

# A practical guide to buy-side automation in credit markets

Gareth Coltman, Head of European Product at MarketAxess, looks at how automating buy-side trade execution works in real life, and why it should be embraced and not feared.

The headline concepts of ‘automation’ – AI, machine learning, robots, even self-aware machines – are steeped in the fears of popular culture. From 2001: A Space Odyssey to Terminator to The Matrix, we’ve been led to believe that a world of smart machines is potentially apocalyptic. The end of civilisation as we know it.

In our industry, more often than not this has translated into a single, very tangible fear – that jobs and human intelligence will be irrevocably lost.

Credit lags behind other OTC markets, such as treasuries and FX, in the adoption of automation. Largely due to the opaque and idiosyncratic nature of credit markets. There is, therefore, concern about the future role of the execution trader and the ‘unintended consequences’ of automation. But the emerging reality could actually be quite different:

- A recent study from Gartner predicted that, while around 1.8 million jobs could be lost due to AI by 2020, a further 2.3 million jobs would actually be created.
- Sell-side use of algorithms is exploding (up 160% YoY on MarketAxess alone), and the emergence of AI-derived pricing tools like MarketAxess Composite+ is driving increased automation across many buy-side firms.

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The narrative is shifting. In the space of just 12 months, automated buy-side execution on MA has gone from 0% of trades, to nearly 10%. So now is a good time to briefly outline how a common sense approach to automation can enhance returns and enable smarter, more efficient trading desks that are recognised as adding value to their investment process.


## But why bother?

Do we even need automation? How much benefit can it really bring?

The most immediate and obvious answers are cost and efficiency. Buy-side firms are being asked to provide greater returns for less expense, and to clearly and consistently demonstrate best execution. The landscape is increasingly competitive.

It is also increasingly complex. The credit securities universe is huge, diverse and is getting bigger (e.g. the increasing number of bonds in issue and the emergence of new markets). Liquidity provision is also becoming more fragmented, with more alternative sources of liquidity than ever before. All of this creates millions of shifting data points per day that need to be considered when determining the best approach to execution.

As the workload increases, we need to find better ways to put more operational capacity back into the hands of the traders – allowing them to use their creativity and intuition by taking away repetitive, low value processes. We need to put the machine to work.

A professional headshot of Gareth Coltman, a bald man with a light beard and mustache, wearing a dark blue suit, white shirt, and dark blue tie. He is looking directly at the camera with a neutral expression. The background is a blurred indoor setting with warm lighting.

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In short: by automating the collection, aggregation and analysis of data, and then allowing low value, low risk orders to be executed without human intervention, traders are able to spend valuable time focused on alpha generative opportunities, or managing execution risk.

### What is the most important factor to consider for successful auto execution?

It's all about the data.

The most important function of any auto execution solution is its ability to establish 'context' – i.e. to determine if the responses from liquidity providers are objectively the best available. Credit markets have traditionally relied on post-trade transparency to illuminate activity in any given bond. But this creates a challenge if you need a reference price for automation, and your closest reference point is TRACE data from weeks ago. This lack of pre-trade, reliable reference pricing information has historically been a significant barrier to automating credit markets.

The solution is to capture every available market data point, including quotes and trades, indicative and firm, intraday and historic, from all known and anonymous sources, and even include data from other similar bonds where relevant. Once you've captured all this data, you need to aggregate it into some form of sophisticated average, removing outliers and bias and apply appropriate weighting to the most relevant inputs. And do this in real-time to ensure it is always accurate and up-to-date.

This complex and potentially expensive process is actually what our CP+ solution does for clients and dealers. And that's why it has become the foundation for our client's automation approach. But whatever data source you choose, it's vital to recognise that credible data forms the absolute, single most important piece of a successful automation strategy.

### How do I get started on our automation journey?

Take your time – evolution doesn't happen overnight.

The idea of implementing an automation solution can seem daunting in terms of technical and workflow change, and bad decisions at early stages can have significant ramifications later on.

It's important to start slowly and carefully, selecting a solution that allows you to move step-by-step and remain in control throughout. The desired end-goal may be a fire-and-forget/black-box type solution, but day 1 you will want to stay hands-on, with control and transparency at all times.

Make sure your best-ex policies and practices are clearly defined as this will become your automation ruleset. And plan to spend a significant amount of time and effort reviewing the quality of the data sources you intend use to underpin your automation approach.

### What and how much can I automate?

Despite the diverse nature of credit, the opportunity for automation is still significant. In fact, we estimate that around 45% (according to TRACE) of all institutional credit orders have the potential to be automated based on their size (under US\$1m) and the fact they are liquid. Buy-side firms are using MarketAxess Auto-ex for nearly every type of bond, including, HG HY, Eurobonds and EM.

Each firm is likely to have a personal view of how much of their activity might be suitable. We help clients with the process by providing a predictive model of the impact of Auto-ex on performance and throughput. This allows clients to experiment with parameters to optimise between their ambitions for the level of automation whilst ensuring performance is preserved. Post-trade TCA is also available, creating a feedback loop which to allow you to tweak your parameters and optimise your execution.

### In conclusion

There is little doubt the trend towards automating credit markets has begun and appears to be accelerating. Fundamentally, automation should be thought about as a way to give the buy-side trader the time to focus on important things – adding value to the investment process, managing important human relationships and learning how to get the most out of technology. Humans will always be involved in creating, guiding, and improving the machine, and ultimately traders and firms who understand how to leverage this technology and extract the most value from the machine will be the winners. ■