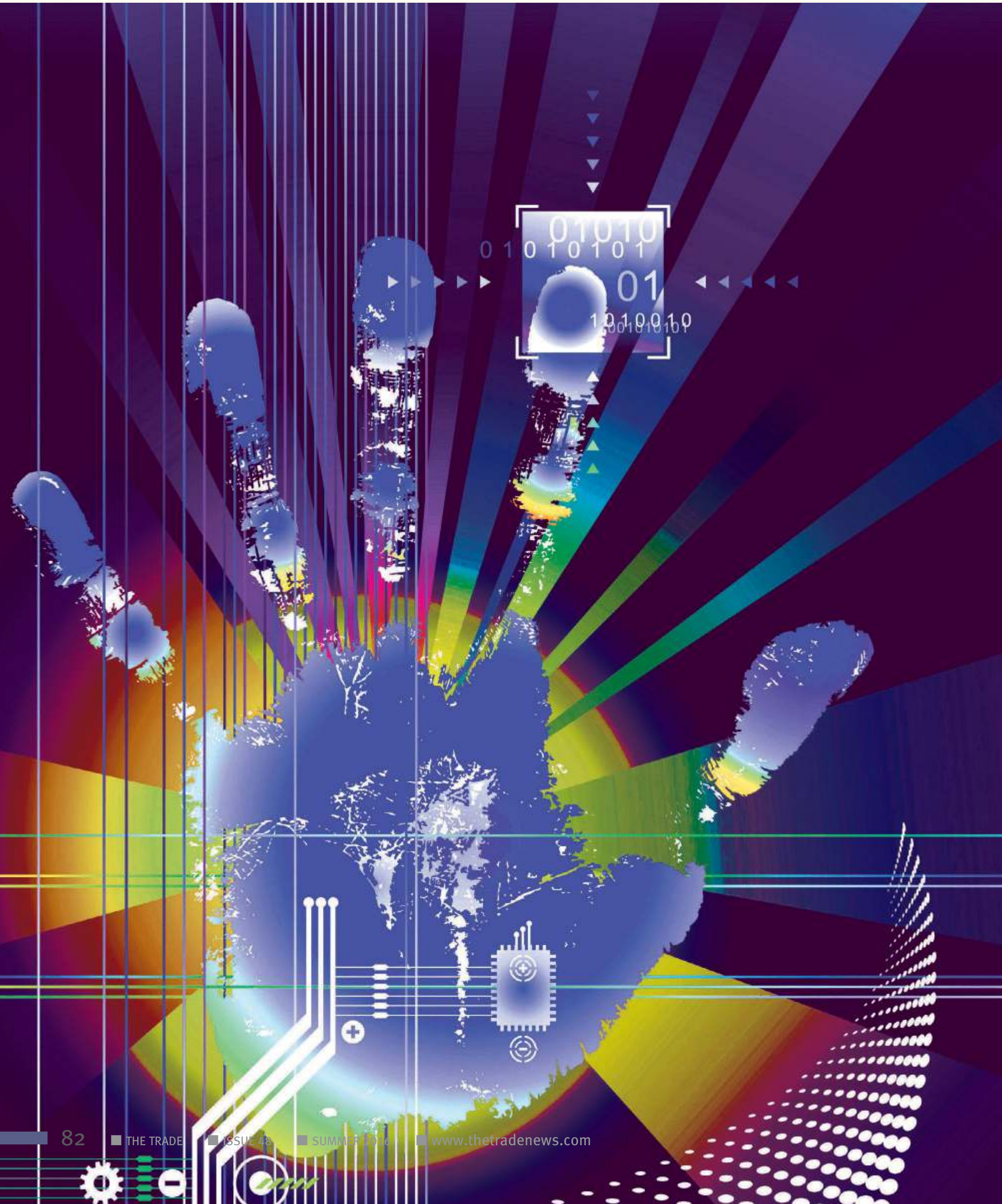
THE TRADE
WORKING FOR THE BUY-SIDE

The 2016 Algorithmic Trading Survey
hedge funds

Recognising excellence in the delivery of algorithmic trading solutions

Featuring
- State of the market report
- The 2016 provider profiles

Market review: hedge funds



Where next?

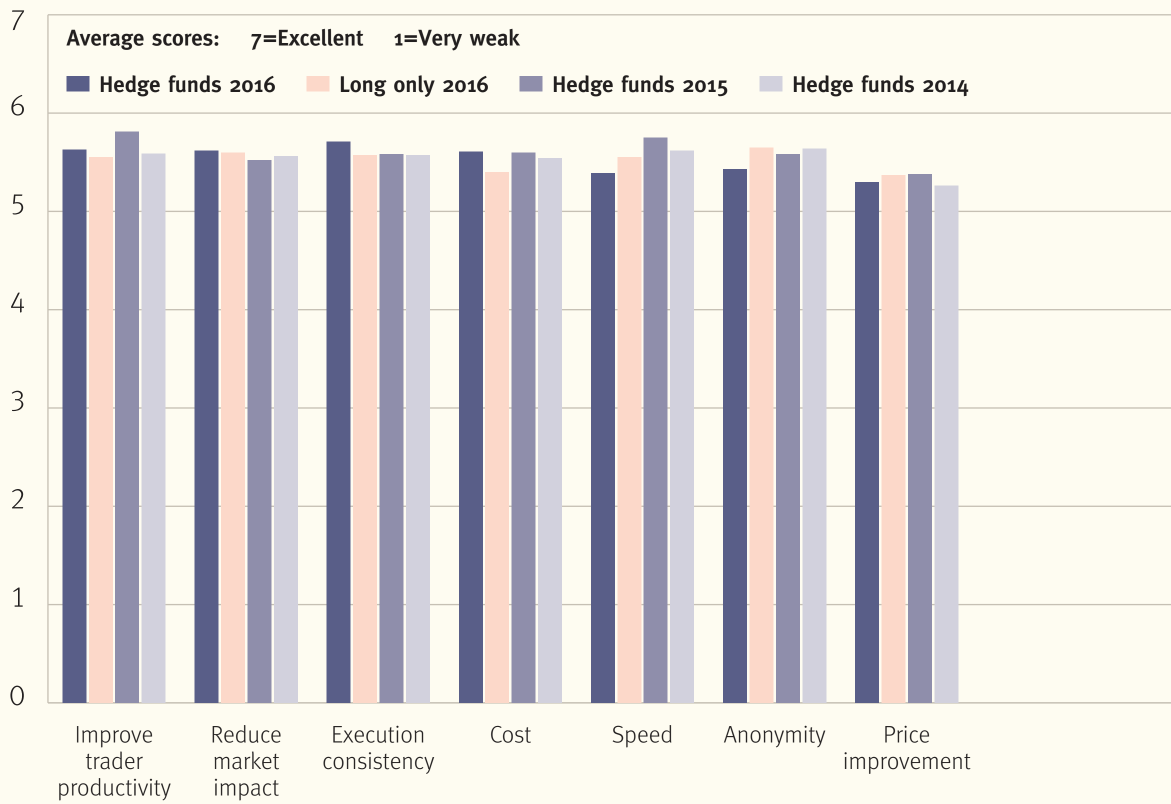
As hedge fund survey scores decline, providers ponder what to do to galvanise enthusiasm for a mature product

2016 is the third year in which the Algorithmic Trading Survey results have been separated with different results reported on for hedge funds and long only firms. One of the most interesting conclusions from the current results is the contrast in momentum in scoring of one group against the other. As we noted in

Illustration: iStock

Market review: hedge funds

FIGURE 1: RATING OF ALGORITHM PERFORMANCE



Source of all charts: The TRADE Annual Algorithmic Trading Survey

our last issue, scores for long only firms were generally on an upward trend, with twelve of fourteen categories posting higher scores and the highest scores ever being recorded for Customer Support. The position with hedge fund respondents could not be more stark. As is shown in Figure 1, ten of fourteen questions saw lower scores in 2016 compared with a year ago. The average across all questions was 5.58, down 0.12 points compared with a year ago and back at the levels seen in 2014. It would appear that the gains seen in 2015 could not be maintained and the comparison with long only scores, though still positive was much less noticeable than in 2015.

The role of dark pools

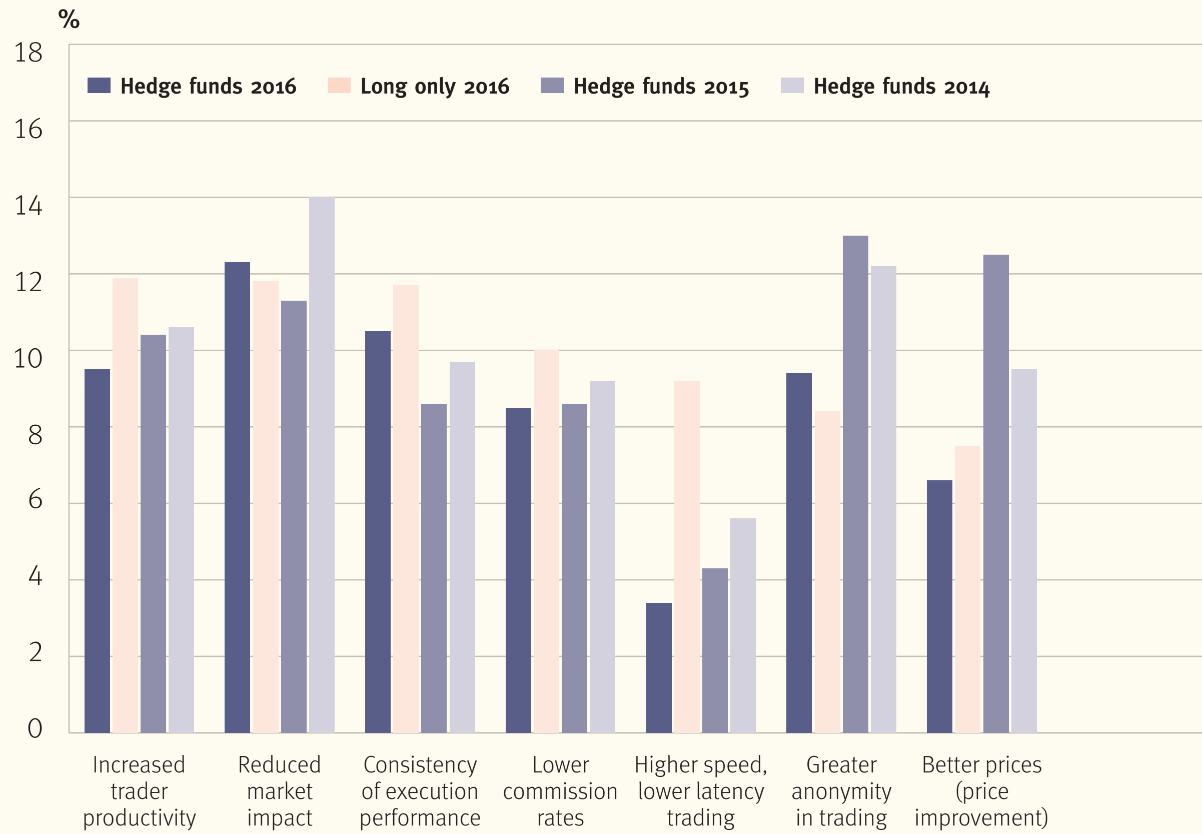
Particularly large declines were seen in areas as diverse as Speed and Latency

(down 0.36 points), Customisation (down 0.29 points) and Internal Crossing (down 0.28 points). Problems with management and regulation of internal dark pools almost certainly contributed to the last of these and may have impacted on the

Hedge funds were among those seen as gaining most from the rapid expansion in dark pool activity, so it is not surprising that they should be among the most impacted by the problems with regulation and performance.

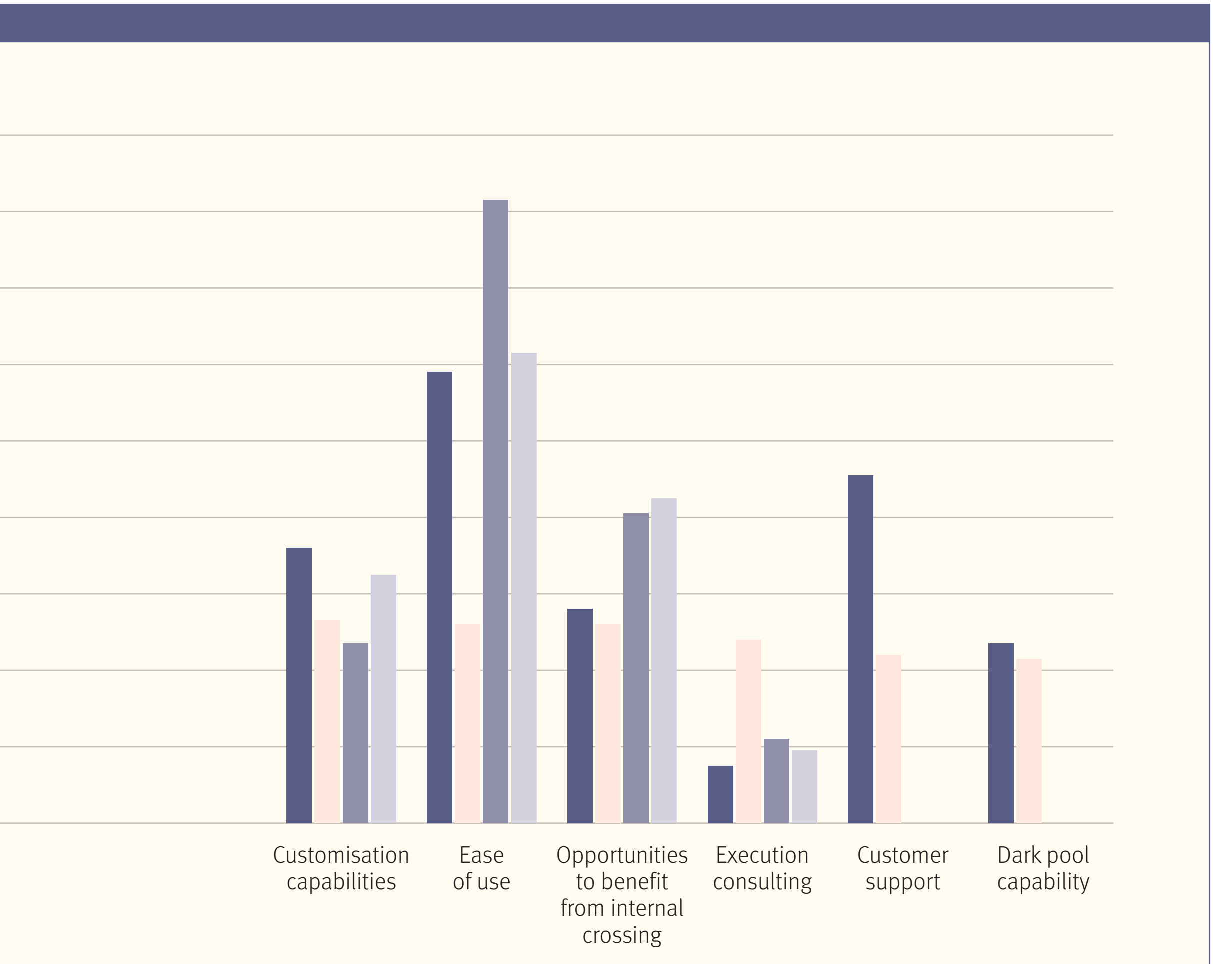
Market review: hedge funds

FIGURE 2: REASONS FOR USING ALGORITHMS



It is clear that there is some real unease at the lack of investment in developing new capabilities that meet individual client requirements.

first as well. It is not yet clear the extent to which issues with dark pools have had a long term detrimental impact on participation and usage. Obviously there has been a short term set back which was reflected in the fact that hedge fund scores for Dark Pool Access were fully 0.49 points lower than a year earlier and constituted the second lowest score overall. Hedge funds were among those seen as gaining most from the rapid expansion in dark pool activity, so it is not surprising that they should be among the most impacted by the problems with regulation and performance.

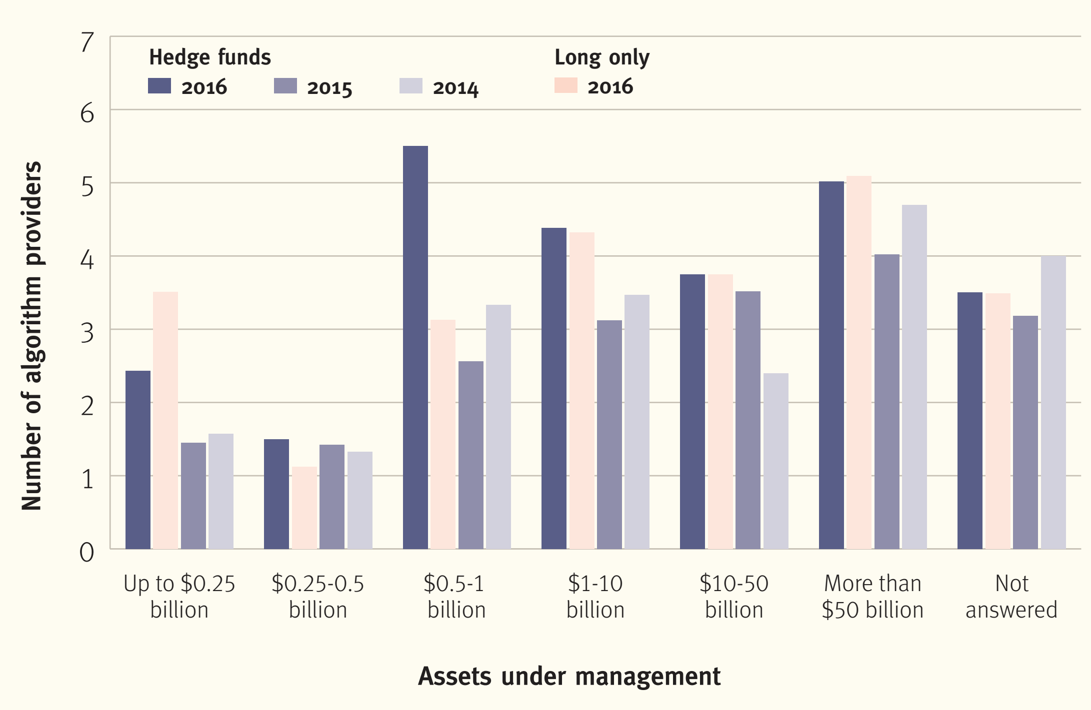


The impact was sufficiently large as to suggest that it may have clouded responses to the other related questions as well to some extent.

Another notable change in score was seen in Customisation. The average score was a very modest 5.19 and saw this aspect rank last among the areas in the survey. Based on individual responses it is clear that there is some real unease at the lack of investment in developing new capabilities that meet individual client requirements. The best scores were seen once again in Ease of Use of algorithms. Although scores were lower here, they remained strong overall and while 5.89 did not match the exceptional level of 6.08 recorded in 2015, it nonetheless reflects a very clear sense that clients find services generally very good. Since services become easier to use the less they change, it may be that clients are trading off one benefit for another in this case.

Market review: hedge funds

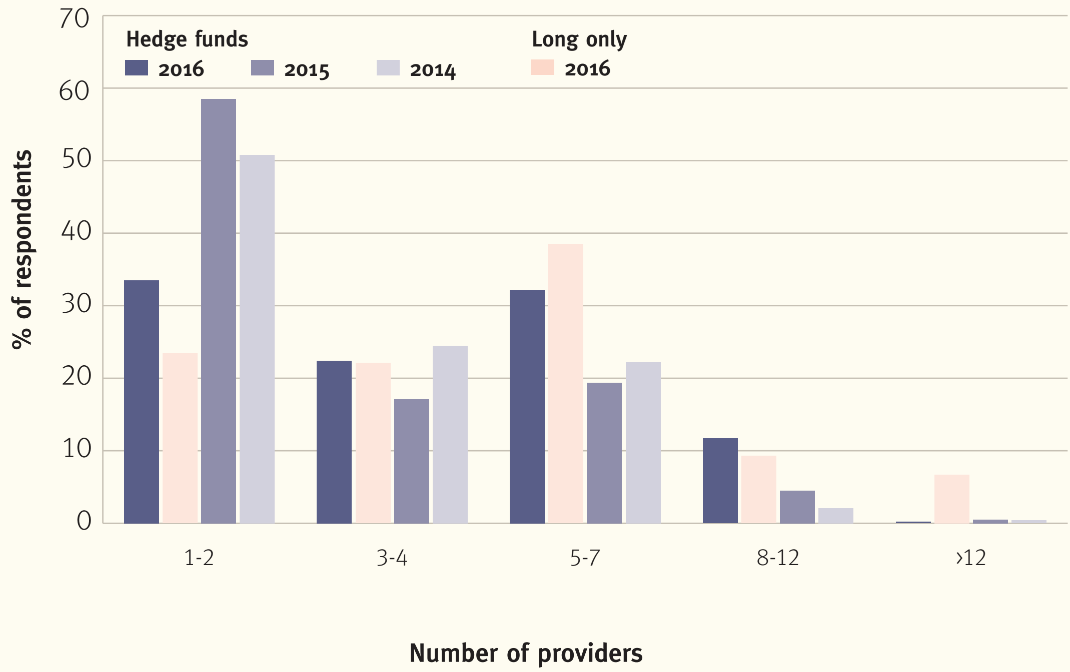
FIGURE 3: AVERAGE NUMBER OF PROVIDERS USED BY AUM



Matching priorities

In terms of priorities Figure 2 shows how these have evolved and also how they compare between the different groups of clients. The comparison between lower scores and lower priorities is quite clear. The three least important aspects of service based on responses from hedge funds are Execution Consulting, Speed and Latency and Dark Pool Access. In terms of scores these areas ranked respectively 12th, 10th and 13th overall. At the other end of the spectrum, the three most critical aspects of service when hedge funds are evaluating providers are Reduced Market Impact, Ease-of-Use and Consistency of Execution Performance. These in turn ranked respectively, 5th, 2nd and 3rd. So it is clear that there is a close correlation between the performance as seen by clients and those elements most important to them. The more important question in

FIGURE 4: NUMBER OF PROVIDERS USED

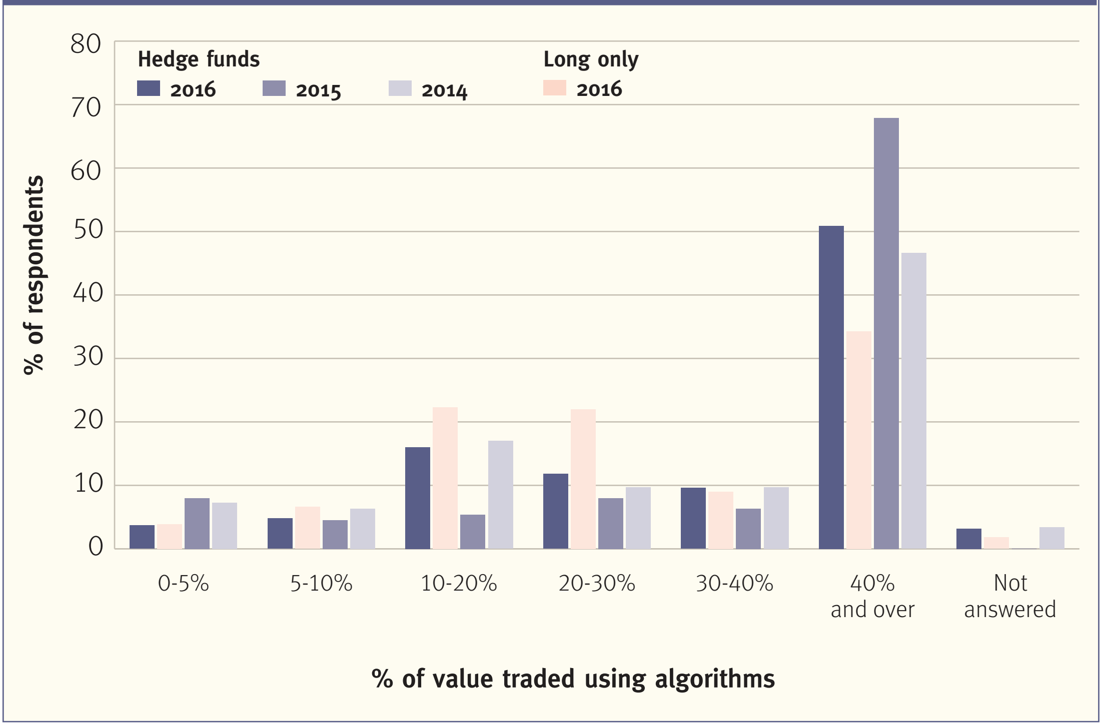


If providers are focussing on delivering good performance in areas clients' consider key, then they are obviously both effective in being close to customers and focused on delivery of priority items.

terms of service providers is the direction of causation, if any between the factors. If providers are focussing on delivering good performance in areas clients' consider key, then they are obviously both effective in being close to customers and focused on delivery of priority items. This is not only the most favourable interpretation from a provider perspective but is also most likely. This does however create a problem from a provider perspective. If everyone knows which aspects to make a priority and these are generally applicable across all clients, it becomes increasingly difficult to generate any kind of competitive edge in a maturing industry. Market share changes occur as a result of client success, a

Market review: hedge funds

FIGURE 5: ALGORITHM USAGE BY VALUE TRADED



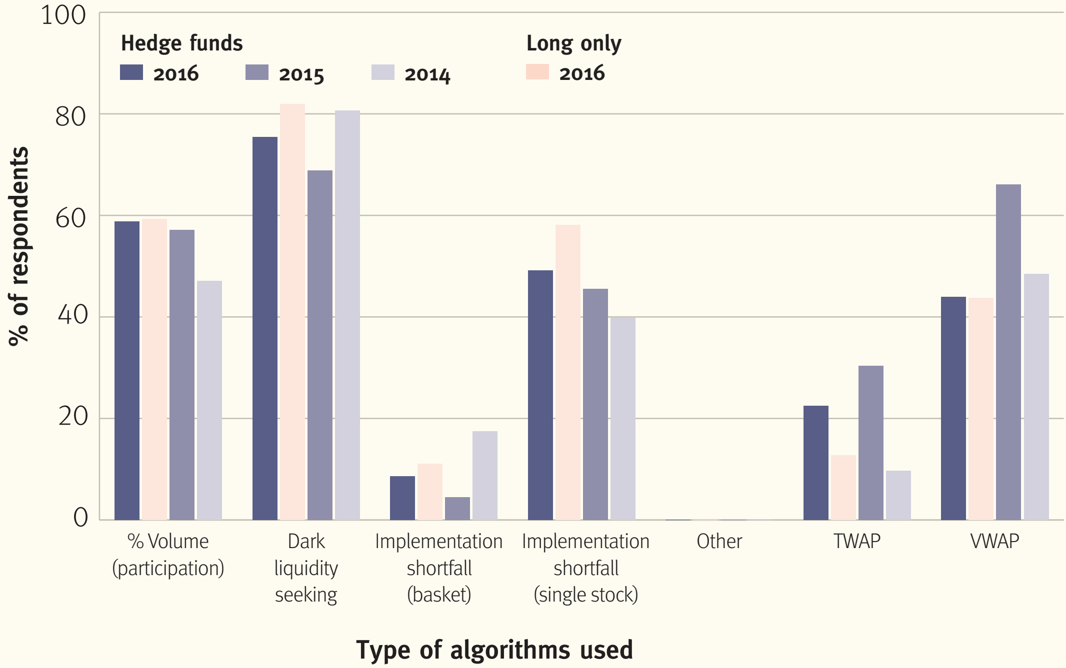
factor that algorithmic trading providers can do very little to influence.

The contrast between long only and hedge fund clients is not as marked as might be expected when it comes to priorities. Perhaps the biggest difference, which is not a surprise, is the greater level of attention paid by long only clients to Anonymity. This is their most important single consideration, whereas for hedge funds it ranks a more modest 5th overall. In contrast Ease-of-Use is less important for long only clients, probably a reflection of the greater levels of integration into core systems.

Who's who?

Respondents' usage of algorithms, as well as usage of different providers varies based on a number of factors, not least assets under management (AuM) and types of strategy. Figures 3, 4 and 5 together consider a breakdown between different aspects. Figure 3 shows

FIGURE 6 : TYPES OF ALGORITHMS USED



the average number of providers used by fund managers with different levels of AuM. The general trend of prior years is still in place; large fund groups tend to use more algorithmic service providers. Whether this reflects a broader base of assets being traded or a general desire to monitor competitive offers is not clear. Also in terms of the responses in 2016, some of the mid-sized groups with \$0.5-1 billion AuM saw a sharp increase in the number of providers, almost doubling compared to 2015. To some extent this will reflect changes to the make-up of respondents, but is also appears to be a genuine trend to broader usage among smaller clients. Given the amount of business that these funds have to offer, providers may or may not take comfort from this apparent fragmentation of business.

Figure 4 presents a similar picture in a slightly different way. Here the data shows how many service providers are being used by respondents. What is noticeable this year is the sharp decline from 2015 in terms of the proportion of respondents using only one or two providers (down from 58.5% a year ago to only 33.5% in 2016). This is still higher than the proportion of long only managers operating with such a limited range, but much closer. In contrast the number of managers using between three and seven providers

Market review: hedge funds

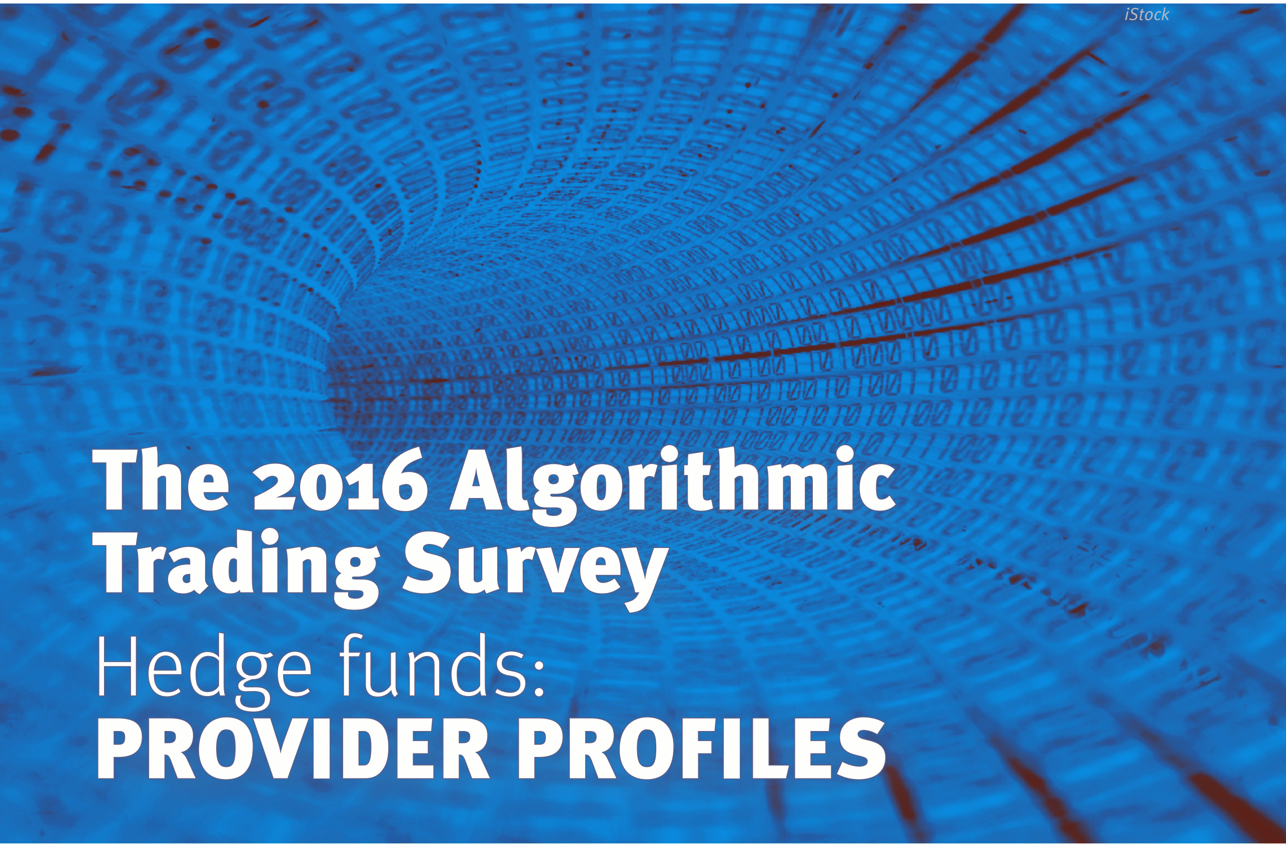
has increased. The sharp gain in the number using more than eight providers is not yet statistically well enough established for us to draw conclusions. However the data clearly reinforces the view that hedge funds are increasing their roster of providers, rather than concentrating further on a handful of market leaders. The profiles that follow also illustrate this trend.

Finally Figure 5 shows the proportion of trades by value being executed through use of algorithms in 2016 and previous years. Last year there was a marked difference between usage by long only firms and usage by hedge funds. The latter showed more than two-thirds of respondents using algorithms for more than 40% of trading. That has declined somewhat this year. The reasons are not necessarily clear though the dark pool effect could be a factor. What it does mean is that hedge funds are now dividing less business among more providers. In an era of still reducing commission rates that trend would be bad news for providers generally, and perhaps worse for some of the traditional leaders among the prime broker community.

What's what?

Finally the survey looked at exactly what algorithms are most widely used. What is perhaps most interesting about the results is the fact that fully three-quarters of hedge fund respondents use dark liquidity seeking algorithms despite the issues alluded to earlier. This proportion has actually increased since 2015, as indeed it did for long only clients. There has been a sharp decline in the use of TWAP and VWAP related algorithms. This has been long predicted by providers, but now appears to be coming to pass. However use of participation algorithms has continued at historic levels with around three in five respondents making use of this kind of capability.

Overall then clients are not as happy as they were a year ago, but in the core areas of service they appear well satisfied by providers as a whole. However with all providers concentrating on doing the same things well, and users fragmenting rather than consolidating activity, profitability of the business and commensurate investment in it may not be easy to achieve. ■



iStock

The 2016 Algorithmic Trading Survey

Hedge funds: PROVIDER PROFILES

MEASURING FUNCTIONAL CAPABILITIES

Survey respondents were asked to give a rating for each algorithm provider on a numerical scale from 1.0 (very weak) to 7.0 (excellent), covering 14 functional criteria. In general 5.0 is the 'default' score of respondents. In total more than 20 providers received responses and the leading banks obtained dozens of evaluations, yielding thousands of data points for analysis. Only the evaluations from clients who indicated that they were engaged in managing hedge funds 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.

Unlike previous years, in 2016 there is no Roll of Honour or write-ups by different service areas. The researchers consider that with the industry is now mature, so such assessments are harder to support as many providers have very similar scores, especially when account is taken of their different respondent demographics. This year therefore we are offering a short profile of the leading providers. This outlines their share of responses, including a comparison with 2015 and the overall survey outcomes. It also shows the areas where they scored best in absolute terms and incorporates a short commentary concerning performance and client profiles. As always any results presented are weighted to ensure that the greatest impact results from the scores received from the most sophisticated users in the areas they regard as most important. Finally it should be noted that responses provided by affiliated entities are ignored and a few other responses where the respondent was not able to be properly verified were also excluded. We hope that readers find this new approach informative and useful as they assess different capabilities in the future. ■

Bank of America Merrill Lynch

Bank of America Merrill Lynch (BAML) achieved the highest number of responses from hedge fund clients for the second year in succession. This was the case both by number and weight of overall responses received and compares with a ranking of 3rd in terms of number of responses in the survey as a whole and 2nd based on weight of all responses. Among the hedge fund respondents nearly one-third came from very large clients. Almost as many came from the smallest category as well providing BAML with a very broad mix of responses. Around 40% came from clients who use less than three providers, a marginally higher proportion than in the hedge fund responses as a whole. BAML was also well represented in terms of hedge funds who use algorithms for more than 40% of trading by value.

In terms of scores BAML performed strongly. Its overall average was 5.61, slightly ahead of the overall total. However among the largest eight providers profiled its scores were equal 2nd, behind only ITG who had a significantly smaller market share. BAML scores particularly well in some of the areas that clients cited as being of most importance. However there were two areas which should be considered as meriting further work in the future. Customisation, although ahead of the survey average was a rather modest 5.30. The only area that BAML scored lower was in Dark Pool Access, which was again below the survey average.

Almost exactly half of BAML respondents use Bloomberg EMSX as their EMS provider, though respondents mentioned eight different systems overall with Portware being the second most popular option. Less than 20% of BAML clients plan to use additional providers in the upcoming 12 months. This is slightly higher than the 15% overall figure. Almost three-quarters of BAML respondents expect to increase algo usage in the coming year compared to 57% across all hedge fund respondents. BAML client 'wish-lists' are not materially different from others including some very specific requests such as emerging market capabilities and some more general desires such as more custom algos.

BANK OF AMERICA MERRILL LYNCH — DATA

% by number of responses *Hedge Funds* *2015*	% by weight of responses *Hedge Funds* *2015*	% by number of responses *Hedge Funds* *2016*	% by weight of responses *Hedge Funds* *2016*	% by number of responses *Total* *2016*	% by weight of responses *Total* *2016*
11.06	11.84	14.52	14.26	8.46	8.39

Best Performing Areas (Hedge Fund Scores)
Customer Support
Ease-of-Use
Cost

Provider profiles: hedge funds

Bloomberg

Response levels from hedge funds for Bloomberg were lower than in 2015. As a result Bloomberg merits a short form profile rather than the full profile that it would have been entitled to based on last year's response rate. The position compares unfavourably with a generally flat level in terms of response rates across the survey and an overall increase in numbers when long only firms and others are taken into account. Performance would not appear to be a reason affecting response rates. Generally Bloomberg achieved good scores, though these were not quite at the level achieved in 2015. There was a decline of 0.22 points in terms of overall score, but that decline was only a little larger than that recorded in the survey overall referred to in the Market Review.

Smaller firms and those using less than three providers dominated respondents. The average level of algo usage, at a little over 20% overall was below average. Not surprisingly, EMSX was the execution management system of choice for Bloomberg algo clients. Overall we see no reason why numbers should not increase next year. Bloomberg business appears solidly based. ■

BLOOMBERG — DATA

% by number of responses *Hedge Funds* **2015**	% by weight of responses *Hedge Funds* **2015**	% by number of responses *Hedge Funds* **2016**	% by weight of responses *Hedge Funds* **2016**	% by number of responses *Total* **2016**	% by weight of responses *Total* **2016**
10.05	9.18	4.30	3.90	2.93	2.72

Best Performing Areas (Hedge Fund Scores)
- Customer Support
- Trader Productivity
- Cost

Citi

Citi received a lower proportion of responses from hedge funds than in 2015 and a lower proportion than it obtained across all responses (long only and hedge funds) in 2016. It fell from 10th to 11th in the overall rankings based on responses. Citi respondents were larger than average in terms of AuM and more than 90% use algorithms for more than 40% of their trading. They also typically use at least five different providers. Citi respondents are thus large and sophisticated.

Scores were overall respectable but not outstanding. One area where performance really shone was in Customer Support, seeing an average score of better than 6.0 (Very Good) from its clients. The lowest score was recorded for Dark Pool capabilities but Citi's score was broadly comparable with its major rivals. Citi had users operating with a wide range of EMS systems and fewer of its clients (<50%) expect to increase algo usage in the year ahead. Given the extent of current trading levels that is not surprising. Overall the profile of Citi's respondents was somewhat atypical but they appear to be satisfied with services being provided. ■

CITI — DATA

% by number of responses *Hedge Funds* **2015**	% by weight of responses *Hedge Funds* **2015**	% by number of responses *Hedge Funds* **2016**	% by weight of responses *Hedge Funds* **2016**	% by number of responses *Total* **2016**	% by weight of responses *Total* **2016**
4.02	4.09	3.23	3.36	4.72	4.68

Best Performing Areas (Hedge Fund Scores)
- Customer Support
- Reduced Market Impact
- Execution Consistency

Credit Suisse

In 2015 Credit Suisse received the second largest number of responses from hedge funds and the second largest total based on weight of respondents. Scores last year were adequate and did not suggest any reason for a decline in 2016. However, the proportion of responses this year was significantly lower. It is also very much lower compared to the market share recorded by Credit Suisse within the survey including long only as well as hedge fund respondents. While those numbers were also lower than in 2015 the decline was much less marked within the long only firms.

Scores this year were somewhat disappointing. In six categories Credit Suisse failed to beat the default acceptable score of 5.0 (Good). Scores were not based on one or two disappointed clients but reflected a general lack of enthusiasm on the part of clients. Credit Suisse struggled to beat the overall average score in many areas and even its performance in Customer Service (where it received its highest score), while competitive, was not especially distinguished. Scores for Trader Productivity and Reduced Market Impact were well down compared with direct competitors. To some extent trading relationships may be impacted by broader issues around prime broking capabilities or reputational issues more widely. Whatever the cause, it is clear that for this client group at least, Credit Suisse is no longer seen as the market leader it once was.

The majority of Credit Suisse clients were in the large or very large range in terms of AuM and also that for the most part they were rating the bank against at least four and in some cases many more, competitors. This makes them both the most discerning and informed of clients. In general, but not in all cases, Credit Suisse scores were below those recorded by more or less direct competitors. Among these clients, usage is expected to increase but few clients expect to add new providers. As such Credit Suisse may hope to continue to grow its business despite its relatively poor performance in the survey. ■

CREDIT SUISSE — DATA

% by number of responses *Hedge Funds* *2015*	% by weight of responses *Hedge Funds* *2015*	% by number of responses *Hedge Funds* *2016*	% by weight of responses *Hedge Funds* *2016*	% by number of responses *Total* *2016*	% by weight of responses *Total* *2016*
11.56	10.99	4.84	5.06	7.17	7.64

Best Performing Areas (Hedge Fund Scores)
Customer Support
Ease-of-Use
Cost

Goldman Sachs

All of the respondents for Goldman Sachs evaluated at least four providers and in some cases use up to ten different firms. In terms of size, 40% of Goldman respondents are in the very largest category, though 20% are very small measured by AuM. As such Goldman has a profile of respondents that is similar to the survey taking hedge funds as a whole, but towards the larger, more demanding and more sophisticated end of the spectrum. This is reflected in terms of some of the additional features mentioned by Goldman clients that included greater speed and built-in pre-trade cost analysis. More than three-quarters of respondents use algorithms for more than 40% of trading; more than double the level across all hedge fund respondents. Paying attention to these client requirements is important, which is reinforced by the fact almost half of responses from Goldman clients suggested they intend to increase algo usage in 2016.

Goldman received a much higher proportion of hedge fund responses than those obtained from long only clients. Although the percentage of total responses was down compared with 2015, the bank was still comfortably in the top five providers with this group, measured both in terms of number and weight of respondents. One noticeable feature of Goldman users is their relative lack of use of Bloomberg EMSX as their execution management system. The proportion of Goldman respondents was less than 20%, well down on the overall figure.

Goldman performance was very solid without having too many specific high points. In direct comparison with other providers it did well in some cases but performed less strongly in the perception of some other clients. Overall its average score was mid way among the eight largest providers. Areas of concern from a scoring perspective would appear to be Dark Pool capabilities and Execution Consistency. In the former case the average score of less than 5.0 (Good) was well behind all other aspects of Goldman capability as well as being below the overall average. However, elsewhere Goldman outperformed the average in more than 50% of the categories. ■

GOLDMAN SACHS — DATA

% by number of responses *Hedge Funds* *2015*	% by weight of responses *Hedge Funds* *2015*	% by number of responses *Hedge Funds* *2016*	% by weight of responses *Hedge Funds* *2016*	% by number of responses *Total* *2016*	% by weight of responses *Total* *2016*
9.05	8.33	7.53	7.63	3.42	3.49

Best Performing Areas (Hedge Fund Scores)
Customer Support
Ease-of-Use
Trader Productivity

Instinet

Instinet performed very strongly in the overall survey in terms of responses. However its position with hedge funds was not as strong and numbers of responses declined in 2016 compared with 2015. Its market share of responses was significantly lower than a year ago. Almost half of the responses for Instinet came from clients completing more than 40% of trading using algos. This was higher than the figure across all hedge funds but not materially so. Similarly Instinet attracted responses from a range of clients in terms of size measured by AuM. In a few cases Instinet was the only provider being used, and in these cases scores were, in-line with the survey results more broadly, generally better.

Overall scoring for Instinet was good. Among the top eight firms in terms of response share, Nomura was competitive and its overall average was better than the combined figure for all responses. However, scores were generally lacking in distinction. Instinet failed to achieve a score of better then 6.0 (Very Good) in any of the 14 categories. It was however, well ahead of the average in Dark Pool capabilities, which was its best scoring service feature in both absolute and relative terms. This appears to be one distinctive aspect of Instinet capabilities that is highly regarded and given problems noted in this area with other providers, may offer a relatively unique source of competitive differentiation.

Overall Instinet clients are not expecting to see a significant increase in trading activity in the year ahead. Less than half expected trading to increase and those that do are looking at only around 5-10% of additional activity. Clients are particularly interested in using algos for difficult to trade names and in emerging markets, both of which involve particular and difficult challenges for providers. One client also mentioned a desire for greater transparency in order placement. Among Instinet clients fully 80% use Bloomberg EMSX for some or all of their activity. This level of dominance by one EMS provider for a specific algo firm is unusual and interesting given Instinet's ownership of the Newport system. ■

INSTINET — DATA

% by number of responses *Hedge Funds* *2015*	% by weight of responses *Hedge Funds* *2015*	% by number of responses *Hedge Funds* *2016*	% by weight of responses *Hedge Funds* *2016*	% by number of responses *Total* *2016*	% by weight of responses *Total* *2016*
8.04	9.22	5.91	5.60	8.63	8.14

Best Performing Areas (Hedge Fund Scores)
Dark Pools
Customer Support
Smart Order Routing

Provider profiles: hedge funds

ITG

ITG has undertaken a progressive change of overall business strategy for the last few years. As a result some of its traditional strengths and business activities have been less prominent while others have been more heavily promoted. The effect on its algorithmic trading business is as yet unclear. Based on the results of the hedge fund component of the Algorithmic Trading survey it seems to be maintaining its presence in the marketplace. However hedge funds continue to be slightly less represented in its client base compared with long only firms and its response share of around 5% by both weight and number of responses is comparable, but slightly down on 2015. It is also clear that ITG Triton remains an important part of the overall business proposition. Almost half of respondents for ITG use that service for their EMS, and in a number of cases exclusively so. This is a much higher proportion than across the survey as a whole or within the hedge fund respondents. Commensurately usage of Bloomberg EMSX is lower among ITG algo trading clients.

Most of ITG respondents use three or more providers. The number of clients using algorithms to trade more than 40% of value is very similar to the hedge fund population overall, but a relatively high proportion of ITG clients are only using algos to a small extent. This clearly affects their attractiveness as clients from an algorithmic trading perspective but may illustrate a more broadly based relationship with the firm as a whole. A corresponding overweight of respondents expecting to increase algo usage in the year ahead is probably not surprising in the particular circumstances.

In general ITG scores were strong. It was ahead of the hedge fund average across 10 of the 14 categories and comfortably ahead of the overall average of 5.58 taking all elements into account. It was seen as performing very successfully in terms of Reduced Market Impact and Smart Order Routing capabilities. This was the case in both absolute and relative terms. Overall the firm appears to be strongly positioned to grow its business further. ■

ITG — DATA

% by number of responses *Hedge Funds 2015*	% by weight of responses *Hedge Funds 2015*	% by number of responses *Hedge Funds 2016*	% by weight of responses *Hedge Funds 2016*	% by number of responses *Total 2016*	% by weight of responses *Total 2016*
5.03	4.97	4.30	4.52	5.37	5.53

Best Performing Areas (Hedge Fund Scores)
Reduced Market Impact
Smart Order Routing
Ease-of-Use

JP Morgan

JP Morgan showed up more strongly in the hedge fund client group than in 2015, with a significant increase in share of responses both by number and by weight. It also had a higher share among hedge funds than it did among the long only respondents. Its mix of clients by size was a close parallel to the overall results with a good mix of the very large and some smaller clients based on AuM. What was distinctive however was the level of responses from clients making extensive use of algorithmic trading. Even among smaller clients algo usage was in excess of 40% of value in most cases. In addition almost all JP Morgan clients were using multiple service providers, in most cases more than five. As a result the scores are a good reflection of capabilities across a broad spectrum of experienced and sophisticated clients.

In 2015 JP Morgan achieved the highest overall average score among the major hedge fund service providers. It failed to quite match that performance in 2016, but scores were still among the top three overall as well as being ahead of the survey average. The bank clearly has a well satisfied customer base. In 10 of 14 individual categories JP Morgan outscored the survey average among hedge funds. However, in no area did JP Morgan beat 6.0 (Very Good) which it accomplished in some cases in 2015. A growing list of demanding customers makes achieving excellent scores somewhat harder but JP Morgan will doubtless be looking to repeat the distinctive 2015 position in some areas in the year ahead.

As with other providers around half of JP Morgan clients expect algo usage to increase, though in most cases only modestly (around 10% on average). Very few however expect to add new providers to their existing lists. Given the average number of providers this is not surprising. A number of clients mentioned a desire to see more algos to support pairs trading but generally clients appear very satisfied with the capabilities, capacity and quality being provided by JP Morgan. ■

JP MORGAN — DATA

% by number of responses *Hedge Funds* 2015	% by weight of responses *Hedge Funds* 2015	% by number of responses *Hedge Funds* 2016	% by weight of responses *Hedge Funds* 2016	% by number of responses *Total* 2016	% by weight of responses *Total* 2016
5.53	5.63	8.06	8.21	6.02	6.19

Best Performing Areas (Hedge Fund Scores)
Ease-of-Use
Execution Consistency
Customer Support

Morgan Stanley

Morgan Stanley may be a little disappointed with the results from hedge funds in 2016. Based on both weight and number of responses the share obtained by Morgan Stanley increased year on year. The position of Morgan Stanley with hedge funds is stronger than in respect of long only responses. In the context of these figures it is clear that Morgan Stanley remains a key provider to this client group and that its position remains very good.

While scores were solid, Morgan Stanley recorded a decline from 2015 levels. Its average, which was 0.12 points lower than a year ago, was among the weakest across the top providers. There was nothing in the scores to suggest that Morgan Stanley is competitively vulnerable. Rather the question is whether clients see its services as sufficiently distinctive to allow it to grow its business further. As an example its scores beat the hedge fund average in six of 14 questions. This is not a weak performance but nor does it suggest that clients are overwhelmingly satisfied. One of its relatively strong scores was in Customisation an area which, as was noted in the Market Review, generally attracted lower scores. Morgan Stanley is a model of consistency across all aspects of service which further reduces any vulnerability.

In terms of client mix, as would be expected Morgan Stanley has some of the largest and most sophisticated clients. However its responses also included some where it is the only broker as well as many where it is one of six or more providers. Usage for more than 40% of value traded was indicated by around 60% of Morgan Stanley clients, again similar to the survey average among hedge funds. Interestingly more than half of Morgan Stanley respondents are considering an increase in usage in the year ahead, a higher proportion than seen elsewhere. A larger proportion of respondents are looking to add new providers in 2016. These effects may cancel each other out in terms of trading with existing providers, but it is clear that there is no room for any complacency. ■

MORGAN STANLEY — DATA

% by number of responses *Hedge Funds* *2015*	% by weight of responses *Hedge Funds* *2015*	% by number of responses *Hedge Funds* *2016*	% by weight of responses *Hedge Funds* *2016*	% by number of responses *Total* *2016*	% by weight of responses *Total* *2016*
8.04	7.75	8.60	8.79	7.01	7.08

Best Performing Areas (Hedge Fund Scores)
Execution Consistency
Smart Order Routing
Cost

Liquidnet

Liquidnet capabilities are less focused on hedge funds and the firm was much less heavily represented in this part of the survey than with the long only firms. However, with long only firms increasingly using hedge strategies in respect of investment process, Liquidnet has received a number of relevant responses. Scores are not as consistent as those seen by more broadly based providers. In Anonymity and Internal Crossing scores were very strong in absolute and relative terms. Areas such as Customisation and Execution Consulting fared less well, but are equally much less important for Liquidnet clients.

Customers represent a relatively wide array for what is a smaller sample than that seen by other providers. Most clients are using multiple providers and are using Liquidnet for very specific purposes. All clients are using algos to a quite significant extent and average utilisation is higher than in the survey as a whole. Clients are interested in seeing more liquidity seeking algos made available as well as having access to a broader range of execution venues. No doubt as Liquidnet seeks to grow business, it will look into these specific requests from clients. ■

LIQUIDNET — DATA

% by number of responses *Hedge Funds* **2015**	% by weight of responses *Hedge Funds* **2015**	% by number of responses *Hedge Funds* **2016**	% by weight of responses *Hedge Funds* **2016**	% by number of responses *Total* **2016**	% by weight of responses *Total* **2016**
2.51	2.66	3.23	3.77	4.72	4.75

Best Performing Areas (Hedge Fund Scores)

- Reduced Market Impact
- Internal Crossing Capability
- Anonymity

Sanford C. Bernstein

Sanford Bernstein has some very large managers among its clients responding in this segment of the survey. More than 60% of its respondents use algos for more than 40% of their value traded. A similar proportion has assets in excess of $1 billion and all use multiple providers. Its performance is therefore being compared with that of many of the market leaders and that makes it all the more competitive. It is also working with fund managers through a wide array of execution management systems, which include Bloomberg EMSX, other vendors and proprietary systems. Again this implies a broad based business in terms of functionality, clients and intermediaries, which is necessarily complex to manage and develop profitably.

Not only did the firm receive a higher proportion of responses than a year ago, but it also achieved generally better scores; more consistent across all categories and with no real weakness. Customer Support is especially well regarded by clients as is performance in core areas such as Improving Productivity and Execution Consistency. Overall having grown in the last year, Sanford Bernstein appears well positioned to prosper in the future. ■

SANFORD C. BERNSTEIN — DATA

% by number of responses *Hedge Funds* **2015**	% by weight of responses *Hedge Funds* **2015**	% by number of responses *Hedge Funds* **2016**	% by weight of responses *Hedge Funds* **2016**	% by number of responses *Total* **2016**	% by weight of responses *Total* **2016**
3.52	3.43	4.30	4.35	3.90	4.04

Best Performing Areas (Hedge Fund Scores)

- Trader Productivity
- Execution Consistency
- Customer Support

UBS

UBS recorded a very strong showing in terms of share of responses. Numbers were higher than in 2015 and this was reflected in terms of UBS's share both by absolute number as well as weight of responses received. With a large group of respondents it might be anticipated that the profile of respondents would parallel that of all hedge fund questionnaires. That is indeed generally the case. However, just over half of UBS respondents use algo trading for more than 40% of activity by value and this is materially higher than the average. Most UBS clients do however have multiple providers and many are among the largest respondents measured by AuM. Based on the responses received it is clear that UBS continues to play a leading role as a provider of algo capabilities to a very broad range of customers, whether regarded in terms of size, location or investment strategy.

In terms of scores performance also showed a marked improvement. In absolute terms the gains in score may have been relatively modest. However in the context of generally declining scores in the survey, the relative perception of UBS as assessed by its clients appears to have been enhanced during the last twelve months. Scores were higher than a year ago in 10 of 14 questions and any declines were generally small.

Major moves forward were noted in Execution Consistency, Cost and Value Delivered and Ease-of-Use. UBS appears to have successfully focused on key aspects of service and reaped the reward in terms of better scores. In spite of this taken across all questions, UBS is still a little short of the position of some other major providers and so it cannot regard its catching up as yet complete. Importantly however it is moving strongly in the right direction.

In terms of client requirements, the most common request was for greater levels of customisation and flexibility generally. No doubt one of the problems of past success is the difficulty in keeping a very large and diverse customer base always satisfied. It is a problem that many of UBS's competitors would love to have. ■

UBS — DATA

% by number of responses *Hedge Funds* *2015*	% by weight of responses *Hedge Funds* *2015*	% by number of responses *Hedge Funds* *2016*	% by weight of responses *Hedge Funds* *2016*	% by number of responses *Total* *2016*	% by weight of responses *Total* *2016*
9.55	9.56	13.44	13.35	9.12	9.35

Best Performing Areas (Hedge Fund Scores)
Ease-of-Use
Internal Crossing Capability
Execution Consistency

Other providers

In previous years a number of firms would have found their way into a 'ones to watch' category reflecting the fact that they did not qualify for a Roll of Honour position due to having too few responses, but nonetheless were well regarded by clients and making progress in terms of growing their business.

This year we have identified a number of providers who came close to qualifying for an individual profile but response numbers were either insufficient or not broad enough to enable a proper evaluation to be determined. In the case of Barclays and Societe Generale there was a marked increase in response rates between 2015 and 2016. If maintained for another year they would almost certainly result in a write-up. Growth for Exane BNP and Jefferies was at a more measured pace but still positive. Deutsche Bank meanwhile saw its share of responses fall and clearly needs to reverse this trend if it is to qualify in future years. Other names such as Kepler, Macquarie and ConvergEx all received some responses but have further to go to match the names listed here.

In terms of performance Societe Generale scored at the best level among the names mentioned. They were particularly well regarded in Customer Support and Trader Productivity. Exane BNP achieved an average of better than 6.0 (Very Good) in three categories including Anonymity and Ease-of Use. Both these providers are perceived well enough by their clients to have reasonable hopes of growing business much further. Jefferies scored well for Customisation, an area where larger firms performed less well. Barclays and Deutsche Bank both recorded average scores that were relatively disappointing. There were some aspects of service that were encouraging in terms of scores but they will have to work hard if they are to extend their business in the way they each might hope and expect. ■

OTHER PROVIDERS — DATA

	% by number of responses *Hedge Funds* ***2015***	% by weight of responses *Hedge Funds* ***2015***	% by number of responses *Hedge Funds* ***2016***	% by weight of responses *Hedge Funds* ***2016***	% by number of responses *Total* ***2016***	% by weight of responses *Total* ***2016***
Barclays	0.50	0.54	2.69	2.65	1.95	1.87
ConvergEx	–	–	–	–	2.44	2.49
Exane BNP Paribas	1.01	1.16	3.23	3.23	2.93	3.10
Deutsche Bank	3.52	3.36	2.15	2.16	2.61	2.72
Jefferies	2.01	1.77	2.15	2.20	1.79	1.85
KCG	–	–	–	–	2.93	3.00
Societe Generale	0.50	0.39	3.23	3.15	7.49	6.84