FX Liquidity Management:

Should you be taking a more pro-active approach?

By Roger Aitken

The topic of Liquidity Management across the capital markets and in the FX space in particular has received a growing level of attention over recent years as innovation has allowed technology to meet the complex Liquidity requirements of banks and financial institutions, thus helping to deliver efficiencies and mitigate risk. Roger Aitken talks to some leading technology vendors to find out more about the latest developments within this space.

Definitions

The definition and applications relating to Liquidity Management have prompted a considerable amount of debate. Various market participants have used it as a catchall term, with the meaning interpreted slightly differently depending on who one canvasses. However, whichever way you choose to define it, having a sound FX Liquidity Management structure in place helps to ensure that trading opportunities can be more effectively grasped and risks more efficiently managed. It also makes even more sense in terms of institutions when they are operating globally and managing FX rates and Liquidity internally and for their external clients.

With regard to key applications including Liquidity Aggregation, CEP and Smart Order Routing, one definition of Liquidity Management might be to regard it as the "science of automatically managing market and resting order flow with minimum human intervention", according to Yaacov Heidingsfeld, CEO and co-founder of TraderTools Inc., a New York-based provider of software and services to financial institutions specifically trading FX.

He adds: "Liquidity Management from TraderTools' perspective means: Am I looking at all my currency exposure from all the sources of my supply and demand simultaneously - in real time and electronically? With the volume of trades in the FX market and ballooning tickets it's worth bearing in mind that this is a key requirement can no longer be performed manually."

Harry Gozlan, CEO and founder of financial trading systems specialist, smartTrade Technologies says: "Liquidity Management in my opinion relates to all that concerns the interface between the originating orders from a client or traders, right through until those orders are executed."

smartTrade is one of the industry leaders in cross-asset Liquidity Management solutions for banks, broker-dealers, asset managers, and large hedge funds. The firm recently introduced a new product called LiquidityDistributor for low latency customised distribution of OTC Liquidity (including FX). This solution is the fifth modular component in its product suite - alongside the vendor's LiquidityAggregator, LiquidityCrosser, LiquidityOrchestrator and LiquidityConnect solutions.

Adding value and reducing costs

There are a number of reasons why banks and other financial institutions that trade FX should be considering adopting more effective and automated FX Liquidity Management strategies. Ultimately it can add significant value for firms who deploy such technology and can help tailor differing FX rates for certain client types or 'buckets' (e.g. institutional, corporate, retail).

Today, in order to compete, institutions also need to drive down their marginal costs and extract as much profit as they can. And, for many sell-side institutions - who want to retain customers - this means considering putting in some kind of intelligent strategy.

Several years ago, after a raft of research reports from firms including Aite Group

architecture and the characteristics of the current and planned client flow."

In the case of DealHub's Business Activity Monitoring system, this can display real-time and historical reports of client flows and sales credit P/L, and is held up as "an ideal way" of making client flows visible to the naked eye by collating data in a single display - often making this "easily available for the first time in some institutions."

This type of overview can be used to see instantly the activity of an individual client, and the effect on revenues of changing the price spread, or moving the client from an ECN to the bank's in-house e-Commerce platform.

"Once a critical point in terms of volume flow is reached, or even designated in planning, the key advantages of internalising these flows become apparent," explains Kriskinans.

"To reach this point the bank must examine and define the requirements for a robust intelligent price distribution system, Smart Order Routing, Liquidity Aggregation and algorithmic hedging."

In relation to other key services and solutions (e.g. Liquidity Aggregation, Liquidity Distribution, Intelligent Pricing, and Smart Order Routing) which are being offered as part of a 'comprehensive' and integrated LMS architecture, Kriskinans asserts that there is "considerable crossover" between vendor solutions.

"Often banks will combine several offerings to create the hybrid solution that covers their exact requirements and utilises the 'best-of-breed' solution from each particular vendor," he adds.

With DealHub, the vendor claims it has "solved the problem encountered by banks seeking a single, unified layer of proven technology across their entire e-Commerce distribution platform."

The DealHub Connectivity Manager Price Distribution solution distributes high performance FX rates to clients via the bank's own Single-Dealer Platform (SDP), white label offerings, directly integrated API clients as well as multi-bank ECNs. This is claimed as having "the flexibility of being able to integrate with any CEP vendor as well as the bank's internal systems to give a wide choice of price source and hedging capabilities."

Peter Kriskinans
"Reaction speed in terms of price delivery and auto-hedging dictates an in-depth examination of the entire Liquidity Management architecture and the characteristics of the current and planned client flow."

and TABB Group were published - examining some of the early adopters of Liquidity Management solutions - the benefits of LMS systems became pretty clear. For example, they have helped with increased price transparency, which would lead to narrower bid/offer spreads, and in turn drove higher volumes. Also, in terms of electronic Straight-Through-Processing (STP), having an automated Liquidity Management solution could reduce the cost of processing trades that were considered unprofitable in earlier times. Add to this global trading across time zones, which allows banks to capture greater spread.

Examining LM architectures

Peter Kriskinans, Managing Director at Option Computers (DealHub), says as banks increase their activity in e-Commerce: "Reaction speed in terms of price delivery and auto-hedging dictates an in-depth examination of the entire Liquidity Management

Option Computers also provides Liquidity Aggregation with a comprehensive range of connectivity to ECNs and single bank APIs. And, this March the vendor successfully implemented its DealHub/Connectivity Manager price distribution solution at a leading global bank. It provides their customers with a strategic tool for low latency streaming of prices to multiple client-facing platforms.

TraderTools' Liquidity Management Platform™ is offered up as one of the only systems on the market today that integrates the "four disciplines" of electronic FX trading, namely: an FX Pricing Engine, FX Liquidity Aggregation, FX order Management and FX White-Labelling.

"These are the four key elements of any system that any bank trading in FX requires," states Heidingsfeld in New York. "But the fundamental question is really: As a bank are you buying all of those elements from a single vendor, or are you looking to use certain elements that you already have. Moreover, even if the system components are disparate, the overall Liquidity Management Strategy (LMS) should be unified."

More flexible Aggregation solutions

Looking at initiatives leading vendors have been taking of late to make FX Liquidity Aggregation solutions more flexible in order to help in the optimisation of flows and to deliver more compelling competitive advantages, much has been happening.

At Option Computers they already have an extensive range of trading interfaces to multiple Liquidity venues. The firm's Liquidity Aggregation GUI has a wide range of functionality including Order Management, which allows the user to construct their own order strategies that can be saved as preset order templates and used again.

Heidingsfeld at TraderTools, says: "As a technology vendor wholly-focused on FX, we deliver an open system, whereby if a potential customer has an existing LMS technology they wish to integrate, we can do that for them. As such, it does not have to be an 'all or nothing approach' where customers are held hostage to a particular offering."

He adds: "Given that our licensing model is transaction-based, end-clients have all the technology [LMS solutions] available to them. They're able to

decide which components and solutions they wish to select and compare the results in real time." And, in terms of ROI, Heidingsfeld says that TraderTools has a "proven model that objectively demonstrates increased revenue streams" for banks deploying its Liquidity Management solutions.

According to Heidingsfeld, one unnamed bank client has been able to save around $75 per $1m worth of FX volume traded through just two aspects - FX Liquidity Aggregation and FX Order Management. "And when our FX Pricing Engine and FX White-Labelling modules are activated, that number could be much higher," he adds.

Distribution strategies

Turning to steps that financial institutions can take to develop more effective distribution strategies for FX

Yaacov Heidingsfeld
"To me, more effective distribution strategies in FX trading all really revolve around more effective pricing."

Liquidity, banks will usually either have a white label e-Commerce platform or their own single dealer platform. But commonly both, "as they seek to reach a distributed audience of clients trading on their favoured platform," notes Kriskinans.

He adds: "The most effective first step any bank can take is to future-proof its architecture to allow it to move flexibly in any direction to reach end clients."

Heidingsfeld adds: "To me, more effective distribution strategies in FX trading all really revolve around more effective pricing. Essentially, there really are no more than three ways to distribute prices to a bank's customers: (1) an FX White-Labelling solution, which most institutions have adopted and are looking to upgrade; (2) a Multi-Bank Portal; and, (3) a FIX API to the customer.

The method a bank chooses depends on it size and customer base." However, he goes on, "Regardless of the channel, they have to ask whether they are making the best possible prices and offering razor-sharp prices for different customer profiles."

At Option Computers they achieve more effective distribution strategies for FX Liquidity for institutions with two key products. DealHub's Connectivity Manager is a price distribution solution, which provides a strategic tool for low latency response to price requests for FX spot, Forward, Swaps and NDFs to multiple client facing eCommerce platforms. DealHub's Single Dealer Platform Gateway forms a common interface to the Bank's Single-Dealer Platform and direct client trading API over the Bank's messaging middleware of choice. It acts as the bank's own ECN calling the DealHub Connectivity Manager for pricing, maintaining stream assignments, handling session Management and user entitlements and calls other systems to process blotter requests, pass orders and book deals as required.

Another step

Another "essential step" towards future-proofing Liquidity distribution strategies is to plan for the volume and type of price requests and resulting trades, which will grow exponentially as the business increases. DealHub's Connectivity Manager, for example, is designed to handle extremely high trade throughput and handle two-way communication of events between sophisticated algorithmic trading software.

Their Connectivity Manager incorporates highly flexible rules-based processing and provides support for Request for Quotes (RFQ), Request for Streaming (RFS) and executable streaming prices as well as Dealer Intervention. It manages the negotiation and validation of the deal request lifetimes according to the protocol of the individual ECN, performs credit checking against internal systems, and validates outgoing rates against a Market Data source and creates STP to the Bank's downstream systems.

DealHub's STP system is said to be capable of processing in excess of 2,000 trades per second, and offers "compliant archiving" and overview for a comprehensive solution to integrate to the Bank's downstream systems and workflow processes. In relation to how more advanced Liquidity Distribution frameworks can help banks and brokers better manage Liquidity pools and the margin/spread adjustments they need to apply to various types of client (Corporate, Institutional and Retail), Kriskinans says: "Banks that combine CEP vendors with DealHub's Price Distribution system have tremendous flexibility on where and how they construct prices and allocate credit during a price request."

Market data considerations

Electronic FX trading desks are becoming very burdened with the distribution and fan-out of market data to clients. The problem is compounded within

FX where brokers are dealing with a wide range of clients including retail, corporations, and institutions who are all profiled differently for commissions and credit limits.

As a fundamental component in the implementation of a widescale single-dealer eTrading platform for OTC products, smartTrade's newly introduced LiquidityDistributor hopes to solve many of these issues by enabling organisations to customize and create complex matrices for their distribution of market data and prices to various types of clients including custom spreads and limits over any messaging infrastructure.

LiquidityDistributor can manage the complex matrix of clients who can be grouped into different Liquidity pools with different sales spreads, set multiple price tierings for the clients, dynamically move clients between pools and spreads, and apply credit checks before establishing a market data stream and the tradable stream.

Harry Gozlan explains: "LiquidityDistributor enables our customers to customize their order flow for Aggregation, Matching, and Smart Order Routing and now also to customize the distribution of that Liquidity. Clients will be able to create very complex patterns for their quotes, Liquidity stacks, spreads and limits to fan out to their clients over any messaging infrastructure for a higher level of client servicing at a very low level of latency."

Furthermore, smartTrade customers will have the "ability to choose the combination of how they want their market data distributed including full market data, incremental, and conflated snapshots." As such the LiquidityDistributor is offered up as a "proven solution" for individual asset classes including FX, as well as fixed income and equities. "It's a natural solution for a cross-asset trading infrastructure," Gozlan asserts.

Connectivity and Latency issues

As regards connectivity, latency and legacy integration issues associated with revamping or upgrading an existing LMS, Kriskinans says: "Banks may choose to take a phased approach where their initial stance is to use some elements such as an existing price engine and add the DealHub price distribution layer as a simple 'framework', which passes on pricing to existing client facing platforms."

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vendors entering the connectivity space to compete with the traditional providers, improvements in connectivity speed are continuous.

Heidingsfeld says that latency and scalability are two areas that highlight both the challenge and promise of LMS systems. "The more the integration points and disparate technology, the greater the latency. Liquidity, as well as system optimization, should be measured across the entire FX platform. Because when the technology is closely integrated, the LMS solutions can really shine." He adds: "the whole concept of Liquidity Management is still relatively new and has essentially grown up over the past 12-18 months. There aren't many true LMS systems available on the market today."

TraderTools is one vendor that starts conversations with banks about the individual modules that make up an overall LMS architecture – based on their immediate pain points.

"While some of these institutions already have Risk Management systems processing FX trades end-to-end, the issues really centre on whether they can process the information and flow required, fast enough to extract the value they need."

Integration

As to integration issues, Gozlan states: "Today there are not really so many issues if there is an existing LMS in place within an institution. However, what's important is to have a common transport - a common technology - to transport data from the trade. Typically it is in place."

With connectivity being in situ, he contends that it is not that difficult to basically cut out the existing component and replace it with one that is even more sophisticated. What can be sometimes be "problematic" is around a bank's desire to redesign the front end - facing out to clients. Gozlan notes that the other element that may require some work is when a decision is made to extend out to other asset classes – within FX and beyond.

For example, if bank chooses to expand its FX spot LMS system into FX plus options, the existing LMS system has to combine two different workflows. "For spot FX they may have streaming [prices] whilst FX options could be RFQ-based. While we can undertake this as a vendor, it is not so much a legacy problem but more an organisational issue for the bank or

financial institution in question." According to Kriskinans, vendors are proving themselves "tremendously experienced" within their particular realms of technical competence. As the market is driven towards automation, vendors are offering their knowledge and expertise in handling new scenarios that arise.

"Typically each bank will want to control and own the intellectual property it creates when it defines its hedging strategies, spreading matrix and smart order routing algorithms," notes Kriskinans. "But [also] vendors are there to provide a workbench of core functionality and support that facilitates this process."

Build versus buy

A number of factors will influence whether FX trading firms should consider developing their own proprietary LMS infrastructures or outsource this function. "Time to market is also a key factor in deciding to outsource to vendors," says Kriskinans. On top of this, he adds that banks must consider the time and costs involved in developing in-house and the skilled resources required to ensure integration to multiple systems - price engine, hedge, credit, etc. This may not necessarily be available at all banks.

Kriskinans adds: "In the same way that it is unnecessary in 2010 for a bank to write its own STP feed handlers, when companies like DealHub can supply these type of solutions off-the-shelf, there are best uses of resources where the bank can create its own IP, and logical outsourcing decisions where vendor solutions are tried and tested." The modern Liquidity Management solution is therefore most likely to be a collaboration between the bank's in-house expertise and the vendor's ability to deliver the latest innovations in technology and process.

BayernLB deploys a Liquidity Management platform

BayernLB is the leading Bavarian commercial bank for large and middle-market corporate customers in Germany and Europe. One unit within the bank that has consistently outperformed over the past few years is the FX trading department, headed by Marc Burgheim. Although profitable, the unit is still largely based on manual trading.

Automation is the Challenge

Marc knew that FX trading was providing stable earnings for the bank. But he also knew that those earnings "could be increased with the right investment." The right technology was the answer. If much of the FX trading could be automated, Bayern would be able to offer better prices, more Liquidity and quicker response times than any other bank in its peer group.

Step 1 was Aggregation, in order to reduce spreads and increase profitability. Step 2 was full STP, in order to be able to increase trading in Options and Emerging Markets.

Marc checked out various Aggregation tools as well as ECNs with Aggregation functionality. The problem was that each one of these solutions would have to be integrated with additional tools in the future (i.e. to handle algorithmic trading or auto-hedging).

Integration is the Answer

After a relatively short, evaluation period the TraderTools' Liquidity Management Platform™ (LMP) was chosen and went live in the Bayern FX trading room.

With manual trading, it is humanly possible to handle only 2 or 3 Liquidity sources at a time. Now Bayern FX traders are "more than happy" being able to stream 5 or more separate Liquidity sources at a time.

"What sold us on TraderTools was the fact that its LMP offered a lot more functionality than just Aggregation," explained Marc. "We're looking forward to activating algorithmic trading and auto-hedging functionality in the near future."

The flexibility is then created to migrate some currency pairings off into an automated Liquidity Management and hedging solution, whilst leaving existing pricing arrangements in place for less active pairings. And he says, when the bank is ready to expand coverage, the "migration path is in place".

Latency is clearly a key issue to be solved. Banks often ensure this is minimised by having three separate instances of their price distribution system - each one serving the clients in the global region. With new