The Changing Face of Client Derivatives Clearing

Regulation, higher capital requirements and constraints on revenue models in derivatives clearing are changing the way banks in particular look at their clients. In line with a trend that started some years ago, the number of derivatives clearing firms is shrinking further. Banks must earn more from their clients or be faced with exiting the listed derivatives brokerage business (unwelcome), accept lower returns on capital utilised (unlikely) or be more picky about the types of clients that they serve (likely). As a result a number are 'reassessing' their client base and some clients just don't fit any more...

These 'unloved' clients who wish to maintain their derivatives business flows are therefore looking at alternative options – finding another clearer is of course one, but new clearing models that facilitate direct access and indeed self-clearing are also firmly on the table.

Contango

"The times they are a-changin" – so wrote the (now) Nobel laureate Robert Zimmerman (aka Mr. Bob Dylan). You would have to have been in a particularly deep hole to have failed to notice the changing times in derivatives markets over the past eight years or so.

The global financial crisis spurred regulators into action to rein in what they saw as the excesses of the derivatives industry through the implementation of layer upon layer of new regulation. Few would argue that much of this was not warranted but, as with a great deal of bureaucracy, the changes come at a price – and in this case the price is a significant rise in operating costs for all derivatives market participants but banks in particular.

SIGNIFICANT CHANGE

Bank brokerage units, whether Futures Commission Merchants (FCMs) or General Clearing Members (GCMs), have been dealing with significant change and increased operating & ongoing complicance costs for the past few years. The growing regulatory burden in both the USA and Europe, designed to drive business towards 'lit' trading venues (those that display bid/offer prices and available liquidity) with significant demands in reporting & maintenance of transactions throughout the trade lifecycle, has put tremendous pressure on middle and back offices to deliver capital, operational and regulatory efficiency: Dodd Frank in the US followed by the start of EMIR in Europe, coupled with significant changes to the reserves that banks must hold to protect them and their customers from individual or systemic failures (Basel III and CRD IV). Of course the change is not over yet with MIFID II just around the corner.

UNHOLY TRINITY

As a result of the swift and seismic agenda for change, ancient (some might be kind and call it legacy) technology and the attendant infrastructure that has built up around it in the form of bespoke applications & processes, was simply unable to cope. As a result, technology spend has risen in the midst of rising operating and capital costs - an unholy trinity for those offering client brokerage services in the listed and OTC cleared derivatives markets.

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CLIENT COLLATERAL

In concert with the changes, one of the cornerstones of revenue for the FCM/GCM community has been removed – the ability to earn interest on client collateral. The demands of client segregation post Lehman and MF Global have led us to the point that this key revenue stream has all but dried up. Prior to the 2008 financial crisis, the FCM/GCM community were able to make money on collateral deposited by their clients through the offsetting of positions in the customer segregated account - the 'gross-net' play. Any offsets arising from multiple client positions would attract a lower margin requirement from the CCP than the individual calls made on the clients by the FCM/GCM.

CHANGING LANDSCAPE

Since the crisis, the regulatory landscape has changed significantly and, even though client funds at Lehman & MF Global were (eventually) recovered, regulation now imposes individual segregation requirements on the clearing community.

Rising operating costs, banks under significant pressure to reduce capital utilisation and loss of a key revenue stream, along with the increase in technology spend, have led to something of a crisis point for bank listed derivatives units and one that demands a rethink on how these operations are priced to customers for clearing services.

The other key revenue stream to disappear was the interest rate spread on collateral. Back in the (good) old days when short term rates were ~ 5% it was possible to take 100-150 basis points off the customer. In a near-zero interest environment this is not possible without going into negative rate territory and FCMs/GCMs are loath to charge customers on margin cover.

The other regulatory-driven consequence of the 2008 crisis is the imposition of stricter rules relating to balance sheet and capital usage by GCMs/FCMs. The leverage ratio (implemented to ensure banks are not overstretched) and the proposed capital requirements under Basel III and CRD IV take no account of the nature of client clearing.

Without offsets for client initial margin balances, even more firms are likely to exit the client clearing business, resulting in a concentration of risk amongst the larger GCMs/FCMs – an unintended consequence that runs contrary to the G20 objectives. We are pleased that industry lobbying, notably by the FIA[1], has resulted in a delay of the implementation of the rules by the Basel Committee and we await the revised rules with interest.

RETHINK OVERDUE

Some, us included, would say that such a rethink is long overdue. The headlong rush to the bottom in terms of client commission rates and a crisis in FCM/GCM profitability and return on capital has not delivered a healthy or agile industry. There will always be those whose business is discounting, but where that appears to be the norm, rather than the exception, seismic increases in costs without corresponding revenue relief for participants, leave the industry as a whole exposed.

The outcome is simple – the number of FCMs and GCMs has contracted significantly since 2008 with companies going out of business, merging or withdrawing entirely from providing client clearing services. Figures compiled by the Futures Industry Association (FIA) utilising CFTC data show this all too well (see Figure 1).

From December 2005 to December 2014, the total number of firms registered with the CFTC declined from 171 to 76 and the number of firms with customer assets declined from 85 to 60[2]. During this nine-year period, a significant number of smaller firms holding an average of $10 million in customer funds went out of business or combined with other firms.[2] In May 2016, there were just 70 FCMs left in the U.S[3].

Granted, these are US data and there may be some regional variation (though not a lot), but the fact that 77% of FCM business is undertaken by 10 banks whose businesses face rising costs in a number of sectors really defines the starting point for the change process.

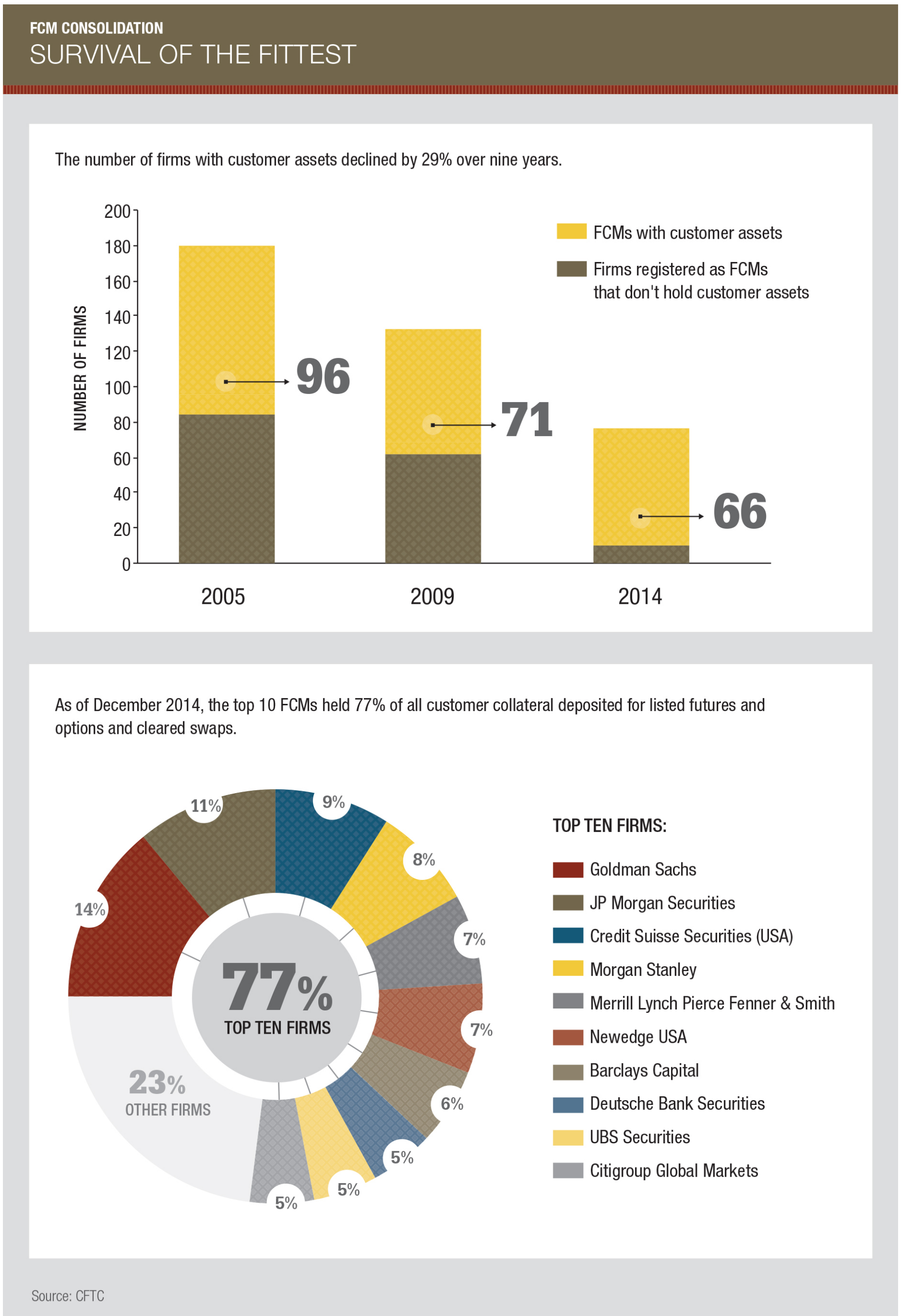
These companies must earn more from their clients in these markets or be faced with exiting the listed derivatives brokerage business (unwelcome), accept lower returns on capital utilised (unlikely) or be more picky about the types of clients that they serve (likely).

CLIENT DOWNSIZING

Banks (unsurprisingly in today's capital constrained world) appear to be making judgements on the returns that they require from clients. For those whose business flows are more regular, there might be a rise in commissions but there is likely to still be a service provided. For those that don't hit these thresholds, the message is very likely to be 'provide us with guaranteed minimum revenue on the account or find another clearer'.

The larger GCMs we spoke to on the subject of client "downsizing" said they had reviewed their respective client bases and requested certain customers to seek alternative clearing arrangements. Impacted clients were considered "low yield", holding large, mostly static, positions relative to their monthly volumes. The cost of capital to support these types of accounts has resulted in the introduction of minimum monthly fees and some "offboarding" of these clients.

Figure 1: The dramatic decline in the number of FCMs from 2005 to 2014.



Source: MarketVoice magazine, November 2015

OR BUSINESS OPPORTUNITY…

Conversely, some regional GCMs have seen this downsizing by larger, global GCMs as an opportunity to build client business. The Head of Operations at a European GCM has used the regulatory change agenda to develop an Individual Segregated Account (ISA) clearing model, which is being used to attract new business. This firm reviews client profitability at an organisational level so there is less direct cost pressure, especially capital costs related to margins.

NUMBER OF CHOICES

Those clients affected by offboarding have a number of choices:

"Futures Clearing is a facilitator for other areas of the business, but we now have our own P&L line and cannot subsidise other parts of the business"

- Head of Operations at a large European GCM

- Meet the thresholds through additional trading - but this might add a burden of risk to the firm that it is not equipped to handle or prepared to take, or is simply against their business strategy.
- Meet the thresholds by paying the required minimum regardless of trading activity – a possibility but potentially costly in hedging or total cost of ownership terms.
- Move clearers – if it is to another bank then little changes potentially. However if the new clearer is a non-bank FCM/GCM (and there are certainly companies willing to accommodate) these might not as acceptable credit counterparties for the client as the banks.
- Cease derivatives hedging altogether – for physical market participants this is feasible utilising a physical inventory 'sell and replace' strategy but it requires significant market counterparties and will most likely reduce the amount a company trades as (realistically) the availability of physical volume may not match up to create a balanced hedge within a limited timeframe.
- Trade OTC – not what regulators might want but a potential outcome if a company has the credit to present itself as a credible counterparty for such transactions.
- Take advantage of new CCP offerings on more direct capital/ funding/margining models.
- Become self-clearers – an option that is beginning to gain some traction and that exchanges/clearing houses are attempting to facilitate and clients are beginning to explore.

Of these, we are going to concentrate on the response from clearing houses who have started to create new categories of membership or introduce sponsored access to clearing; and the more drastic option of self (or direct)-clearing which requires a two-pronged decision-making approach (credit, collateral & regulatory accountability commitments, followed by the required support from a dedicated operations/technology team or service).

"Offboarding customers runs contrary to the business strategy of growing our business." Head of Clearing at a North American FCM

NEW OFFERINGS FROM CLEARING HOUSES

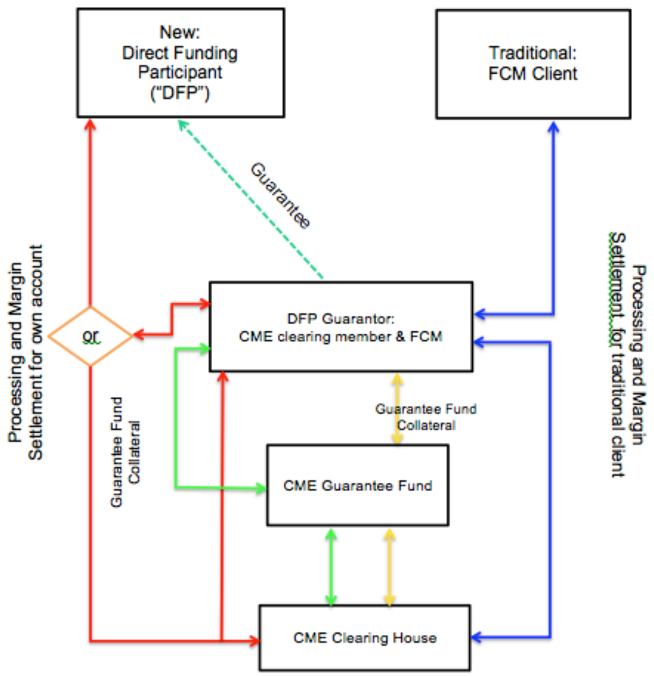
Clearing houses are beginning to offer alternative direct clearing models to the new self-clearing derivatives end user. These alternatives allow end-user firms to have more of a direct margin posting model with the CCPs and bypass the use of existing GCM's/FCMs' capital for posting initial and variation margin to the CCPs, a major step toward reshaping how the derivatives industry works[4]. Despite the differences between each clearinghouse's plan, all are offering alternative, direct payment procedures for capital to be allocated by clearing end users.

Eurex Clearing's ISA Direct model combines elements of a direct clearing membership and the traditional service relationship in client clearing. It aims to open up a new principal client relationship between end user clients and the CCP, with the regular clearing member acting as a clearing agent, providing a variety of mandatory and optional service functions. Eurex's model intends to alleviate concerns about counterparty credit risk, clearing costs and portability of assets compared to the traditional client clearing model.

CME Group is looking to launch a new category of clearing membership, called a "direct funding participant" (DFP). According to the exchange's website, this new type of membership is designed to provide individual segregation in the U.S. by allowing the end client to directly face CME Clearing. It does however require the prospective member to meet certain criteria.

Under the CME's plan, end users would be able to post cash directly into a clearinghouse account at the CME rather than transferring those funds through an FCM, giving added protection to their cash collateral. On the downside, because this cash is isolated in a protected account, it can no longer be used to net with other assets and liabilities that the firm may have on other products and markets through their FCM – a fundamental benefit of the FCM intermediary model. However, for firms that want added protection and either have all of their business on CME or are willing to forego the netting that their FCM provides them, the DFP model is an alternative to the current clearing model.

Figure 2: In CME's proposed workflow, the FCM is still relied upon to provide the financial guarantee for self-clearing members



Source: TabbFORUM, August 2016

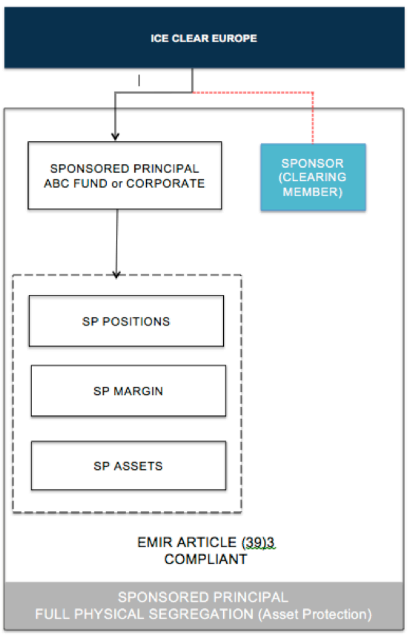


Figure 3: ICE Clear Europe Sponsored Principal Overview

Source: ICE Clear Europe website

ICE Clear Europe has developed a similar model - Sponsored Principal. Under this arrangement the Sponsored Principal (SP) has a direct relationship with the CCP in all respects except the payment of the default (or guarantee) fund contribution, which is met by the Sponsor Member (SM). ICE Clear Europe calculates the default fund requirement and calls it from the SM. A separate agreement is required between the SP and the SM and the SP will be charged for the default fund contribution made on its behalf.

Another major central counterparty, European Commodity Clearing (ECC) also launched its own version: Direct Clearing Participant Model, which will allow power trading participants to have direct access to clearing & trading of spot markets, independent of a clearing member.

The various direct clearing proposals being implemented by the CCPs provide customers with options regarding their relationship with both the CCPs and their GCM/FCMs. From a client perspective, direct funding models ensure there is no transit risk involved in the transfer of margin, as it moves directly from client to CCP. From a GCM/FCM perspective, the direct payment model removes the balance sheet implications whilst ensuring that they are still responsible for key operational clearing functions (e.g. trade & position management, expiry and delivery processes etc.) and are not being disintermediated.

Insight: European Power & Gas

Direct clearing is not a new phenomenon by any means as participants in the European power and gas markets have long been direct clearing members. They are generally asset rich and cash poor, which, combined with very few GCMs/FCMs who are prepared to take the risk of entering the delivery cycle of the power and gas markets, led them to becoming direct market participants in order to manage centrally cleared market risk. Key to the success of this model were the innovative clearing mechanisms that split spot clearing and deliveries from the forward curve.

Whilst power particularly has a unique delivery cycle, a marked increase in self-clearing customers might precipitate a rethink of product design for more traditional commodity markets along these lines by the major exchanges.

TAKING THE PLUNGE: SELF-CLEARING

Some of the larger commodity firms & corporates, such as Mars and Shell, have been self-clearing for years, while commodity merchant Mercuria is part of a new wave having recently become a member of two clearing houses. Other companies are actively assessing the risks and rewards of self clearing. But it is not all one-way traffic as another merchant, Glencore, cancelled its clearing membership in early 2016.

Without doubt, self-clearing is not a route for everyone, but for those companies with good credit and availability of cash (or the ability to transform that into acceptable collateral), the opportunity of having direct control over risk management in cleared derivatives is particularly appealing in a world where many banks seem to be losing their appetite for anything outside of plain vanilla.

It is interesting that the global commodity merchant community is one of the groups of market users assessing the benefits of self clearing, as they were the direct beneficiaries of the banks divesting themselves of large swathes of their commodity trading units. The irony is, of course, that if these companies were not only to self-clear but also to offer clearing services for their trade counterparts (the very firms who themselves may well face offloading by the banks), the merchants would be handed another commodity market business opportunity by these same banks.

So what are the considerations that a client who is assessing the feasibility of self-clearing must address in order to ensure that should they decide to self-clear that they are well prepared?

CREDIT is certainly high on the list. To this point, clients who are used to trading and clearing through an FCM/GCM have leveraged the credit that the clearer has with the clearing house. Self clearing will entail a direct relationship between the firm and the clearing house, which will require membership fees, a default fund contribution based on activity, initial margins and the ability to pay and receive daily (possibly intra day) variation margin calls. All of this would have previously (under the FCM/client model) been dealt with by the FCM and included in the fees paid by the client to the FCM.

COLLATERAL is a key element for any direct clearer to assess and have access to as it is an essential element in funding and supporting exchange traded and cleared transactions. Firms may be long of collateral that is not clearing house acceptable and wish to transform that into something they can use as initial margins against their positions. There are opportunities for GCMs/FCMs to provide collateral transformation services utilising repo structures in order to facilitate such transformations either through collateral for collateral transactions or by providing cash in return for the asset.

For those companies who do not have access to non-cash collateral but have cash, the choice of how to utilise this cash is largely driven by the interest rate environment in which they are operating. In the US and Europe, with low interest rates and potentially negative rates when utilising cash at a clearing house, converting cash to acceptable collateral is a good option. In high interest rate environments, the self-clearer must assess the return (if any) paid by the clearing house on cash deposits, against the cost of converting cash to acceptable collateral (Government Bonds or similar).

The advent of the acceptance of exchange deliverable warrants as collateral is a positive move and may well facilitate self clearing for commodity market participants who are long of exchange stock. Even with a large haircut, the utilisation of what was formerly 'dead' collateral is a major benefit and one that exchanges are increasingly offering to their clients.

Key operational responsibilities of a self-clearing firm include clearing and trade lifecycle management, margin and brokerage processing, and reference data management and reconciliation.

Successful execution of these functions ensures that reporting to internal stakeholders and the clearinghouses is timely and accurate. A typical self-clearing processing environment requires:

Integration with the trading platforms the firm uses for straight-through processing (STP) between front-office, exchange, and clearing systems.

Connectivity to the clearinghouses for real-time, middle-office matching and clearing.

End-to-end reconciliation activities, to ensure there is one version of the "truth" across the exchanges, clearinghouses, brokers and internal books and records and to ensure that margin calls and cash management transactions are accurately executed.

Ongoing change management to address operations and technology compliance requirements or changes in exchange or CCP infrastructure

Significant changes to operational processes due to new regulatory requirements such as MiFID II. The new MiFID II rules will require increased data integration, retention and reporting requirements, as well as prescribe higher standards for process risk and control.

Acquiring the technology to support a self-clearing operation; including software applications and technology infrastructure that are configured, maintained and delivered securely, reliably and with sufficient capacity to support the operation. These technology requirements also evolve over time and firms must continually invest in projects to comply with market and regulatory changes, technology upgrades & cyber security implications.

REGULATORY REPORTING is also a key responsibility that any self clearer will have to attend to. For a large majority of firms the actual reporting is undertaken by the FCM/GCM on behalf of the client (although the responsibility remains with the client for the veracity of the information). With Dodd Frank, EMIR, REMIT and soon, MIFID II, this is a major undertaking and anyone who is contemplating such a move needs this to be working well on day one.

"To self clear we would need to either recruit very skilled staff or outsource to someone we really trust, both of which create significant operational risk at a time we're already swimming in it." - Global Commodity Trade House

OPERATIONAL PRACTICALITIES are a significant part of the self-clearing model: operations & technology staff, coupled with the infrastructure that all support the additional commitments imposed by a direct relationship with the clearinghouses. One trade house we spoke to, who had considered the move to self-clearing, simply felt that it was an additional layer of risk that they could do without.

INSIGHT: COMMODITY MARKET STRUCTURE

The types of clients affected are most likely to be those that take long-term positions and do not trade in and out regularly – certain types of funds and (in particular) commodity hedgers.

Alongside looking at the practicalities of maintaining their own risk management and trading operations in the listed derivatives markets for these disenfranchised clients, it is worth taking a look at the effect on the market should they no longer be able to operate efficiently (or at all).

Healthy markets require a balance of speculators and hedgers to keep volatility in check. Where speculators overwhelm hedgers, volatility results as the crowd drives the price in the absence of the stabilizing long-term position takers. Where the hedgers are the majority, volatility is also created as there is little interim liquidity to soak up orders that hit the market and this has a direct impact on the use of the futures contact in question as a pricing tool for the underlying physical market. A balance is therefore essential to avoid unnecessary volatility.

The liquidity ratio (the number of days it takes the Open Interest to turn over in Average Daily Volume[5]) is an excellent way of assessing whether such balance is present. For 'in balance' markets, a ratio of between 4 and 10 days is the optimum. Based on end October 2016 figures, CME corn has a ratio of 5.18 days, COMEX Gold is 4.42 and CME Eurodollar is 8.3. Markets where such balance is not present – Chinese futures markets for instance where speculators dominate – see turnover ratios of less than a day (and massive volatility as a result).

These numbers – for benchmark contracts – are relatively stable over time but have fallen by about a day (at least in commodities) since 2000 as greater levels of speculative activity have been present in these contracts.

The significance of this ratio is that if the hedgers, who are not ideal clients as they do not turn over their volume, find themselves unable to trade, inevitably the turnover ratios will fall and unnecessary price volatility will be introduced to the market as speculators become an increasingly large part of the picture. Conversely, too many hedgers and not enough speculators also creates volatility. It is also fair to say that (in commodities at least) the inability to have access to hedging facilities could have catastrophic effects on the risks to producer and consumer alike.

WHAT ARE THE OPTIONS?

Firms investigating the self-clearing model currently have three options for operations and technology support:

1 In-house operations staff and technology – Requires significant capital investment and onboarding effort of staff, applications, and infrastructure, plus the ongoing cost of maintaining these to comply with new market and regulatory requirements. This used to be a two horse race but niche providers are emerging that appear to offer alternatives. Distributed ledger technology may also offer another option for this type of implementation (although it could be argued that this will be equally applicable across all the options).

2 In-house operations staff and vendor managed technology – Requires significant effort in onboarding staff and maintaining expertise, but leverages a vendor to support the technology applications and infrastructure. This is the traditional agency model. It still has many users and companies exist that specialise in either onboarding specialist staff or providing in-house resources.

3 Vendor managed operations and technology – An option where the vendor is responsible for nearly all self-clearing operations and technology requirements, limiting the risk, effort and cost of building out a team, maintaining the clearing expertise and complying with ongoing market and regulatory changes. The true utility model has been operating in securities markets for a number of years but has failed to really take off in derivatives processing until recently.

We see the third option being the most likely to be adopted as it provides the user with a much quicker route to market, managed services and agreed service levels as well as a nonchalance about the technology being used to undertake the processing. It becomes an outcome-driven model that can only be good for end users as there will inevitably be contenders who, to gain market share, will undercut the price of the processing.

MOVE WITH IT, OR MOVE ASIDE...

Naturally there will be concerns from some of the companies considering self-clearing that they are not necessarily set up to perform all of the functions that are required of them or do not have the credit or collateral available to them to become direct members of clearing houses.

We believe that the demand for self-determination from these clients will lead to the emergence of a new type of market participant – a non-bank credit and collateral counterparty. These new companies will offer access to credit and collateral transformation services that will enable the clients considering self clearing to take the decision as to how they want to undertake the clearing of their trades. The potential to take collateral that is not compliant for clearing house use and transform that (with a haircut of course) into clearing house-compliant collateral is a powerful service when it is combined with a credit counterparty that could also be utilised for default contributions.

There are many ways in which this could be undertaken but our view is that a credit and collateral counterparty combined with a utility operations provider delivers the optimum in terms of value and access to markets. Given the conversations we have had with market participants, we cannot see the demand for much more in house operational risk, so the benefit of outsourcing all of these functions – albeit for a fee – not only challenges the status quo, but brings a new dimension of participants and service offerings to the cleared derivatives industry.

Yes, the times are changing and that isn't going to stop. Those companies who explore and embrace innovation in clearing are set to refine the market structures that will define our industry for years to come. Change is happeniing, move with it or move aside – simple really...

ENDNOTES

[1]FIA announcement, January 3, 2017 - https://fia.org/articles/basel-committee-delays-meeting-capital-requirements-proposals

[2]Market Voice magazine, "CFTC Examines FCM Consolidation" November 15, 2015 - http://marketvoicemag.org/?q=content/cftc-examines-fcm-consolidation

[3]Tabb Forum - http://tabbforum.com/opinions/growing-self-clearing-trend-could-threaten-fcms

[4]Bloomberg, "CME Seeks Clearing Shift as Rules Reshape Derivatives," September 26, 2016 - http://www.bloomberg.com/news/articles/2016-09-23/cme-shifts-clearinghouse-access-as-new-rules-reshape-derivatives

[5] Combined futures and 50% options open interest divided by combined futures and 50% options average daily volume

About Contango

Founded in 1999, Contango Markets has developed into one of the world's leading capital markets and commodities consultancies. Specialising in product and market development for exchanges, banks, IDBs, clearing houses and other primary market participants, our customer base is 'blue chip' and our product expertise extends across the entire range of cash and derivatives asset classes. Additionally we have been involved in the development of centrally traded/standardised contracts in other markets such as catastrophe insurance and telephone bandwidth and are actively involved in the establishment of new exchanges in 'frontier' markets.

Our team is drawn from experienced market professionals – each of whom has held senior positions with commercial companies specialising in all sectors of the OTC and exchange-traded markets.

In addition to our depth of knowledge in products and related services, we also work with technology companies (some of them global market and household names) to assist in development of new products and services for the derivatives and cash markets. We also work with these organizations on M&A activity: from strategy development and target identification through to detailed due diligence and negotiation tactics.

This combination of knowledge of product, regulation, operations, risk management, clearing and the technology that supports them gives our customers a unique resource upon which to draw. Our focus on delivering results means that our customers value our input and return to us (in some cases many times over) for further work.

We not only understand the product throughout its lifecycle but also the operations, risks, technology and regulation that sit alongside it – at any point in the product lifecycle. This means that we are able to relate issues across 'silos' to provide our customers with the most comprehensive development and support infrastructure available in the wholesale financial markets.

In essence, Contango Markets is a team of world class "market mechanics" who are not afraid to get their hands dirty and whose depth of experience and track record of success is unlikely to be matched.

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