and portfolio margining will be the most effective defence against increasing collateral pressures.

Market participants will require more formalised initial and variation margin processes for standardised OTC derivatives that need to be centrally cleared under EMIR. Currently every European clearing house has its own margining calculation, leading to fears over margin arbitrage. The ability to manage the differing margin calculations in relation to individual portfolio analysis will inevitably lead to greater automation of internal processes to ensure regulatory compliance.

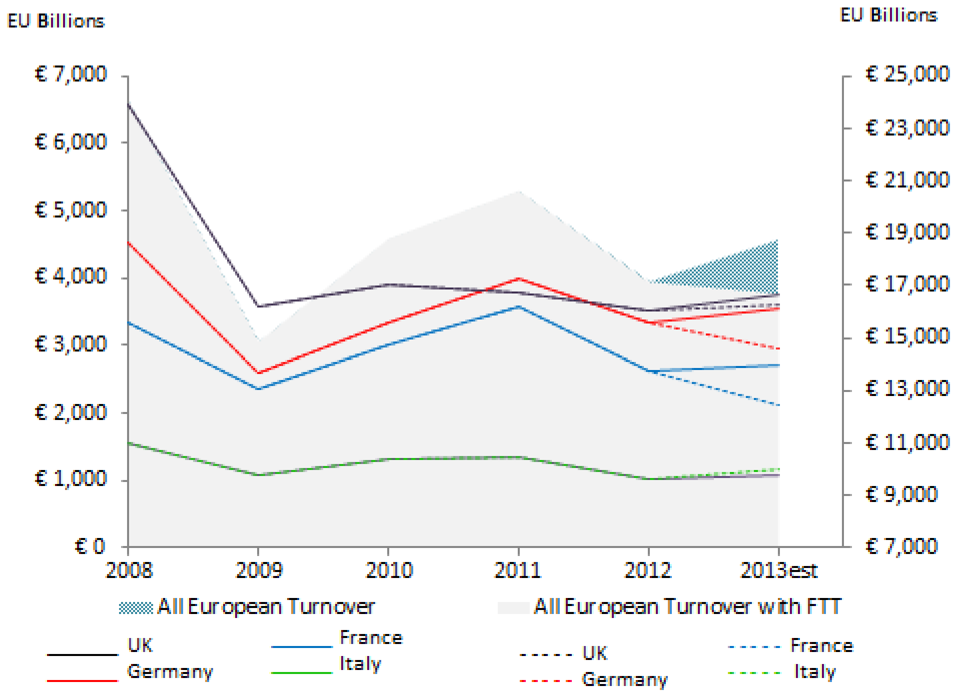
Irrespective of the regulatory aspect, the greatest advantage upside automated workflows can deliver will be the ability to effectively manage risk in real-time. Managing data flows as portfolios change will enable firms to confirm all aspects of the trade – from the availability of credit at the time a trader wishes to post a price or execute an order, to establishing the historic best bid/best offer – in order to ensure best execution.

In today's environment, the need for trade certainty remains top of the list. By automating the workflow process, compliance departments can roll up alerts to avoid undue noise and focus on the key issues - ensuring removal of risk of failing trades due to a firm exceeding its credit limit, to using data analysis to establish the most risk effective product to trade. The more complete a data set is, the better the risk management and the more effective the pre-trade analysis.

Rise of national regulation

In addition to the regulation to date, the Italian FTT came into force on March 1, 2013 and will tax equity derivatives transactions on a sliding scale as of July 1, 2013. This represents a new operational challenge for financial institutions due to the complexities of identifying securities in scope and determining the level of tax on those instruments within each jurisdiction.

Exhibit 11
The Cumulative Impact of the European FTT on Liquidity in Cash Equity Markets



Source: TABB Group

While Italy, Hungary and France are currently the only European states to have implemented national FTTs, these countries are also part of an 11-state bloc pushing for the creation of a pan-European FTT. This is unlikely to be achieved within the proposed timeframe agreed by the European Commission in a draft of the FTT, if at all. Currently, the draft is passing through the legislative process under "enhanced cooperation", which requires a group of nine member states to form EU legislation with backing from the commission. But this is currently stalling at this unified implication stage. However, the political will to impose FTTs in Europe should not be underestimated.

In addition, the currently proposed tax will cover transactions occurring on any venue in the world, under the "issuance" and "residence" principles. This is a legislative nightmare in a fluid situation. Again, without fully automated processes, the ability to manage this complexity in a timely fashion is incomprehensible given the global nature of trading and the underlying funds. The level of complexity from a workflow perspective has already impacted cash equity volumes and TABB Group predicts this to continue as the cumulative factor of the EU-11 FTT expands (see exhibit 10).

Again, the impact of the FTT and the recent German HFT legislation on the derivatives markets is as yet unknown, but is likely to be of greater concern. If initial margin is to cover market movements, less-liquid OTC instruments will fare badly against a liquid future; if one participant goes bankrupt, clearing houses will assume it will take longer than two days to trade out of a position and, as such, are likely to factor in a product's accessibility and liquidity in the assessment of risk. In addition, with repurchase agreements currently included under the scope of the tax, those asset managers relying on the repo market to raise cash to pay variation margin calls could be impacted further.

Given the growing split between transatlantic regulations, it will become harder for global funds to make sense of the deluge of overlapping and conflicting regulation. The need for continuously updated awareness of changing deadlines, similarities and differences, as well as penalties for non-compliance will ensure efficiency technology remains at the crux of trading.

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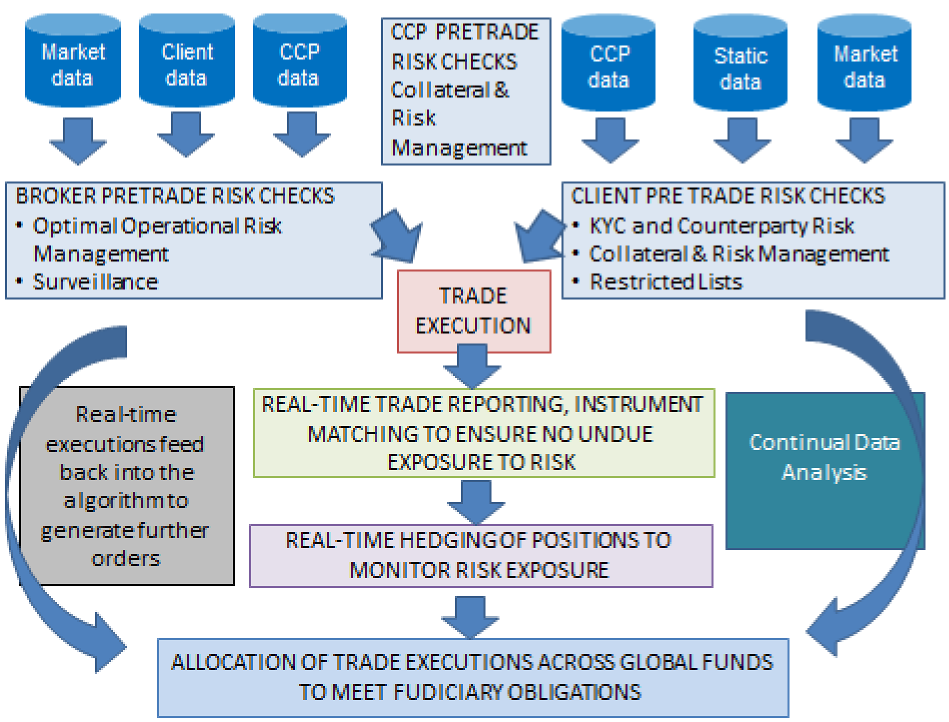
The Increasing Importance of Intelligence and Analysis

Irrespective of market participants trading an OTC or ETD product, the overriding requirement for buy side traders today is the ability to analyse data – both historic and real-time – across brokers and product ranges, to establish which product to trade where, relative to the underlying fund. This analysis needs to be both accessible and actionable in order to achieve the necessary operational efficiencies.

Just as venue analysis is essential for the cash equities trader, broker and product analysis will be the backbone of the future buy side trader. Intelligent analysis offers the ability to optimise current strategies based on a combination of past, present and future data analysis, leveraging trading activity with predictive analytics, timing and volume adjustments to optimise alpha.

The potential for this new deep analytical source – with its ability to extract data in different forms across a new range of products – leads to huge opportunities for those with the right technology. From incorporating actionable indications of interest, to tracking interest in illiquid names, collateral optimisation and cross margining, to stock lending, the efficient management of data via technology is the new modus operandi. The constant evolution of products within the equity derivatives space will ensure continued diversification and offers significant competitive advantage.

Exhibit 12
Future Workflows for Equity Derivative Trading



Source: TABB Group

Conclusion

Just as we have seen in equities trading over the past decade, the transition from a largely OTC block market to a highly automated electronic market will deliver progress and opportunities. However, the transition will be littered with challenges along the way.

Technology will be a prerequisite to ensure a safe arrival to the other side; from the ability to understand which product to trade, to where and how in order to achieve best execution and minimise risk. True automation is not only about speed; the fastest traders may still win but only if they are running in the right direction. The winners' edge is now intelligent analysis and astute risk management.

There are those who believe the OTC market is sacred territory that can never succumb to the vagaries of fully automated trading. It may take time but – as with small and mid-cap cash equities a decade ago – the tsunami of automation will eventually overcome resistance. And there will be huge benefits in the process.

Global banks remain entrenched in searching for cost efficiencies, as the low volume, low volatility environment persists, the only way to ensure survival will be through automation, further fragmenting liquidity. If regulation continues at this pace, there is a risk that volumes will decrease even further, delivering structural market shifts that will require technological superiority in order to be overcome. Increasing market complexity will favour firms that can scale. As even greater emphasis on monitoring data will become critical to achieving optimum execution, those who can leverage technology will improve their profitability across a myriad of product options.

European buy side traders will need to focus on what their individual aims are and establish which tools will deliver their success. Greater buy side control is now a fundamental requirement: and those who gain the most insight will be rewarded with a better chance of maximising performance. Analysis will go a long way to establishing which methodology is required when, where and in which product, offering the European buy side trader greater defence against the perils of low liquidity.

Some may see the OTC RFQ model as redundant and only a short hop from a full-scale CLOB centrally cleared market. However, the variety that equity derivative trading provides will ensure continued innovation both in the OTCD and ETD space. The cost constraints associated with maintaining investment in this will ensure valued partnerships with technology firms in the years ahead. The deluge of regulation continues unabated and as Europe lurches from policy to policy, the ability to stay compliant with Brussels will be essential.

Products that offer the seamless transition from the current OTC environment look set to win first. As technology evolves and automation of processes advances, market participants who chose to educate themselves and engage will have the greatest opportunity to harness dwindling liquidity.

Appendix

Exhibit 13
Vendor Offerings from Multi Dealer Platforms

	Multi Dealer Platforms (MDP)		
	Bloomberg	RFQ-hub	Tradeweb
Cash Equity :			
Pre-Trade Analytics	√	√	
Execution Venue Analytics	√		
Pre-Trade Allocations		√	√
Dark Liquidity Capture	√		
Block Trading	√	√	
ETFs	√	√	√
PT	√	√	
EFPs	√	√	√
Stock Lending	√	√	
Proprietary Smart Order Routing	√	√	
Proprietary algorithms	√	√	
Equity Derivatives :			
Multi leg/asset (spread trading)	US only	√	√
Equity linked spread trading	US only	√	
Proprietary Smart Order Routing	US only	√	
Proprietary algorithms	US only	√	
Listed options	US only	√	√
OTC options	√	√	√
Variance Swaps	√	√	
Futures & Rolls	√	√	√
Equity Swaps		√	
Structured products	√	√	
Light exotics		√	
OMS workflows :			
Portfolio Managers Access	√	√	√
Compliance/Legal Access	√	√	√
Dealing Desk Access	√	√	√
Connectivity to sell-sides			
FIX API	√	√	√
WebService	√	√	√
Excel CSV drag & drop	√	√	√
Tradeable IOIs and Trade Axes	√	√	
Buy-side analytics			
TCA	√	√	√
Broker reviews	√	√	√

Source: TABB Group

About

TABB Group

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Rebecca joined TABB Group in March 2011, bringing more than 15 years' experience in e-trading and financial services. Rebecca has held various sales and trading positions with Bankers Trust, Goldman Sachs, and most recently Credit Suisse, where as Vice President she was instrumental in launching the successful AES (Advanced Execution Services) product to hedge funds from its inception in 2002 until 2008. Prior to this, she was the first electronic trader at Credit Suisse to be registered for all electronic European cash equity markets and covered sales trading into Asia and then Europe between 1997 and 2000. More recently, Rebecca was based in the Middle East from 2008 to 2010. There she was employed by the British Embassy in Bahrain, where she successfully launched the UK Government's financial services strategy and set up the Bahrain Financial Services Roundtable, which remains a key source of information for the UK Government today, especially in relation to Islamic finance. Rebecca holds a Bachelor of Arts degree in Spanish & Latin American History & Politics from the University of London. At TABB Group, Rebecca has authored *European Equity Trends 2012/13; European Equity Trading 2012/13: Changing the Rules of Engagement; FX in Transition: Taking The Quantum Leap; MiFID II and Fixed-Income Price Transparency: Panacea or Problem?; Market Surveillance in Europe: Under Starter's Orders; European Equity Trading 2011/12: Looking for Allies in the Face of Adversity; European Algorithms: The Evolution; and Trading in the Middle East: the Road to Mecca.*

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