

THE
2024
ALGORITHMIC
TRADING
SURVEY

LONG-ONLY

A more optimistic outlook for the algorithmic trading landscape

In a record year for respondents in The TRADE's Algorithmic Trading Survey, the landscape has proven to be more promising, with respondents highlighting ease of use and customer support as a top priority, and only a handful of categories continuing their downward trend this year.

With an increasingly complex and interconnected market, the need for speed, precision and automation has become of vital importance. From the initial days when algorithms were simple rule-based systems, executing predefined strategies, to the current landscape where machine learning and artificial intelligence-driven models exist, advancements in algorithmic trading have become essential to the adaptability of financial markets.

The buy-side has voiced simplification and automation as key focus areas within this environment. Algo strategies are being adopted with the goal of enabling high-touch traders to navigate market conditions dynamically, while ensuring algo strategies remain simple so that they can be correctly measured

and compared.

This year, The TRADE's Algorithmic Trading Survey 2024 shows a little more promise and optimism than previous editions. Following on from the downward trends of 2023, we have seen some upticks in ratings from buy-side traders who took part in this year's survey.

While long-only managers have logged an overall rating of 5.81, which is only marginally higher than last year, it is when we delve a little deeper that we observe some of the more interesting trends. Firstly, it is important to note that there has been a stark increase in ratings submitted in 2024 - a record year in fact across the survey's 17-year history.

Attention must be called to anonymity and execution consulting, both moving up 0.08 points, while cost has increased by an overall 11 basis points. Despite these significant increases, these categories are

not our high scorers. Instead, taking the top spots this year, we have ease of use (5.97) and customer support (6.03).

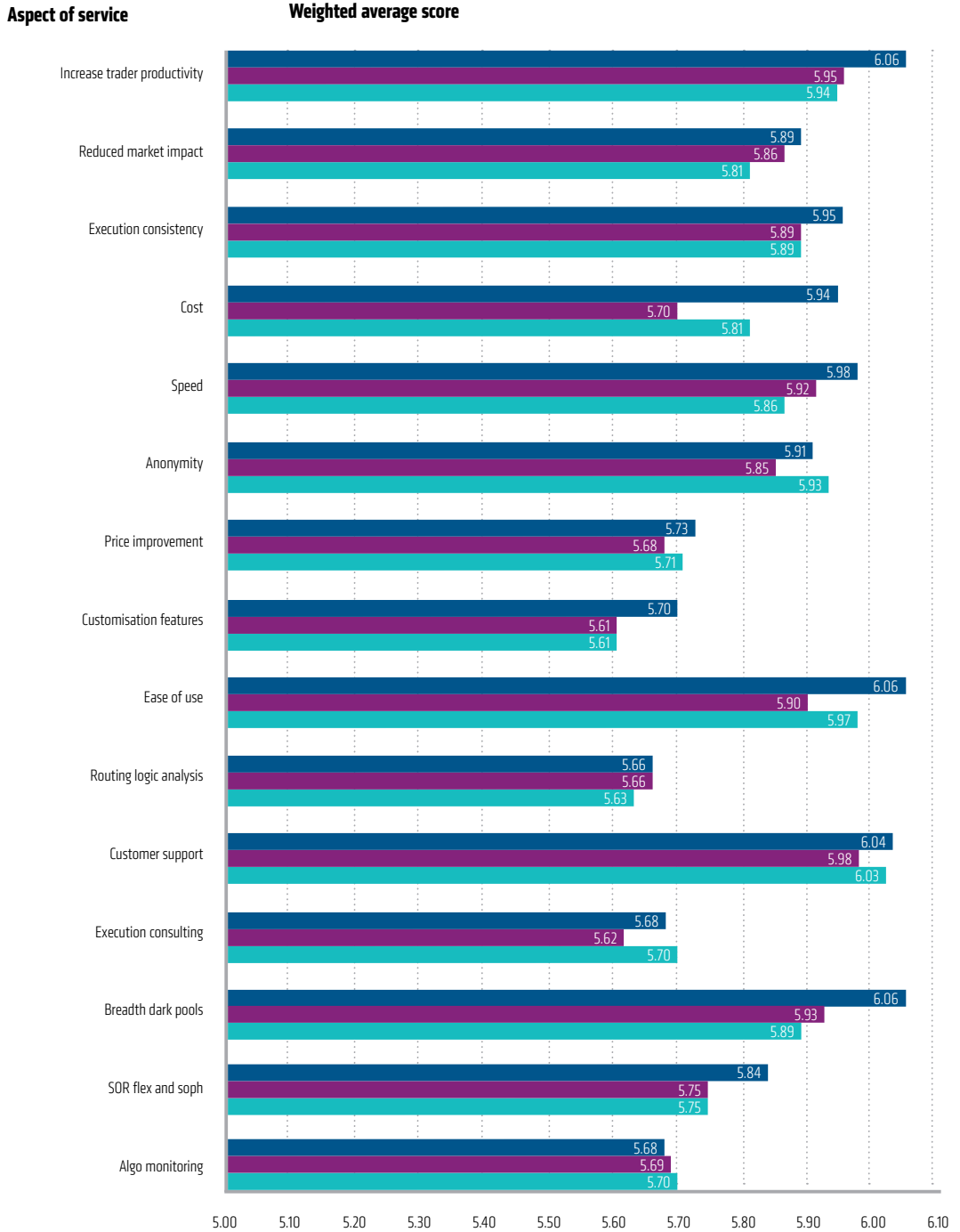
In fact, customer support is the highest scoring category this year - almost returning to its 2022 height (see figure 1). While last year, traders reported having a frustrating and challenging 12 months, it would seem that there is a little bit of light at the end of the tunnel.

There are only a handful of categories which have continued their downward trend this year, most notably being speed (-0.60), and routing logic analysis (-0.04). It is also worth noting that breadth of access to dark pools has seen a decline in its rating, moving down 0.05 since 2023.

This is particularly interesting, as, looking through the respondent comments, a significant number of them (6%) have reported that they are especially happy with their

Figure 1: Rating of algo performance

ALGO 2022 ■
 ALGO 2023 ■
 ALGO 2024 ■



access to dark pools. In fact, many traders have gone so far as to say their providers are the “best” when it comes to dark pool access. An interesting discrepancy between the quantitative ratings submitted and the qualitative feedback provided by buy-side traders. Customer support received the highest score this year (6.03) and was the only category to receive a rating above 6.00 (very good), followed by ease of use (5.97) and increased trader productivity (5.94).

The geographic distribution of respondents in this year’s survey was similar to that in 2023, with increases in regions such as North America (13%) and APAC (5%), however, traders based in the UK (34%) and Europe (48%) continue to dominate the pool of respondents. In terms of asset classes, 94% of all long-only managers responding to the survey trade equities, whereas other instruments traded electronically included ETFs (57%), fixed income (37%), FX (37%) and listed derivatives (23%). It may be important to mention here how long-only managers are measuring the performance of their algorithms. The majority of traders report that they use VWAP TCA (34%), implementation shortfall TCA (32%) takes second place, followed by liquidity capture (20%).

Of course, when it comes to why buy-side traders use algorithms, the top reason is fairly simple: ease of use. Looking over at figure 2, it is clear to see that over the past three years this answer has consistently taken the top spot, and this year, once again it is followed by reducing market impact,

Figure 2: Reasons for using algorithms (% of responses)

Feature	2024	2023	2022
Ease of use	▲ 12.51	12.18	12.25
Reduce market impact	▼ 11.41	11.43	12.03
Consistency of execution performance	▲ 10.71	10.02	10.74
Increase trader productivity	▼ 10.60	10.64	10.87
Greater anonymity	▲ 7.99	7.67	7.85
Higher speed lower latency	▲ 7.48	6.58	6.87
Flexibility and sophistication of smart order routing	▼ 7.19	8.14	7.35
Better prices (price improvement)	▲ 7.07	6.94	7.94
Algo monitoring capabilities	▲ 6.58	6.29	5.67
Customisation capabilities	▼ 6.10	6.45	6.33
Lower commission rates	▼ 5.77	6.95	6.77
Data on venue/order routing logic or analysis	▼ 3.96	4.86	3.93
Results match pretrade estimates	▲ 2.64	1.84	1.39

although note that this response is down marginally from last year. The next response is new to take third place - consistency of execution performance.

Once again results match pre-trade estimates and data on venue/order routing logic or analysis makes little impact on why buy-side traders choose to use algorithms. Having stayed bottom of the chart for the last three years, this will come as little surprise to our readers.

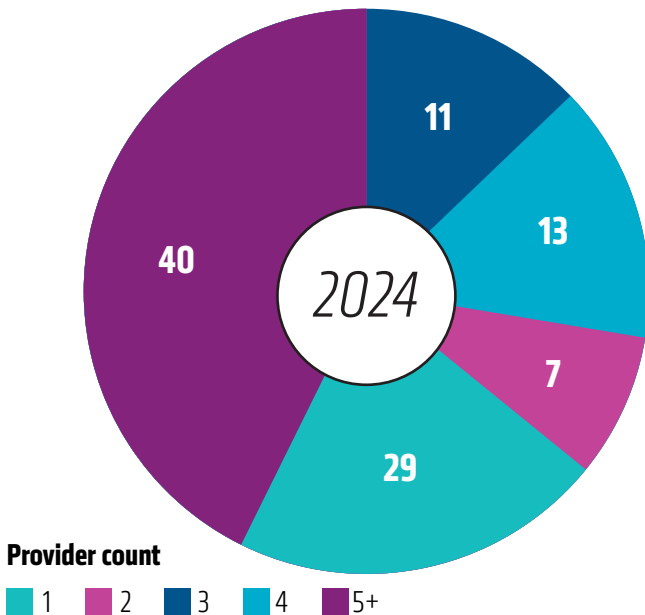
What is noteworthy is that lower commission rates have taken a significant downward

turn, falling 1.18 points. This could be due to saturation, in which the market may already have a large portion of traders using algo strategies – a case where lowering commission rates may not necessarily incentivise new adoption.

The positivity of 2024 continues when it comes to a firm’s AUM and the average number of algo providers they use. Firm sizes across the board have recorded an uptick in the number of providers they use, with the exception of two. Firstly, firms who manage assets of between

Figure 3: Average number of providers used by AUM (USD billions)

AUM (billions USD)	2024	2023	2022
Up to 0.25	▲ 2.82	2.55	3.00
0.25-0.5	▲ 2.50	2.43	2.22
0.5 to 1	▲ 2.91	2.90	1.83
1 to 10	▼ 3.04	3.88	3.32
10 to 50	▲ 5.14	4.19	4.53
More than 50	▼ 4.77	4.99	4.43
Not Answered	▲ 3.90	3.28	3.51

Figure 4: Number of providers used (% of responses)

\$1 and \$10bn have recorded a slight decrease – from 3.88 in 2023, down to 3.04 this year (2024). This is the largest decline seen in figure 3. This could be due to consolidation, leading to fewer distinct providers in the market, as well as increased in-house development, in which firms might be shifting towards developing their own proprietary algorithmic trading strategies in-house.

Large, long-only managers, with AUMs of more than \$50bn have also seen a slight decline. Back in 2023, these firms reported using an average of 4.99 providers, but this year it has now dropped to 4.77, although this would still round up to firms using 5 providers on average. This means that firms with AUM of between \$10- \$50bn use the most providers, averaging out at 5.14. This is the highest number

of reported providers being used in the last three years. What will be interesting to watch over the next year is whether these firms continue to add more providers or if this number plateaus throughout the rest of 2024. Given the positive attitude our respondents seem to be showing, it may be safe to assume we will be beginning to see these numbers rise across the board, although perhaps more so for the firms with smaller AUMs.

Of course, if you remove the filter of AUM, the data shows a very different picture (figure 4). Around 40% of buy-side traders reported using five or more providers. Although interestingly, the second highest holding is 29% of traders reportedly only using one provider. It seems there is quite the split between our respondents who show provider

loyalty with a commitment to only one, and those who believe that diversification is the way forward. With the rising numbers of long-only managers who are looking to have exposure to five or more providers, having increased marginally since 2023, perhaps we will see those with single provider loyalty drop? Although this number has remained largely unchanged over the past three years.

When it comes to the distribution of algo usage by value traded, as you can see in figure 5, there has been a decline in the number of respondents who report to using algorithms for over half of their trading by value. Those who traded between 40% and 80% of their portfolio value have reported a slight decrease. Most notably those who traded between 60% - 70%, which has fallen by almost 10%.

This is in line with the volume of trades made by algos. While the majority of buy-side traders report using algos to make 50%- 60% and 70%-80% of their trades, the largest result is that of over 80%. Not only do traders use algos to carry out the majority of their value traded, but they also use algos to carry out over 80% of the actual number of trades.

This jump is significant. Last year, only 15% of long-only managers reported that their value trades were carried out by algos. This year, this has jumped almost 10%. This could be linked to technological advancements making algorithmic trading more accessible and efficient, allowing traders to execute complex strategies with greater speed and accuracy, thus driving adoption.

While we have explored the value of trades made by algorithm, and the volume of

trades, now the question is, which algorithms are actually favoured by our respondents? Taking the top spot, we have VWAP with 79% of respondents reporting that they use this algorithm. This is followed by dark liquidity seeking (77%) and % volume (participation) (68%). While VWAP and dark liquidity seeking have both seen an increase in demand over the last 12 months, % volume has seen a slight fall in demand.

Shifting client demand has driven innovation in algo trading. More traditional strategies, such as VWAP for example, have begun to incorporate machine learning and predictive techniques to remain relevant. More commonly, clients are expecting more advanced methods of liquidity seeking, in particular in harder-to-trade stocks during liquidity events, such as the close and monthly expiries. During periods of high volatility, some quant funds as well as funds which typically use long duration or schedule-based strategies such as VWAP or TWAP, will see a shift in urgency to go into more arrival like benchmarks such as liquidity seeking algos.

When it comes to dark liquidity, it is also worth noting, as previously mentioned, that many of our respondents were reporting that they were happy with their current providers exposure to dark pools, so while there may have been a decline in the rating of the algo's performance (figure 1), buy-side traders are still more than happy to use them (figure 6).

Across the board we have seen upward trends in which types of algorithms are used, with two

Figure 5. Algorithm usage by value traded (% of responses)

percent of respondents	2024	2023	2022
unanswered	▲ 4.91	2.98	4.11
0-5%	▲ 6.72	6.29	6.96
5-10%	▲ 5.94	5.30	6.65
10-20%	▲ 8.79	7.62	6.65
20-30%	▼ 9.04	9.27	8.23
30-40%	▲ 8.53	7.28	5.70
40-50%	▼ 8.79	11.26	4.75
50-60%	▼ 9.82	11.26	10.13
60-70%	▼ 5.43	15.23	19.94
70-80%	▼ 8.01	8.94	9.18
80% and over	▲ 24.03	14.57	17.72

Figure 6. Types of algorithms used (% of responses)

algo type	2024	2023	2022
% Volume (Participation)	▼ 68.48	72.19	73.42
Dark Liquidity Seeking	▲ 77.26	75.17	75.63
Implementation Shortfall (Basket)	▲ 25.06	23.51	23.42
Implementation Shortfall (Single Stock)	▲ 54.01	52.98	49.68
TWAP	▲ 36.69	36.42	38.29
VWAP	▲ 79.07	78.81	80.70
Target Close/Auction Algos	▲ 58.14	52.65	53.80
Other	▼ 4.65	4.97	4.43

exceptions. As we have already mentioned there is a slight dip in demand for % volume (participation) although it is still third billing. Secondly, "other" has seen a very slight drop in demand, although pairs trading and dynamic percentage volume were the most common answers. Overall, however, it would seem that respondents are looking to choose more traditional algorithms this year.

Looking forward, we asked our respondents if they are looking to make use of any additional algorithmic trading providers within the next 12 months. While only 16% of long-only

managers are looking to make use of additional providers, those that do are quite varied in who they are looking to move to include. Jefferies are a firm favourite with several mentions, as are Cowen, Berenberg and Liquidnet.

The TRADE received a record number of responses to this year's Algorithmic Trading Survey. The top 15 algo providers, in terms of response numbers received from long-only managers, have been profiled in this report, while a number of other providers received a high enough level of responses to have their scores recorded.

Barclays

Barclays' overall score this year is "good" at 5.59, although it is down 0.06 from last year. Across the board it has been a tough year for Barclays with the majority of traders reporting their performance to have worsened since 2023.

The largest decline is when it comes to algo monitoring, falling 0.24, with one trader commenting that they are looking for "something new" and that "too often a mix of algos is needed where not one ticks all the boxes". However, it is worth noting that traders still score this category as "good". Customisation features also saw a drop in score, by 0.12 making this the lowest scoring category this year, again with respondents reporting that they are looking for more flexibility when it comes to customisation and collaboration.

However, despite these drops in scores, there are some areas which Barclays has seen some progress, most notably when it comes to price improvement. This category has increased by 10 basis points, scoring 5.40 this year. One execution

trader commented that even with the low cost, they feel they receive high value for their money from Barclays.

Execution consistency has also seen an increase in positivity, however, it is just beaten to the top score by customer support, which scored 5.89. This score will come as little surprise with long-only managers heaping on the praise for Barclays' team.

Despite this positivity from buy-side respondents, Barclays did not manage to beat the average score, meaning they failed to score as an overall outperformer or as a category outperformer.

This year, Barclays received 67 responses, significantly higher than last year, with the majority of responses coming from Europe (48%) and the UK (27%). When it comes to the AUM of respondents, 31% reported to holding over \$50bn. Finally, 38% of respondents reported that they are looking to make use of additional algorithmic trading providers in the coming 12 months.

BARCLAYS RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.75 ▼	5.55 ▼	5.77 ▲	5.71 ▼	5.74 ▼	5.62 ▼	5.40 ▲	5.30 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.75 ▼	5.33 ▼	5.89 ▼	5.53 ▲	5.63 ▼	5.47 ▼	5.41 ▼	5.59 ▼

KEY STATS

Overall Outperformer: NO

Category Outperformer: NO

5.89
Highest score
(Customer support)



5.30
Lowest score
(Customisation features)

0.10
Most improved
(Price improvement)



-0.24
Least improved
(Algo monitoring)

Berenberg

It has been a great year for Berenberg, with continued investment into BEAT (Berenberg Algorithmic Trading) and leveraging of the TIA (Trading Intelligence Analytics platform). This work over the last 12 months has clearly paid off, with one head of trading, based in Europe, specifically highlighting the TIA, praising Berenberg on its building of the platform.

Last year, Berenberg partnered with BMLL, leveraging Level 3 data to layer market event datasets with client trade data by linking unique order IDs via matching engine timestamps – allowing Berenberg’s TIA to deliver a robust A|B testing environment across five years of market and trade data to efficiently optimise algorithmic performance.

Berenberg’s overall score has improved since last year, sitting at 6.15 or “very good” and the category scores from buy-side traders across the board are equally as strong. This year, it is once again an overall outperformer, and a category outperformer in all 15 categories.

Taking the top spot is customer support – with a solid score of 6.52. Long-only managers are quick to heap on the praise for the Berenberg customer support team. However, Berenberg as a whole

receives plenty of praise too, with one trader commenting that the provider is “hands down [the] most supportive and proactive algo desk I work with”.

It is worth noting here that, in fact, when it comes to algo monitoring, Berenberg scores the top score of all providers covered, with 6.21.

In yet more positive news, Berenberg has seen some significant yearly shifts, with both customisation features and anonymity jumping 0.28 pushing its scores from “good” to “very good”.

Whilst across the board, Berenberg’s scores are firmly in the “good” to “very good” range, there has been a very slight decline from 2023 in two of the categories. Reduced market impact has moved from 6.05 down to 6.03 while breadth of dark pools has shifted from 6.21 down to 6.16. However, given that both of these scores remain in the “very good” category this should be of little concern to the firm.

Overall, Berenberg received 76 responses, up from the 72 they received last year. The majority of respondents are based in the UK (41%) and Europe (37%) with a few more from the US, with just under a third of respondents reporting an AUM of over \$50bn.


BERENBERG RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
6.24 ▲	6.03 ▼	6.20 ▲	5.96 ▲	6.17 ▲	6.14 ▲	6.07 ▲	6.12 ▲

Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
6.18 ▲	6.04 ▲	6.52 ▲	6.13 ▲	6.16 ▼	6.07 ▲	6.21 ▲	6.15 ▲


KEY STATS Overall Outperformer: 🏆 Category Outperformer: ★ X15

6.52
Highest score
(Customer support)



5.96
Lowest score
(Cost)

0.28
Most improved
(Customisation features)



-0.5
Least improved
(Breadth dark pools)

BNP Paribas

Previously marketed as BNP Paribas Exane, this year, following the merge, the institution is listed under the banner of BNP Paribas, with all clients now having been migrated over to the BNP Paribas system, and the Exane algo suite being integrated into the BNP Paribas stack.

Under BNP Paribas' 2025 growth strategy, the bank is aiming to accelerate technological innovation and cross-business collaboration in order to enhance customer experience and provide best-in-class capabilities to its clients.

Unlike last year, BNP Paribas has reported very little in its provider questionnaire, other than highlighting its recent name change. However, there is still plenty of high points when it comes to this provider.

Across the board BNP Paribas has outperformed in all 15 categories, and has beaten the average, being marked as an overall outperformer once again. However, unlike last year, it would seem that traders are not so enamoured with BNP Paribas as they once were. Thirteen of the 15 categories covered by this survey have each seen a slight decline in their score. One trader suggests that this may be due to the recent merger, with a desk

head commenting that the “service (especially post-trade) deteriorated heavily since the BNP acquisition of Exane”.

However, although the score for customer support has fallen 0.28 since last year, it still remains firmly “very good” with a score of 6.28. Additionally while one respondent reported being unimpressed with BNP Paribas, other traders seem perfectly content with the service they are receiving, commenting on their attentive nature.

It is worth noting that while last year, every category scored within the “very good” range, this year, two categories have fallen down into “good” (although only just). Both price improvement and routing logic analysis have seen a downward turn this year, although both remain firmly above the overall average score.

This year, BNP Paribas received 101 responses, with the majority coming from Europe (82%), with just 8% from the UK, 7% from the USA and the remainder from ROW. Over a third of respondents (35%) report to having an AUM of more than \$50bn, and only 9% report that they are looking to make use of additional algorithmic trading providers over the next 12 months.

BNP PARIBAS RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
6.28 ▼	6.15 ▼	6.22 ▼	6.07 ▲	6.24 ▼	6.38 ▼	5.94 ▼	6.16 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of 50R	Algo monitoring	Average score
6.28 ▼	5.91 ▼	6.28 ▼	6.16 ▼	6.06 ▼	6.22 ▼	6.20 ▲	6.17 ▼

KEY STATS

Overall Outperformer: 🏆

Category Outperformer: ★ X15

6.38
Highest score
(Anonymity)



5.91
Lowest score
(Routing logic analysis)

0.06
Most improved
(Algo monitoring)



-0.42
Least improved
(Routing logic analysis)

BofA Securities

BofA Securities has seen an uptick in the number of responses it has received this year, with an impressive 79 traders sharing their views on the provider. While it has failed to beat the overall average, or be a category outperformer, BofA Securities has done well when it comes to improving their customer support (up 0.16), anonymity (up 0.12), customisation features (up 0.04) and flexibility and sophistication SOR (up 0.01). In fact, it is worth noting that for each category BofA has received a score of “good”.

However, there are areas where BofA does need to focus on, especially when it comes to speed. This year, traders gave BofA a score of 5.48 - the lowest score for this category. In fact, for 10 of the 15 categories the survey covers BofA scored in the

bottom three places, as well as having the lowest overall average score.



Unfortunately for BofA, it scores in the bottom three for quite a few of the categories covered by the survey. With execution consistency, speed, price improvement, ease of use, and breadth of dark pool all scoring the lowest score compared to our top 21 providers.

The majority of BofA Securities responses come from Europe (378) and the US (21%), as well as a few responses coming in from the UK (17%) with 37% of clients reporting an AUM of over \$50bn.

Interestingly, 15% of BoA's clients have reported to be considering using additional algorithmic providers in the coming 12 months, with Berenberg being a top contender for consideration.

BOFA SECURITIES RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.71 ▼	5.58 ▼	5.64 ▼	5.69 ▼	5.48 ▼	5.69 ▲	5.37 ▼	5.45 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.58 ▼	5.40 ▼	5.76 ▲	5.45 ▼	5.51 ▼	5.53 ▲	5.43 ▼	5.55 ▼

KEY STATS		Overall Outperformer: NO	Category Outperformer: NO
<p>5.76 Highest score (Customer support)</p>		<p>5.37 Lowest score (Price improvement)</p>	<p>0.16 Most improved (Customer support)</p> 
			<p>-0.39 Least improved (Breadth dark pools)</p>



This year, Citi has had a strong performance, beating the overall average and becoming an overall outperformer, as well as beating the average score in 10 of the 15 categories. In yet more good news, Citi has seen an increase in its scores across all fifteen categories.

In fact, outside of this survey Citi have also reported a very good year, with a particularly strong third quarter. The TRADE reported that Citi’s “institutional clients group division, which covers markets, services and banking, saw net income rise 12% year-on-year”.

Taking the top spot this year is customer support, receiving a score of 6.23 from long-only managers, firmly in the “very good” category - improving significantly from last year’s 5.66 (good). In fact, traders are commenting on how “support has seen [a] dramatic improvement” over the last 12 months, and that Citi’s “spectacular services and assistance” are something worth taking note of.

However, this isn’t even in the top three of

score improvements. Execution consistency has seen an increase in 0.68, with a score of 5.98.

Traders are also becoming more impressed with Citi’s algo monitoring, with an increase of 0.67, giving this category a score of 5.86. While both categories remain in the “good” category, these improvements are still noteworthy.

However, when it comes to speed (5.77) and reduced market impact (5.76), despite having seen an uptick in their score, these categories are still the lowest scoring, as well as coming in below the overall average.

Citi received 96 responses this year, with the majority of them coming in from Europe (43%) and the UK (32%). An impressive 50% of their respondents reported holding an AUM of \$50bn or more. Only 12.5% of buy-side traders reported considering using additional algorithmic providers over the next year, although there was little consensus on who might be a top contender for this.

CITI RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.89 ▲	5.76 ▲	5.98 ▲	5.87 ▲	5.77 ▲	5.89 ▲	5.83 ▲	5.80 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
6.10 ▲	5.78 ▲	6.23 ▲	5.93 ▲	5.78 ▲	5.94 ▲	5.86 ▲	5.89 ▲

KEY STATS

Overall Outperformer: 🏆

Category Outperformer: ★ X10

6.23
Highest score
(Customer support)



5.76
Lowest score
(Reduced market impact)

0.68
Most improved
(Execution consistency)



0.20
Least improved
(Speed)

Goldman Sachs

Goldman Sachs has seen some improvement since last year, however the firm failed to beat the overall average. Taking the top spot is ease of use, with a score of 6.00. One development this year from Goldman was that it boasted to being one of the first providers to launch smart algos to trade non-deliverable forwards (NDFs), and to being the first bank to offer a portfolio-style basket algo. Although it is worth noting that this boast is supported by one trader commenting on Goldman Sachs’ “excellent CRB algorithms”.

Customer support has seen the greatest increase in the score from last year – up 0.25. The majority of comments from long-only managers reflect this, highlighting the very good service level, particularly in Europe. Arun Abraham-Singh is the only person who was name checked.

Whilst there are several areas in which they excel, it is also worth noting that when it comes to price

improvement and customisation features, Goldman Sachs is rated in the bottom three for each of these categories. Interestingly though, the firm’s price improvement score has seen a slight increase in comparison with last year, so perhaps there is a positive spin to put on this. While traders may feel this is a category where Goldman Sachs is lacking, it is clear that some improvements may have already begun to be made.


This year Goldman Sachs received 107 reviews from traders, the majority in Europe (45%) and the UK (36%) with 46% of respondents reportedly holding an AUM of over \$50bn. Last year, 22% of long-only managers reported that they would be looking to make use of additional algorithmic providers over the next twelve months, however this year this number has fallen slightly, with approximately 17% considering using additional providers.

GOLDMAN SACHS RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.74 ▼	5.74 ▲	5.84 ▲	5.87 ▲	5.87 ▲	5.74 ▲	5.47 ▲	5.22 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
6.00 ▲	5.57 ▲	5.79 ▲	5.53 ▼	5.75 ▲	5.65 ▲	5.53 ▲	5.69 ▲


KEY STATS Overall Outperformer: NO Category Outperformer: ★ X3

6.00
Highest score
(Ease of use)



5.22
Lowest score
(Customisation features)

0.25
Most improved
(Customer Support)



-0.22
Least improved
(Customisation features)

Instinet

Working with approximately 1000 clients, Instinet supports the use of the majority of core algorithms, covering equities, ETFs and listed derivatives. However, it has been a rough 12 months for Instinet, having seen a decline in its scores for twelve of the fifteen categories covered.

This year, it received an overall score of 5.73, and only beat the category average in two categories, anonymity and routing logic analysis.

Anonymity is Instinet's strongest score, with a score of 6.03, it is the only category to move into the "very good" range.

This may be where the positivity ends. Despite Instinet's launch of their Micro Adaptive Sequencer (MAS) which Instinet boast is designed to be "efficient, nimble and responsive to these client specific requests" our respondents have seen a significant decline in customisation features, falling 0.59. However, it is worth noting that last year this score improved by 0.56, so perhaps it is last year's

score that was the anomaly and this year the scores are simply settling to their original place... Next year will tell.

Customer support has seen a decline in score too, with last year being ranked as "very good" and this year falling to 5.91. Very few comments were left by our respondents, but one that stands out is that there has been "more changes than healthy in the service team" suggesting that once these changes settle down, the score may stabilise next year.

This shift in score may also be due to an increase in respondents. The majority of response are from the UK (48%) as well as from Europe (24%) and the US (21%), with over a third reportedly holding AUMs of over \$50bn (36.5%).

It is worth noting that around one in five traders are looking to make use of additional algorithmic trading providers in the next 12 months – down slightly from last year.

INSTINET RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.71 ▼	5.69 ▲	5.85 ▼	5.75 ▲	5.74 ▼	6.03 ▼	5.67 ▼	5.38 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of 50R	Algo monitoring	Average score
5.83 ▼	5.64 ▲	5.91 ▼	5.63 ▼	5.87 ▼	5.70 ▼	5.60 ▼	5.73 ▼

KEY STATS

Overall Outperformer: NO

Category Outperformer: ★ X2

6.03
Highest score
(Anonymity)



5.38
Lowest score
(Customisation features)

0.02
Most improved
(Routing logic analysis)



-0.59
Least improved
(Customisation features)

JP Morgan

There was plenty of responses to this year’s survey when it comes to JP Morgan, with 115 traders taking part, a significant increase from the 87 of last year. The majority of responses came from Europe (50%) and the UK (27%) with 49% holding an AUM of \$50bn or more.

Looking at recent developments, last year, JP Morgan expanded its rates algo franchise to support the wider electrification of rates trading. The expansion made JP Morgan’s rates algo offering equal to its long-standing FX offering.

For the second year in a row, JP Morgan saw a fall in their average overall score, coming in at 5.62. Across the board there has been steady declines in the scores, with each category only falling into “good”, with not a single score managing to be awarded as a category outperformer.

Taking the top spot, however, is ease of use, with a score of 5.91, this is up marginally from last year.




Although respondents’ comments are sparse this year, one response that stands out says the “pre/post-execution is the best” perhaps encouraging this boost in the score. Similarly, it may have influenced the slight uptick in the increase trader productivity category, which moved up three basis points since last year.

What is interesting is that when it comes to algo monitoring, JP Morgan scored in the bottom three places, across our surveyed providers. This is particularly noteworthy as one trader commented that it is “an excellent algo, top 5 for me”. So, while it may not be up to everyone’s standards, there are still long-only managers who are happy with the algo’s provided by JP Morgan.

Only 13% of buy-side traders reported to looking to make use of additional algorithmic trading providers in the next 12 months, down significantly from the 23% last year.

JP MORGAN RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.86 ▲	5.66 ▼	5.67 ▼	5.69 ▼	5.69 ▼	5.65 ▼	5.50 ▼	5.35 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.91 ▲	5.41 ▼	5.76 ▼	5.45 ▼	5.79 ▼	5.51 ▼	5.35 ▼	5.62 ▼

KEY STATS		Overall Outperformer: NO	Category Outperformer: NO
5.91 Highest score (Ease of use)		5.35 Lowest score (Algo monitoring)	0.03 Most improved (Increase trader productivity) 
			-0.44 Least improved (Algo monitoring) 

Jefferies

Jefferies are clearly doing something right, with an overall average score of 5.95, outperforming in thirteen of the fifteen categories, it has clearly had a good year with one trader dubbing them the “best algo provider [of] 2023”.

In fact, across the board, when traders are considering using other algorithmic trading providers, Jefferies is one of the top mentioned providers listed.

Customer support takes the top spot, with traders mentioning several members of the Jefferies team by name as some of the best in business. However, it is its breadth of dark pools which has seen the largest shift from last year. Increasing by 0.30 to 6.16, this category has been pushed into the “very good” sector. Buy-side respondents are quick to pile on the praise with their comments too, highlighting the firm’s “their seek with min POV accesses dark and lits. Like Blitz smart DMA”.

When it comes to reducing market impact, Jefferies has scored an impressive 6.12, the second highest score among all 21 of our providers

discussed in this report.

Meanwhile, when it comes to price improvement, there has been a significant decline in the category score, falling 30 decimal points to 5.62. While it is not the lowest score this category has seen, it is the lowest Jefferies received. However, it is worth noting that only price improvement and cost fall below the overall average, although there is a clear pattern where traders feel that Jefferies should perhaps focus on improving.

Two thirds of Jefferies clients are based in the UK (32%) and Europe (32%) and just over a quarter based in the US (26%), with 46% reporting to have an AUM of \$50bn or more. What is interesting is that, while Jefferies is perhaps one of the most mentioned providers traders are looking to include in the coming 12 months, 26% of Jefferies’ clients are also considering using additional algorithmic trading providers in the next year, with Cowen, Liquidnet, BNP and UBS all getting a mention, to name but a few.

JEFFERIES RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
6.18 ▼	6.12 ▲	6.04 ▼	5.78 ▲	5.91 ▼	5.98 ▼	5.62 ▼	5.81 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of 50R	Algo monitoring	Average score
6.21 ▲	5.64 ▼	6.27 ▲	5.79 ▲	6.16 ▲	5.93 ▲	5.86 ▲	5.95 ▲

KEY STATS

Overall Outperformer: 🏆

Category Outperformer: ★ X13

6.27
Highest score
(Customer support)



5.62
Lowest score
(Price improvement)

0.30
Most improved
(Breadth dark pools)



-0.31
Least improved
(Price improvement)

Kepler Cheuvreux

With approximately 600 buy-side clients who actively use its algorithms, Kepler Cheuvreux has scored just below the overall average (Kepler score 5.80, the overall average was 5.81). Supporting the majority of the core algorithms when it comes to crypto, equities and ETFs, Kepler trades mainly in APAC, Europe and North America – represented by the buy-side respondents, who are largely from Europe (69%) and the UK (27%), with traders with \$50bn or more making up over a quarter (27%) of respondents.

Unsurprisingly, customer support takes the top spot for the second year in a row, with traders considering Kepler as having “the best customer support and service of all our brokers”. The Kepler team were praised for their attentiveness and knowledge. This is the only category that scored “very good”, although anonymity came in a very close second with a score of 5.99, moving up 11

decimal points since 2023.

The most significant upward trend this year is for algo monitoring, moving up 0.18 with Kepler putting this down to its continued development of its flagship liquidity-seeking algos, Pulse and HuntNow. As well as its API analytical suite which powers the KCx algorithmic suite.

The biggest downward shift this year is in execution consistency, dropping 0.19 to 5.75, however, it is routing logic analysis which has taken the bottom spot, with a score of 5.50.

There are also two categories, increase trader productivity and speed, which are completely in line with the average score, both having fallen slightly, -0.03 and -0.05 respectively.


Roughly 17% of clients are considering using additional algorithmic trading providers over the next 12 months, with Liquidnet getting several mentions.

KEPLER CHEUVREUX RATINGS FOR ALGORITHMIC PERFORMANCE


Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.94 ▼	5.82 ▼	5.75 ▼	5.75 ▼	5.86 ▼	5.99 ▲	5.69 ▼	5.83 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.93 ▼	5.50 ▼	6.09 ▼	5.62 ▼	5.73 ▼	5.70 ▼	5.72 ▲	5.80 ▼

KEY STATS Overall Outperformer: NO Category Outperformer: ★ X5


6.09
Highest score
(Customer support)




5.50
Lowest score
(Routing logic analysis)



0.18
Most improved
(Algo monitoring)



-0.19
Least improved
(Execution consistency)



Liquidnet

Liquidnet claims to be one of the world's largest pure agency brokers in its provider questionnaire. With over 1000 clients globally, it supports the majority of core algorithms, with the exception of dynamic close.

Overall, Liquidnet has scored just below the average, with an overall score of 5.70. However, there are several areas where it outperforms, in particular breadth of dark pools (6.02) and reduced market impact (5.96). Contributing to this score is Liquidnet's claim to have "narrowly missed the arrival mid-point by -1.9bps and beat the estimated market impact by 19.7bps in 2023". However, it is worth noting that traders may not be so impressed by this, as they were last year given that this category fell 0.14 since 2023.

It is worth noting that when it comes to largest shift since last year, both execution consulting and pre-trade cost as well as flexibility and sophistication of smart order routing have seen an upward movement of 0.25. However, execution consulting and pre-trade cost just takes the top

spot, with an overall number of 0.2517 vs flexibility and sophistication of smart order routing having an overall total of 0.2501.

This increase in score for flexibility and sophistication of smart order routing may be due to Liquidnet's awareness of asset managers shift to multi-asset class trading. In light of this, they are looking to create liquidity across asset classes, and not just source liquidity and trade at the best price.

However, there are significant areas in which Liquidnet needs to improve. When it comes to cost, speed, customisation features, ease of use and algo monitoring, it has landed in the bottom three for each of these categories.

The majority of respondents are based in the UK (39%), Europe (34%) and the US (21%), with 28% of respondents holding AUMs of \$50bn or more.

It is also worth noting that only 15% of traders are looking to make use of additional trading providers over the next 12 months, with Jefferies looking like the most popular choice.

LIQUIDNET RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.85 ▲	5.96 ▼	5.79 ▲	5.46 ▲	5.69 ▼	5.85 ▼	5.77 ▲	5.31 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.79 ▲	5.54 ▲	5.82 ▼	5.51 ▲	6.02 ▼	5.71 ▲	5.41 ▼	5.70 ▲

KEY STATS

Overall Outperformer: NO

Category Outperformer: ★ X3

6.02
Highest score
(Breadth dark pools)



5.31
Lowest score
(Customisation features)

0.25
Most improved
(Ex consulting and pre-trade cost)



-0.14
Least improved
(Breadth dark pools)

Morgan Stanley

Morgan Stanley’s overall average score comes in at 5.58, under the overall average. This year it has received 137 responses, quite the increase from last year’s 83, with the majority of clients based in Europe (43%) and the UK (31%), while 32% of traders report an AUM of \$50bn or more. Roughly 14% of respondents reported to be considering using additional algorithmic trading providers in the coming 12 months, with Jefferies, Cowen and Liquidnet each getting a couple of mentions.

Across the board, each category has failed to beat the average. When it comes to ease of use, this category has improved by 0.05, sitting at the top end of “good”. However, this is the only category which has seen any improvement.

Increase in trader productivity takes the top spot, with a score of 5.85, down 10 decimal points from last year, followed by ease of use and then


speed at 5.7, which has fallen 0.27. However, this is not the biggest drop in a score for Morgan Stanley this year.

Flexibility and sophistication of smart order routing has fallen a surprising 0.39, landing on a score of 5.39, however, this is not the lowest score they received. Customisation features, with a score of 5.33, sits at the bottom of the chart, having fallen 0.18 over the last 12 months.

When it comes to a comparison with the other providers in this report, Morgan Stanley has landed in the bottom three several times, scoring the lowest score across all 21 providers for customer support, execution consulting and pre-trade cost and flexibility and sophistication of smart order routing. It is also worth noting that they are in the bottom three for the average overall score, however just managed to avoid being at the bottom of this chart.

MORGAN STANLEY RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.85 ▼	5.62 ▼	5.65 ▼	5.67 ▼	5.79 ▼	5.62 ▼	5.55 ▼	5.33 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.82 ▲	5.40 ▼	5.52 ▼	5.41 ▼	5.65 ▼	5.39 ▼	5.49 ▼	5.58 ▼

KEY STATS		Overall Outperformer: NO	Category Outperformer: NO
5.85 Highest score (Increase trader productivity)		5.33 Lowest score (Customisation features)	0.05 Most improved (Ease of use)
			-0.39 Least improved (Flex and soph SOR)

RBC Capital Markets

RBC covers all the core algorithms, as well as AI-powered VWP and Arrival Price Algo, covering equities, ETFs, foreign exchange and listed derivatives. Up from 2023, this year RBC received 67 responses, with the majority in the UK (45%), Europe (30%) and the US (18%), with 31% reporting to have an AUM of \$50bn or more.

Although RBC did not beat the overall average, it did in six of the thirteen categories. Customer support (6.14) and anonymity (5.98) take the top spots, having moved up 0.25 and 0.18 points respectively since last year. They have also seen the largest annual shift. Ease of use takes third place, just below the average sitting at 5.92, up 10 decimal places since last year. This is reflected in client's comments, with the helpfulness of the team and the care and execution with which trades are carried out.

At the other end is customisation features (5.38) are down 0.22. However, it is flexibility and

sophistication of smart order routing that has seen the greatest downturn this year, dropping 0.32 since 2023 and sitting firmly below the average. The firm, in fact, scored in the bottom three for this category when compared to the other providers in this report.

Interestingly when it comes to speed, RBC's clients rated them 5.91 for two years in a row, just under the "very good" category, yet it is something which has been mentioned a handful of times in the client comments, particularly when linked to the firm's speed and aggression. It would seem that RBC's clients are happy with plenty of what it is doing.

Of course, this doesn't mean they aren't looking to other places, with 31% of respondents reporting that they will be considering using additional algorithmic trading providers in the coming 12 months, in particular Cowen and Jefferies getting several mentions each as a consideration.

RBC CAPITAL MARKETS RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.94 ▼	5.78 ▼	5.91 ▼	5.71 ▼	5.91	5.98 ▲	5.72 ▼	5.38 ▼
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.92 ▲	5.68 ▼	6.14 ▲	5.65 ▲	5.86 ▼	5.42 ▼	5.66 ▼	5.78 ▼

KEY STATS

Overall Outperformer: NO

Category Outperformer: ★ X6

6.14
Highest score
(Customer support)



5.38
Lowest score
(Customisation features)

0.25
Most improved
(Customer support)



-0.32
Least improved
(Flex and soph SOR)

UBS

This year, UBS has come in just under the average, with an overall score of 5.72. Covering all the core algorithms with a focus on equities, ETFs, fixed income, foreign exchange and listed derivatives. UBS received 89 responses this year, with over half of respondents from Europe (51%) and 45% of clients reporting to holding AUM of \$50bn or more.

Ease of use takes the top spot, with a score of 5.91, followed by increase trader productivity (5.90). In third place is cost, which beats the average score with 5.84, increasing by nine decimal places from 2023.

The other two categories which beat the average are reduced market impact (5.82) and customisation features (5.69). Interestingly, one

respondent commented that UBS could introduce more custom-built strategies, so while there has been clear progress made, respondents are looking for more.

When it comes to customer support, the score is middle of the road, however this category has seen the biggest increase over the last 12 months. Increasing by 0.37, customer services sit at 5.78, the top end of “good”.

To the other extreme, routing logic analysis has seen a decline since last year, dropping 0.14 to 5.41, also making this the lowest scoring category.


Around 12% of traders are considering using additional algorithms providers in the next 12 months, although there is no clear winner about who they will be looking to use.

UBS RATINGS FOR ALGORITHMIC PERFORMANCE


Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
5.90 ▲	5.82 ▲	5.83 ▲	5.84 ▲	5.82 ▼	5.75 ▲	5.64 ▲	5.69 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
5.91 ▲	5.41 ▼	5.78 ▲	5.45 ▼	5.83 ▲	5.64 ▼	5.52 ▲	5.72 ▲

KEY STATS Overall Outperformer: NO Category Outperformer: ★ X3


5.91
Highest score
(Ease of use)



5.41
Lowest score
(Routing logic analysis)



0.37
Most improved
(Customer Support)



-0.14
Least improved
(Routing logic analysis)

Virtu Financial

With over 500 buy-side clients, Virtu Financial supports all the core algorithms, covering equities and ETFs. It has been a good year for Virtu, having recently launched their new “algo of algos” framework, which is based upon the understanding of real-time market conditions, both at order arrival and during order life. They were also ranked fifth in Bloomberg’s 2023 European Institutional Equity Trading study, so it will come as little surprise that the firm has performed well in this year’s survey.

Beating the overall average by ten decimal places, Virtu is an outperformer in nine of the fifteen categories in this survey.

Virtu moved to expand its block trading algorithmic capabilities with the launch of Alert+, a workflow solution available in POSIT Alert, enhancing its features with the provision of automated routing to Virtu’s Covert execution algorithm to seek non-displayed liquidity.

Taking the top spot is breadth of dark pools at 6.35, the second highest score among all 21 providers in this report. However, what is interesting to note is that this is actually a slight fall since last year’s score (down 0.02)! In second place, is increased trader productivity (6.15) although down slightly since last year, and in third is

ease of use (6.08) up by 0.15. It is important to note that eight of the categories are sitting at “very good”.

Sitting at the other end is customisation features, with a score of 5.45. Although in some good news, this has seen an improvement since last year, increasing by 0.17.

When it comes to annual shifts, the most significant is for execution consulting and pre-trade cost, which has seen an increase in 0.32, although this is still under the category average. Cost has seen a nice increase, up 0.27 pushing it to the top end of the “good” category, as has routing logic (up 0.25).

The most significant downward trend is for price improvement, dropping from 5.95 last year to 5.69 this year. Although, in some good news, one trader commented that when it comes to a single / first fill, Virtu has good price improvement, adding that it is just on the parent order where there has been slippage.

Virtu received 86 responses this year, with the majority coming in from the UK (35%) and Europe (31%), with 35% of respondents reporting to holding an AUM of \$50bn or more. Just under a quarter (24%) of respondents are reporting to be considering making use of additional algorithmic providers over the next twelve months, with Berenberg getting a significant number of mentions from long-only managers.

VIRTU FINANCIAL RATINGS FOR ALGORITHMIC PERFORMANCE

Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
6.15 ▼	5.78 ▼	6.02 ▼	5.95 ▲	6.05 ▼	6.04 ▲	5.69 ▼	5.45 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of 50R	Algo monitoring	Average score
6.08 ▲	5.87 ▲	6.03 ▲	5.69 ▲	6.35 ▼	6.01 ▲	5.66 ▲	5.92 ▲

KEY STATS

Overall Outperformer: 🏆

Category Outperformer: ★ X9

6.35
Highest score
(Breadth dark pools)



5.45
Lowest score
(Customisation features)

0.32
Most improved
(Ex consulting and pre-trade cost)



-0.26
Least improved
(Price improvement)

Other providers

When it comes to the providers on this page, while they may not have received enough responses for an individual write up, there is still plenty to say. Taking the top spot is Redburn Atlantic, which is both an overall outperformer as well as a 15X category outperformer. They are followed in second place by Liberum T-Rex, who is also both an overall outperformer as well as a 15X category outperformer. It is worth noting that when it comes to execution consulting and pre-trade cost they scored in the top three highest scores across all 21 providers. Thirdly is Stifel Europe. While they are an overall outperformer, they did not quite beat the average in every category. However, when it comes to ease of use and breadth of dark pools, they are in the top three! BMO comes in fourth place, also

beating the overall average.

Only two providers on this page failed to beat the average, with Bernstein and Cowen coming in just below the average at 5.80 and 5.79 respectively. (Note that the average is 5.81, so it was only just!)

Liberum T-Rex, having noticed the growth in outsourced dealers and the increasing competition among boutique houses, is striving to offer something a little different. It will come as little surprise then that when it comes to cost, they have the highest score on the page (6.04). They also have the top score of our six providers listed here when it comes to reduced market impact, anonymity, execution consulting and pre-trade cost, and flexibility and sophistication of SOR.

Stifel have also scored considerably well across the board, taking the top spot in six of the fifteen

BERNSTEIN RATINGS FOR ALGORITHMIC PERFORMANCE								
Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation	
5.82 ▼	5.71 ▼	5.73 ▼	5.72 ▼	5.68 ▼	6.06 ▲	5.78 ▲	5.67 ▲	
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score	
5.96 ▼	5.63 ▲	6.02 ▲	5.65 ▲	6.02 ▲	5.82 ▲	5.78 ▼	5.80 ▼	

BMO CAPITAL MARKETS RATINGS FOR ALGORITHMIC PERFORMANCE								
Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation	
5.84 ▼	5.93 ▼	5.71 ▼	5.88 ▲	5.91 ▲	6.04 ▼	5.89 ▼	5.99 ▼	
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score	
6.01 ▲	5.57 ▼	6.26 ▼	5.71 ▼	5.80 ▼	5.94 ▼	5.93 ▼	5.89 ▼	

TD COWEN RATINGS FOR ALGORITHMIC PERFORMANCE								
Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation	
5.71 ▼	5.77 ▼	5.77 ▼	5.69 ▲	5.79 ▼	6.02 ▲	5.65 ▼	5.49 ▼	
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score	
5.93 ▲	5.84 ▲	6.01 ▼	5.71 ▲	5.81 ▼	5.77 ▼	5.83 ▼	5.79 ▼	

categories. However, when it comes to anonymity, they are bottom of the chart. Note, however, that they beat the overall category average by 0.07, so they still had a solid score. Unfortunately, not much insight can be gained from buy-side traders, as no comments were left.

When it comes to BMO, there were plenty of changes being made globally over the last 12 months. Supporting the usual core algorithms, as well as ARC, a BMO proprietary algo strategy, BMO covers equities and ETFs mainly in EMEA and North America. For three of the fifteen categories list (Above/ Below / to the L / R) BMO took the bottom slot, however given the recent changes, BMO may be one to watch in the coming year, with one trader commenting that they believe that BMO is the best “all-rounder in class”.

Methodology

Buy-side survey respondents were asked to give a rating for each algorithm provider on a numerical scale from 1.0 (very weak) through to 7.0 (excellent), covering 15 functional criteria. In general, 5.0 (good) is the 'default' score of respondents. In total, a record number of 2,222 ratings were received across 35 algo providers, yielding thousands of data points for analysis. Only the evaluations from clients who indicated that they were engaged in managing long-only strategies have been used to compile the provider profiles and overall market review information. Each evaluation was weighted according to three characteristics of each respondent: the value of assets under management; the proportion of business done using algorithms; and the number of different providers being used. In this way the evaluations of the largest and broadest users of algorithms were weighted at up to three times the weight of the smallest and least experienced respondent. Finally, it should be noted that some responses provided by affiliated entities were ignored. A few other responses where the respondent could not be properly verified were also excluded. We hope that readers find this approach both informative and useful as they assess different capabilities in the future.

LIBERUM T-REX* RATINGS FOR ALGORITHMIC PERFORMANCE							
Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
6.27	6.10	6.17	6.04	6.11	6.32	6.15	5.92
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
6.00	5.86	6.29	6.26	6.21	6.16	5.96	6.12

REDBURN ATLANTIC RATINGS FOR ALGORITHMIC PERFORMANCE							
Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
6.11 ▲	6.03 ▲	6.25 ▲	5.97 ▲	6.16 ▲	6.14 ▲	6.12 ▲	6.05 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
6.26 ▲	5.94 ▲	6.59 ▲	6.09 ▲	6.25 ▲	6.07 ▲	6.06 ▲	6.14 ▲

STIFEL EUROPE RATINGS FOR ALGORITHMIC PERFORMANCE							
Increased trader productivity	Reduced market impact	Execution consistency	Cost	Speed	Anonymity	Price improvement	Customisation
6.32 ▲	6.01 ▼	6.25 ▼	5.78 ▼	6.09	5.99 ▼	6.28 ▲	5.81 ▲
Ease of use	Order routing logic/analysis	Customer support	Execution consulting	Dark pool access	Flexibility and sophistication of SOR	Algo monitoring	Average score
6.26 ▲	5.95 ▼	6.37 ▲	6.25 ▲	6.38 ▲	5.94 ▼	5.94 ▼	6.11 ▲

*2023 scores not comparable due to limited sample size