

MTS Markets

Automated Bond Trading: Optimising the Opportunity

For various reasons, including the diversity of securities, bonds have historically lagged other markets, such as equities and foreign exchange, when it comes to automated trading. Nevertheless, particularly in an environment being reshaped by regulation, there are growing signs that bonds will soon be catching up in the automation stakes.

Automation of fixed income trading offers numerous opportunities and advantages to all participants. The removal of manual processes and paper significantly reduces frictional costs, which in turn also lowers the entry barrier to wider participation, in terms of both participant size and diversity. This consequently begets better liquidity and more efficient price discovery, which deliver more predictable trading outcomes for all.

However, attractive as this sounds, whether or not these various benefits are realised in practice depends heavily upon the way in which the market concerned handles the automation process. As has been seen in some of the less successful examples of automation in equities and foreign exchange, mistakes made in structuring a particular trading platform and its associated processes can have negative consequences. Toxic order flow, spoofing, activity skewed in favour of one participant group, to name but some. The key here is to ensure that automation of bond trading results in an orderly market in which all participants enjoy equal advantages on a level playing field.

The Scope of Automated Trading

Automated trading covers a number of areas of activity, some more applicable to the buy-side, some more to the sell-side and some to both. The recent BIS report - "Electronic Trading in Fixed Income Markets"¹ - identified three principal areas of automated trading activity applicable to fixed income. In all three of these areas, given a suitably orderly and well-managed market place, all participants could potentially achieve appreciable and tangible benefits.

Trade execution

The use of order execution algorithms that split trades into smaller 'child' orders has become commonplace among the buy-side in equity and FX markets and is also now present in fixed income, increasingly in the context of multi asset trading. By reducing market impact and by also being able to take advantage of price improvement opportunities on each order slice, significant cost saving and additional alpha capture become possible.

The problem for the sell-side is that as buy-side fixed income algorithmic order execution continues to grow in popularity, the costs in a non-electronic, non-automated environment become exorbitant. Having to deal with multiple buy-side child orders in such an environment creates a major cost and efficiency issue for the sell-side in terms of manual and paper processes. By contrast, in an automated environment, sell-side participants can manage and optimise the incoming flow electronically and use their own execution algorithms to manage any resulting net exposure.

¹Bank for International Settlements January 2016

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However, much depends upon the availability of a suitable electronic trading environment to facilitate this process flow. The ideal is for the sellside to have access to a carefully managed, regulatorily compliant, electronic trading platform that incorporates sellside and buy-side environments. On the one hand, this allows the sellside to interact efficiently with buy-side order flow, so costs are kept to the minimum and the buy-side trading experience is optimised. On the other, sellside participants can facilitate buy-side business secure in the knowledge that they can also count on an orderly interdealer market that offers similar certainty of execution. They can then deploy their own execution algorithms in this interdealer market to lay off risk in the most efficient manner possible. "This ideal combination is precisely what MTS delivers by catering for both the buy-side and sellside," says Fabrizio Cazzolini, Head of MTS Technology.

However, the successful development of both buy-side and sell-side execution algorithms obviously depends upon the availability of historical data. Furthermore, such data needs to be available for a substantive date range and of course be clean if it is to facilitate the building and realistic testing of algorithms. "MTS addresses this need by providing tick by tick data for the past five years," says Simon Linwood, Head of Credit Markets and Data at MTS. "This includes more than 30 billion individual price points representing more than EUR12 trillion of single counted executed volume."

Market making

Regulation has had a major impact on fixed income market making. For instance, it is now no longer permissible to cross-subsidise market making with other activities, such as proprietary trading, so market making now has to operate profitably as a business in its own right. This, coupled with the capital cost of maintaining inventory, has already caused some banks to switch to an agency only business model and/or turn away certain buy-side clients.

Automated trading has the potential to reverse this situation. The cost of technology with which to access suitable electronic fixed income venues has fallen, so Tier 2 banks now have a real opportunity to participate and service their buy-side clients directly. Buy-side clients that might have become non-viable, may again become viable due to lower frictional costs and a reduced need to maintain capital-intensive inventory. Platforms such as MTS BondVision exemplify this opportunity.

However, for this automated business model to work successfully, banks also need to have access to suitable electronic platforms offering orderly markets that will allow them to lay off any exposures resulting from buy-side business with certainty. And (as with algorithmic execution) a source of clean and reliable historical data is also needed to facilitate building and realistic testing of market making strategies.

Finally, there is the need for any trading platform to be able to deliver the type of information required for regulatory compliance automatically - for instance, best execution and transaction cost analysis.

The need for this combination of market making facilities is becoming increasingly apparent. Market making in fixed income has been steadily moving away from being a manual to an automated activity for some time now. This is clearly reflected in the migration of personnel with automated market making expertise in FX and equities into fixed income to handle large volume vanilla activity. This automation of less challenging flow improves efficiency by freeing up human traders to focus on instruments/situations that are more demanding from a market making perspective.

However, achieving this desirable situation depends on not just the right trading venue, but also on the quality of real time data the associated platform can deliver. "One of the most crucial elements in the successful automation of hedging activity is having access to the most granular and timely data," says Simon Linwood. "For this reason, we worked intensively with members of our MTS Cash market to create MTS Live, which was launched in 2012 and has now been adopted by several leading market makers. The service provides real-time un-aggregated order book depth, displaying every price and order with microsecond time stamps."

Banks making markets in fixed income securities can benefit from significant additional efficiencies if they have access to a platform that can provide both interdealer and dealer-to-client markets. The technological and cost barriers are lower, particularly if the platform supports industry standards, such as FIX, for both markets. Banks can thus connect a broad range of tools that automate the trading and hedging processes, as well as downstream and upstream activities - such as managing positions and trading activity with clients.

Although a suitable platform is essential to facilitate profitable market making, so too are tools that deliver certainty of execution and price. In the interdealer MTS Cash market MTS offers a MidPrice facility, which enables participants to leverage automation and take advantage of narrow spreads by trading on the median average of the bid and offer rates for a wide range of fixed income securities. This means that buy-side business can be transacted in the certain knowledge that any resulting risk exposure can be reliably and quickly hedged.



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Directional, relative value and arbitrage strategies

The buy-side business of capturing fixed income alpha has recently undergone a fundamental change. In the past, some of the largest asset managers automatically benefited from price improvement, as their banks were prepared to offer advantageous pricing through cross-subsidy. However, activities such as crossing the spread to oblige a major client are no longer possible as they are forbidden by regulation. In addition, as buy-side firms' trading strategies become more sophisticated (e.g. multi asset trading), their need for trade automation becomes ever more pressing.

This combination of buy-side needs and changes driven by regulation has seen some banks completely withdrawing from acting as principal and only being prepared to act on an agency basis. Some buy-side clients - who have become accustomed to banks taking the execution risks by acting as principal - are uncomfortable with this, as they are unwilling to assume this risk themselves.

Elsewhere, some of the largest buy-side firms have responded to this change by looking for ways to trade directly amongst themselves. However, this isn't a straightforward matter because of the interconnectivity needed, though some peer-to-peer fixed income venues have already emerged. Another response from some trading venues has been to allow a mixture of buy-side and sell-side participants in a single combined environment on a relatively unmanaged basis². However, in some cases this has resulted in a sharp decline in average trade and quote sizes, top of book quote sizes and quote lifetimes.

A carefully managed electronic environment, that incorporates both sell-side and buy-side activity in a precisely controlled fashion, addresses these potential issues. Access to liquidity for the larger asset managers would be improved, while still leaving the door open to price improvement. By the same token, smaller asset managers would enjoy a relatively low cost of entry in terms of technology. In both cases, strategic flexibility for the development of more sophisticated multi asset strategies would be enhanced.

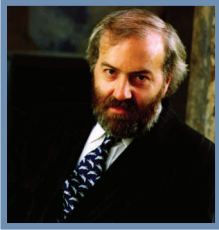
Conclusion

The fixed income market currently has several pressing needs that automated trading, combined with the right electronic venue, could address. Certainty of execution and reduced costs for both buy-side and sell-side are clearly major priorities. In particular, regulatory changes have substantially increased the capital costs to the sell-side of holding inventory. Automation adds value in the general sense here, but also in more specific ways, such as enabling mid tier dealers to participate fully and by doing so fill any gaps in coverage for the buy-side.

Satisfying these needs also brings wider benefits to the market as whole. Broader participation, plus the opportunity to transact more business in a predictable manner, will also enhance overall liquidity - both in terms of immediate sell-side to buy-side opportunities and by facilitating a wider range of trading strategies. Nevertheless, the key requirement to ensure all this becomes a reality is a trading platform that can offer the right combination of markets, tools and data.

²Bank for International Settlements January 2016



**Andy Webb, Writer**

Andy Webb has been writing about a broad range of topics relating to financial markets for more than twenty years. He also provides consulting services to hedge funds,

prop desks and CTAs on systematic and automated alpha models including programming those models in specialist environments.

Regular writing subject areas include:

- Automated and algorithmic trading
- Back office and investment services
- Derivatives
- Financial modelling, including technical analysis and statistical arbitrage
- Financial technology
- Hedge funds, conventional funds and CTAs
- High net worth and private banking investments
- Treasury, trade finance and transaction banking

**Simon Linwood
Head of Credit
Markets and Data**

Simon Linwood joined MTS in 2012 and is responsible for European credit trading across all MTS markets and is also

the head of MTS Data. Based in London, Simon is responsible for revenue, product development and strategy for MTS Credit and MTS Data.

Simon has over 16 years experience in capital markets and financial services having started his career at JP Morgan in 1998 on the London repo desk and then moving to Credit Suisse where he worked on the Debt Capital Markets Syndicate desk for Supranational, Sovereign and Agency new issues. More recently, Simon was a one of the first employees at CapitalStructure, a start-up newswire company covering the European High Yield and Leveraged Loan markets.

Simon holds a degree in Business Administration from University of East London.

About MTS

MTS Group facilitates a number of regulated electronic fixed income markets across Europe and the US that are managed centrally to ensure optimum levels of global harmonisation and consistency. Over 500 unique counterparties trade an average volume of €100 billion each day on these platforms.

The individual companies within the MTS Group are regulated by financial services regulators in a number of European jurisdictions, including Financial Conduct Authority (FCA), Italian Ministry of Finance, Banca d'Italia, Consob, Autorité des Marchés Financiers (AMF), and in the United States by FINRA and SEC.

MTS Cash is a comprehensive and professional cash securities trading environment for the interdealer marketplace. MTS cash includes several domestic markets regulated in different jurisdictions enabling primary dealers to access unparalleled liquidity, transparency and coverage.

MTS Repo provides an order-driven market for the electronic transaction of repo agreements and buy/sellbacks in Italy.

MTS BondVision is a trusted and efficient multi-dealer-to-client electronic bond trading platform, delivering exceptional access for institutional investors direct to market makers. MTS BondVision is accessible in Europe from the Italian and the UK legal entities and in the US through the US legal entity of MTS Group. On the BondVision platform, MTS Group provides institutional investors with real-time pricing and the ability to trade with the major dealers.

MTS Credit provides a variety of electronic execution methods for a wide range of multi-currency non-government bonds, including covered, SSA, corporate and financial bonds. MTS Credit is composed of financial instruments available to trade on both BondVision and MTS Prime.

MTS Swaps leverages existing MTS Group distribution technology to deliver immediate access to a diverse range of liquidity providers through your chosen prime banks.

MTS Data is sourced directly and exclusively from the MTS interdealer market and includes benchmark real-time data, reference data, reference prices and historical data, providing the benchmark data source on the fixed income market.

FTSE MTS Indices are operated by FTSE TMX Global Debt Capital Markets, in which MTS has a minority stake. They provide independent, transparent, real-time and tradable Eurozone fixed income indices, based on tradable prices from MTS. FTSE MTS indices are tracked by (and can be traded via) around 40 ETFs in addition to numerous structured products.

www.mtsmarkets.com

Contact

Find out how we can enhance your fixed income trading business by speaking to our expert team:

Email
sales.group@mtsmarkets.com

Telephone
+44 (0)20 7797 4100

www.mtsmarkets.com

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