

Alpha profiling, strategy toolkits, broker scorecards The keys to best execution?

Various tools are emerging to help buy-side firms optimise their broker selection for best execution. Examples include algo wheels, broker scorecards and bracketing frameworks that allow for effective monitoring of broker performance on an ongoing basis. Joel Clark and Mike O'Hara of The Realization Group discuss the most effective use cases for alpha profiling and the challenges that may be associated with such an approach. They talk to Dan Royal of Janus Henderson Investors, Allan Goldstein of Trade Informatics, Michael Broadbent from the Ergo Consultancy, Adam De Rose of Eze Software and Bips Global's Mark Northwood.











Buy-side trading used to be a fairly conventional and standardised practice. Portfolio managers would construct their strategies and relay orders to the trading desk, where the traders would pick up the phone to their favoured brokers to strike a deal. The trader, acting on behalf of the fund manager, would play little or no part in the portfolio construction process, but would simply be responsible for securing the best price.

Much has changed in recent years and this operating model is gradually evolving. Not only has electronic trading permeated financial markets, but the proliferation of algorithmic execution tools has added to the complexity of the execution process, bringing new opportunities for efficiencies and cost savings.

The diverse range of execution options brings its own challenges for buy-side firms, however, not least the need to navigate multiple broker tools and identify the best option for every trade. For **Dan Royal**, Global Head of Equity Trading at Janus Henderson Investors, the lightbulb moment came some years ago when he was trying to compare two algos - NightHawk and NightOwl - to determine which was more aggressive. Bizarrely, Royal found himself considering the characteristics of the two animals to make his choice.

"From an algo perspective, there had just been a proliferation [mass marketing] of tools. Historically we took everything from everybody and had access to too many algos that we just didn't properly understand. When we moved on to an execution management system, it gave us more flexibility to try new things and we introduced the concept of bracketing," says Royal.

Starting off with four basic brackets, ranging from passive to aggressive, Royal and his team were able to prune the list of algos they would use, grouping them together to better project the outcome of different strategies. Descriptions of each bracket would be based in part on impact expectations, so a passive algo would not be expected to move the stock, whereas an aggressive algo would have much greater market impact.

"We set our expectations clearly, so in a passive algo you would expect a participation rate at a certain level while with an aggressive one you would expect to participate at 80-90%. If you then found you weren't participating enough, you could quickly cancel and move to the next bracket," says Royal.

"We needed a process that looks at trades from a qualitative perspective to confirm whether a particular strategy is achieving expectations. As the traders begin to use different providers within each bracket, they get a sense of which one best meets their expectations."

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Dan Royal, Janus Henderson



The firm also removed the colourful naming conventions used by many banks that had led Royal to his original epiphany, so that algos are no longer identified by the bank's chosen labels but rather by a simple numbering system combined with the bank name. This made it easier to conduct quantitative comparison of algos without subjectivity.

Since introducing the bracketing system in 2009, Janus Henderson has reduced the number of algos it uses from 250 to fewer than 45. The firm has also modified the system over time, introducing new brackets - it now has seven in total - and setting restrictions so that if an algoallows the price to move beyond pre-set parameters for a given bracket, the order will be shut down and sent back to the trader.

"The approach has evolved over time, but in general having this constant qualitative and quantitative analysis allows us to see if our providers are doing a good job on a relative basis and point out where there appears to have been a decline in performance," says Royal.

Janus Henderson may be one of the more advanced firms in managing its counterparties, but bracketing is not the only emerging approach that allows trading desks to optimise broker selection. Another increasingly common strategy is the concept of a broker wheel, whereby the trader sets rules to adjust order allocation based on pre-set criteria. Broker scorecards are also being used to gather information, monitor performance and determine which counterparties are delivering consistently strong performance.

But there is a deeper change taking hold within some investment firms that may ultimately have an even greater impact than the use of broker wheels or bracketing. That is the closer integration of portfolio management and trade integration; by bringing traders into the asset management and allocation process, firms may find they can achieve better results.

"Asset managers can enhance returns by tying their portfolio ideas directly into an execution strategy. The choice of execution strategy has typically been left to the buy-side trader, who is separated by one or two degrees from the idea generation process and very often unaware of how good the idea is. The real thought leaders are those firms that can bring the two functions more closely together," says Allan Goldstein, Chief Operating Officer at Trade Informatics.

" Asset managers can enhance returns by tying their portfolio ideas directly into an execution strategy"

Allan Goldstein. Trade Informatics



Given every portfolio idea is different and will therefore have unique execution requirements, there is clearly a benefit to having both portfolio managers and traders working together to make the right decisions.

Some portfolio ideas can be traded passively, for example, whereas others will require block liquidity, and while some can be traded over a period of days, others might need to be executed more quickly. Quantitatively discovering objectives and optimal implementation approaches of each order source is referred to as **Alpha Profiling**.

"Portfolio managers typically set the level of urgency and timing, sending the trader out to choose an execution strategy. What we think is a better approach is to have a pre-defined list of customized strategies for each order source, which might be a particular portfolio manager, analyst or portfolio segment. Instead of choosing from hundreds of algos, the trader would choose from three or four that have been crafted specifically to fit the particular order source through the Alpha Profiling research," says Goldstein.

Today, broker wheels or bracketing systems help randomise and bucket the selection of brokers that fit a particular use case. This can help remove discretion and potentially ensure a more balanced execution of the strategy. Certainly, it is a move in the right direction helping to wade through the dizzying array of available strategies.

"The idea of bracketing is that every order falls into a specific use case that is determined by the buy-side trader in concert with the portfolio manager. Performance is the main driver for anyone seriously looking at this kind of model – it has the potential to save investors at least one or two pennies per share, which dwarfs the commissions they are paying right now," Goldstein explains.

Today's regulatory drive for unbiased and demonstrable best execution has paved the way for broad adoption of the broker (algo) wheel. The core concept behind the wheel is to choose your trading objective, which is supposed to lead toward strategy selection and setting of parameters. Then broker randomization is achieved with the wheel allowing for measurement without selection bias.

"The question with algo wheels is, will Broker A's VWAP under the same set of parameters perform meaningfully different from Broker B's VWAP? Will this process end with concentration of the best performing VWAP providers barely edging out the worst performing? Does this provide for honest best execution or a checkbox for regulators?" asks Goldstein. "An exercise focused on optimizing trading parameters and urgency for a given order source using Alpha Profiling research will yield significant alpha relative to broker selection."

"Robust quarterly reviews of algo wheels may be sufficient to satisfy regulatory requirements for best execution. Broker wheels and algos in general enable you to run your trading desk with less staff. Because most orders at a typical firm are small, easy trades, they can be automated through an algo without human intervention, leaving a minority of more complicated orders to be handled by humans," says **Michael Broadbent**, Principal Consultant at Ergo Consultancy and formerly head of trading at Otus Capital Management.

"Robust quarterly reviews of algo wheels may be sufficient to satisfy regulatory requirements for best execution"

Michael Broadbent, Ergo Consultancy



However, some remain sceptical about broker wheels and algo wheels.

"By focusing only on the top tier of brokers or algos, a firm might find itself whittling down its counterparty list to such a degree that the list only has a few constituents. There needs to be a way to replenish the wheel," says **Adam De Rose**, Head of Sales Engineering for EMEA at Eze Software.

"Experimentation is an important part of achieving best execution, and you perhaps need to have an excusable amount of trading that may not hit best execution but without which you can't determine if the majority of your flow is achieving best execution," says De Rose.

"Some wheels rely on the trader to choose the strategy, and then the wheel randomises the broker from a shortlist populated using broker scorecards. This can be achieved using rules-based order routing, which is nothing particularly new in itself, except that now people are feeding back into it the empirical results of their trading to update the decisions the tool makes", he adds. "What we are starting to see is this creeping further back along the chain, taking the order originator and alpha profile into consideration to lead to the suggestion of the strategy itself, again all informed from the results of post-trade analysis."

"Experimentation is an important part of achieving best execution"

Adam De Rose, Eze Software



While the concept of a broker wheel and other forms of trade automation may not be entirely new, advances in technology mean such mechanisms may now be more effective, contributing to their rising popularity. **Mark Northwood**, Principal at trade execution consultancy Bips Global and formerly global head of equity trading at Fidelity, believes a thorough understanding of one's order flow should be the priority for any trader.

Being able to differentiate incoming orders as they come in from the portfolio manager, group them into particular buckets and select the most appropriate broker or algo on the basis of the order's unique characteristics should be second nature to any experienced trader, Northwood says.

"Alpha profiling is certainly not new, but what is new is the ability to evaluate the information systematically using diverse data sets that can be collected throughout the investment process. Doing this properly means looking at much more granular information about each individual order – who generated it, was it triggered by a particular event or piece of news, and what alpha factors might be relevant," Northwood explains.

While the outcome of such analysis can clearly add value to the quality of a firm's execution, it is a significant step change for those firms that have not previously engaged in alpha profiling. Trading desks need not only to devise a clear framework for the way in which they will profile and bracket particular order types, but they also need to keep on top of large amounts of data to ensure that the process remains up-to-date and effective.

"Alpha profiling can allow you to look at all of your historical orders and determine what would have been the best way to execute them"

Mark Northwood, Bips Global



"True best execution requires perfect foresight, which predicts other parties' orders and intentions, and how others will respond to your chosen placement strategy. This is neither possible nor or legal, but the next best thing is perfect hindsight. Alpha profiling can allow you to look at all of your historical orders and determine what would have been the best way to execute them if you had had the benefit of foresight," says Northwood.

Technological advances and the increasing depth of available data may well be the catalysts that have led to more sophisticated alpha profiling techniques, but most market participants agree that the physical amalgamation of the trading and portfolio management functions is equally critical.

De Rose believes there is still a fundamental cultural separation between portfolio management and trading that has yet to be overcome in the majority of firms. In larger institutions, individual portfolio managers may not even be known to the trading desk, and even where they are known, the messages that pass between the two teams often tend to be sanitised and impersonal.

"Effective analysis should go much deeper than just looking at historical performance. The real narrative that traders need is around who sent the order and why, what strategy is being pursued, and is this trade part of a broader strategy? This information is often not passed on, but it is crucial to achieving the best result," says De Rose.

"There is definitely a gap in understanding of the portfolio manager's thinking behaviour," he adds. "If there is a system that can scientifically address that issue, encapsulating it into meaningful advice for the trader at the point of receiving the order, then we would be light years ahead of where we are now."

While there may well be some way to go before effective alpha profiling is deployed across the industry, the most compelling proof of its value comes from those firms that are already using it. Janus Henderson's Royal tells of one broker that had been a top counterparty but the broker scorecard showed its performance had diminished over time. After some back-and-forth dialogue between the two firms, Royal pulled all of the broker's teams into a meeting to discuss the key issues, which ultimately led to major improvements.

"They pulled all of their resources and dug deep into the system to identify the key issues. They worked on changing some of the logic that had been built into the system over the years and now it's a much better product and they have moved back to number one or two spot for us," says Royal.

"I believe they have seen similar feedback from other clients that there has been an improvement in performance across the platform. This was a great example of how the broker scorecard can lead excellent outcomes for both parties."

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