
Best Execution:

The New Partnership



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Executive Summary

Best execution is now firmly in the regulators' sights. Traditionally considered the provision of enhanced execution performance as a fiduciary duty to end-investors, the main challenge to date has been the interpretation of this provision, which can alter dependent on the participant, the investment strategy, or the time of trade.

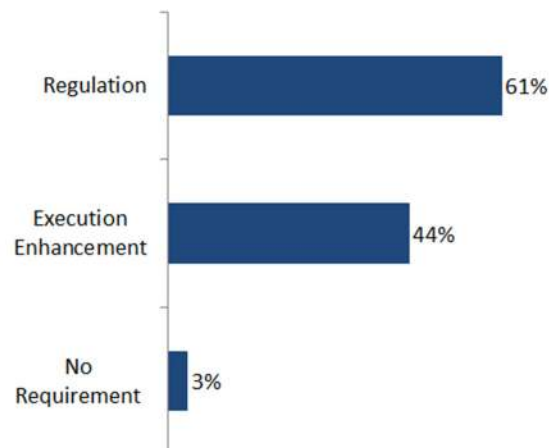
While recent events and changing market structure potentially make best execution harder to achieve, new regulatory obligations to quantify and qualify best execution performance will intensify these challenges. The increased regulatory focus now tops the reasons for investment firms to choose to review best execution policies (see Exhibit 1).

Under Article 27 of MiFID II, investment firms are now required to take all "sufficient steps"¹ to achieve best execution, including the publication of the quality of execution achieved, as well as internal monitoring processes to verify the effectiveness of the execution. The publication of the Regulatory Technical Standards by ESMA states that the regulation applies to "investment firms in relation to client orders executed on trading venues, systematic internalisers, market makers or other liquidity providers", including third country entities that perform a similar function. The debate is what constitutes the definition of "investment firm" and "client". Under MiFID II the investment firm can be perceived as both sell-side and buy-side. As a result, the Regulatory Technical Standards will require asset managers to identify and evaluate the top five execution venues in terms of trading volumes. This is anticipated to equate in the main to a firm's top five brokers.

New monitoring obligations will require investment firms to publish a "summary of the analysis and conclusions it draws from its detailed monitoring of the quality of execution obtained on the execution venues"². Whether in their role as a client or as an investment firm executing client orders, demonstrating best execution from both a fiduciary and regulatory perspective will necessitate a change in approach by many. From the buy-side internally reassessing what best execution means within their organisation, to externally communicating these requirements to the sell-side, as well as incorporating technology to demonstrate effective monitoring – all of which will require an investment in stronger partnerships throughout the execution life-cycle.

Market structure developments have already accentuated long-standing challenges in delivering best execution. The concentration of asset managers and decrease in contra trading by buy-to-hold investors makes entering or exiting an investment strategy problematic when

EXHIBIT 1
REASONS FOR REVIEWING BEST EXECUTION POLICIES



Source: TABB Group

1. Official Journal of the European Union L173, 2014

2. Regulatory Technical and Implementing Standards – Annexe 1, 2015, RTS 28, Article 27 (10)(b) of MiFID II

the order size represents several days' volume. The decline in the use of capital commitment combined with the need for greater transparency over order execution has led many on the buy-side to shift to self-directing order flow. Yet with ownership comes responsibility and greater accountability.

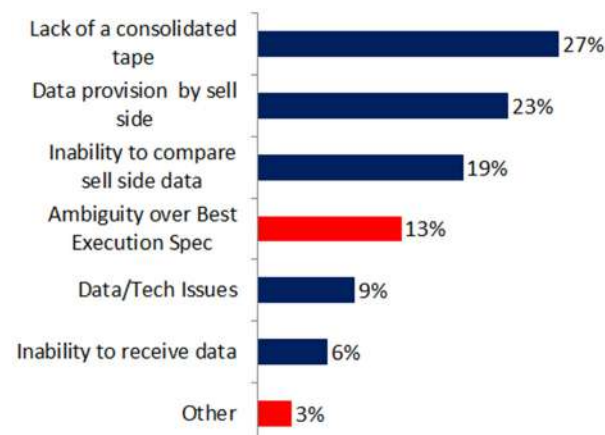
Without the traditional protection of brokers, the buy-side are already turning to independent analysis of their execution performance. The increased propensity by the buy-side to trade off-exchange using broker dark pools has accentuated this demand. Recent fines and exposure of potentially toxic activity in some US dark pools impacted levels of trust between participants and the venues they use. All market participants are now under pressure to demonstrate that they do not fall prey to nefarious activity, nor inadvertently encourage this type of activity. As clients' needs evolve, the ability by trading partners to understand and interpret these needs – from low touch algorithms to high touch blocks – will be critical. Only the unconflicted broker who enhances their buy side clients' ability to achieve best execution for the end investor through greater transparency over both process and performance will emerge successful in the post MiFID II world.

Sell-side to buy-side, it will be access to accurate, reliable and timely data that will be critical to demonstrate this provision of best execution. As such, the majority of respondents' highlighted data as their current main challenge (see Exhibit 2). Venue performance can fluctuate over time according to external market conditions as well as the individual parameters of the order being executed. Asset managers now need to understand not only where orders are executed but also the impact of executing on a particular venue at a particular time.

Greater accuracy and availability of information will enhance post-trade analysis and subsequent pre-trade selection. Managing different trading strategies based on long-, mid- and short-term alpha horizons as and when they occur maximises the opportunity to achieve best execution. While implicit costs are difficult to predict on an order-by-order basis, persistent patterns can emerge in aggregated data over time. As post trade data is fed into pre-trade venue selection, the increased use of real-time analysis will enable order execution to be tweaked even mid-execution to enhance optimal performance.

The provision of best execution has historically been linked to the provision of research. As unbundling takes hold, many firms are struggling to adapt current processes in assessing and selecting counterparties on the basis of execution alone. As such there is an increased focus towards a quantitative data metrics approach by heads of dealing to demonstrate they meet delivery of best execution. The technology arms race is increasing and market complexities will potentially offer those brokers with scale and technology an ability to differentiate.

EXHIBIT 2
GREATEST CHALLENGE IN THE PROVISION OF
BEST EXECUTION



Source: TABB Group

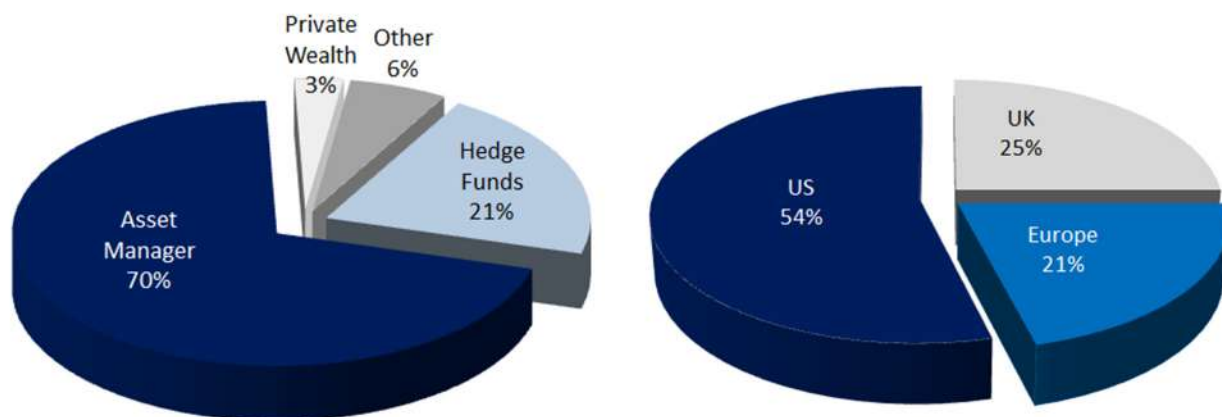
This will become increasingly important as market volatility increases; not least as regulators will place as much importance on monitoring executions as delivering best execution. Enriched data will allow asset managers to monitor broker performance as well as their own selection process. This will also require standardisation in the provision of data to enable sufficient like-for-like comparisons. The introduction of the use of Market Identifier Codes under RTS 28 will be an important step forward in this process.

However, the reality remains that the majority of buy-side participants are still far from receiving all the data required. Even when data is provided, not all buy-side firms have the capability to consume the data, let alone conduct sufficient analysis. While there may not be the demand yet from the end-investor to provide this level of scrutiny, the overall regulatory objective is clear. Asset managers owe a duty of best execution to their end-clients and this must not only be evidenced but also rigorously monitored.

To discuss the challenges now facing the buy-side in the provision and monitoring of best execution, TABB Group conducted research with 81 global heads of trading in August 2015; more than 70% of which were institutional investors based across the globe (see Exhibits 3 and 4).

EXHIBITS 3 AND 4

DEMOGRAPHICS OF SURVEY PARTICIPANTS (BY FIRM TYPE / LOCATION)



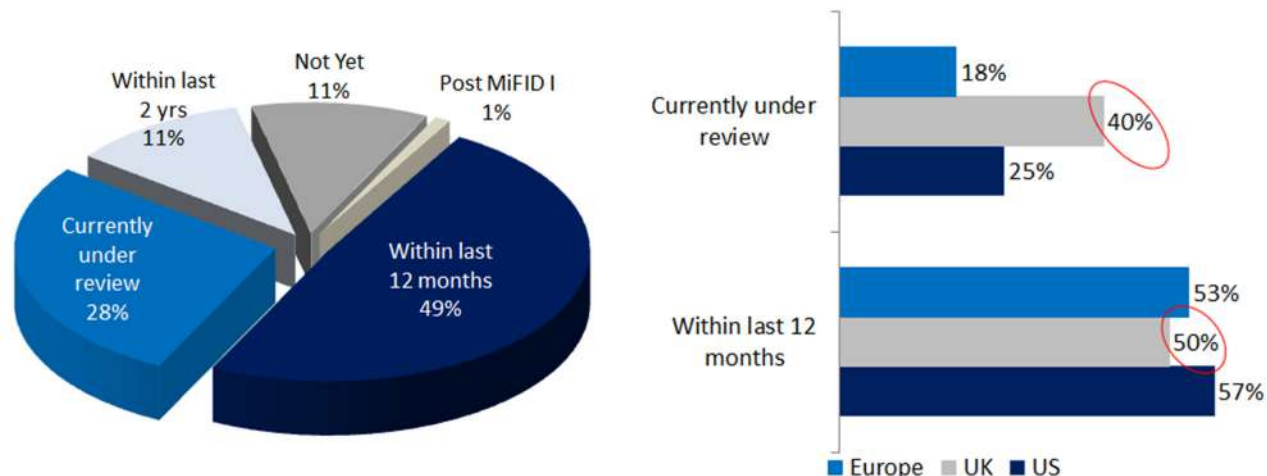
Source: TABB Group

Regulatory Spotlight

As a result of renewed regulatory focus on the provision of best execution, 81% of buy-side firms are currently reviewing or have reviewed policies in the past 12 months (see Exhibit 5). The greatest focus is in the UK, where the figure jumps to 90% (see Exhibit 6).

EXHIBITS 5 AND 6

REVIEW OF BEST EXECUTION POLICIES (ALL PARTICIPANTS / BY REGION)



Source: TABB Group

"We formally publish every year but it's more a daily process where we try to create best on class performance for our PMs and our clients"

–Large EU Asset Manager

Typically, the official version of the best execution policy will be included in an investment handbook and reviewed annually. However, competition in the asset management industry is fierce, and many large dealing desks now consistently review their performance – internally and externally. Estimating the cost of the trade ahead of execution improves strategy and venue selection, thereby maximising opportunities to create alpha for enhanced fund performance.

Traditional methods of accessing liquidity will be constrained going forward, forcing difficult discussions to be made over what exactly best execution means for a firm, and where, when and how this can best be achieved. The granular level of broker and venue quality now required is forcing many firms to question long-held beliefs as well as existing practices. A global investment bank may have greater flow visibility, full exchange membership and state-of-the-art technology, but without advisory services or the ability to offer capital, their true execution capabilities are laid bare.

Those brokers who opt to put unconflicted client execution front and centre in their business strategy will continue to win market share, but competition is coming from new sources. Innovative platforms such as Plato Partnership, Project Neptune and Luminex are emerging alongside trusted alternative venues such as Liquidnet, ITG Posit and Turquoise Block Discovery. Buy-side firms are now not only reviewing who their top brokers are but

"We are now in direct talks with two HFT firms to understand how we can interact with their liquidity."

– Large EU Asset Manager

whether they should be looking further afield at alternative liquidity sources, even linking to high-frequency trading (HFT) pipes for faster access to liquidity.

Going Global

In reviewing and implementing a best execution policy, there is also a new level of continuity required globally. Firms can no longer operate in regional isolation. Increased connectivity means it is easier to move data from one system to another, but those systems have to act in tandem in order to sync successfully.

Standardisation of data plays one part, while standardisation of process and workflow plays another. With the increased global nature of asset management, what is implemented in one jurisdiction needs to be assessed, if not implemented, in another. As a result, despite US firms not being directly regulated by Europe, 26% of US respondents have triggered a review of best execution policy as a direct result of European regulation (see Exhibit 7).

As currently required under MiFID I, investment firms will be obliged to disclose their execution policy to their clients and to receive prior consent from these clients. However, MiFID II aims to improve investor protection and the efficiency of best execution assessment by increasing the transparency of firms' policies, as well as extending this across the asset classes to more opaque trading practices in fixed income and rates.

"We are a global organization. Our compliance has to take into account global regulation."

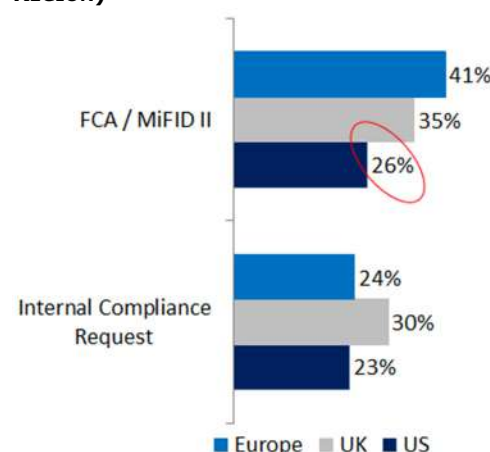
- Large US Asset Manager

Investment firms must provide information on the top-five venues where the firm executes its clients' orders in terms of annual trading volumes and the factors affecting the choice of execution venues "in sufficient detail and in a way that can be easily understood by clients". This additional information covers areas such as client order volume, execution costs, rebates and their reasons for selecting these venues. While

opponents may argue this is of little value given that this information is only to be published annually and will risk firms drowning in a sea of data, the currently proposed Regulatory Technical Standards (RTS) will require firms to make significant changes to their systems, technology and workflow processes, to ensure compliance.

Firms must also monitor the effectiveness of their order execution arrangements and execution policy to identify and correct any deficiencies. This will involve an assessment, on a regular basis, of whether the execution venues provide the best possible result for the end-investor. In the recent thematic review on best execution, the UK's Financial Conduct Authority (FCA) stated that most firms lack effective monitoring capability to identify inadequacies in best execution policies, delivering "poor client outcomes". While transaction cost analysis (TCA) is

EXHIBIT 7
REASONS FOR REVIEWING BEST EXECUTION POLICIES (BY REGION)



Source: TABB Group

part and parcel of automated trading today, monitoring of best execution now covers all execution methods as well as all asset classes. This will have a particular impact on over-the-counter (OTC) trading, where investment firms (buy-side and sell-side) can no longer rely on clients accepting quotes as compliance with the provision of best execution. Unique challenges such as the ability to lay-off or warehouse related risks and costs, or executing only with creditworthy counterparties rather focusing only on the best available price, create additional complexity for firms to demonstrate they are delivering best execution.

Similarly, firms can no longer receive any remuneration, discount or non-monetary benefit for routing client orders to a particular trading venue or execution venue. Where there is more than one venue competing to execute an order for a financial instrument, the firm's own commissions and the costs for executing the order in each venue have to be taken into account. Where fees differ by execution venue, the firm must provide the clients with sufficient information to allow them to understand any advantages or disadvantages over venue selection.

MiFID II also imposes a new obligation that firms must notify clients with whom they have an ongoing relationship of any material changes to their execution arrangements or execution policy. The European Securities and Markets Authority (ESMA) requires firms to conduct this review "at least annually" and defines "material change" as "a significant event of internal or external nature that could impact parameters of best execution".

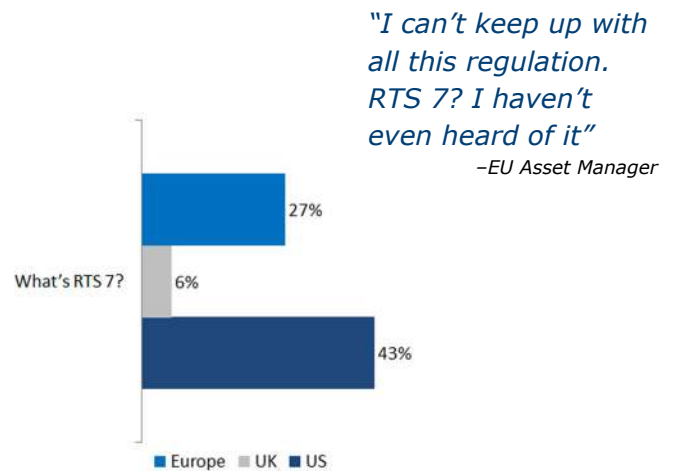
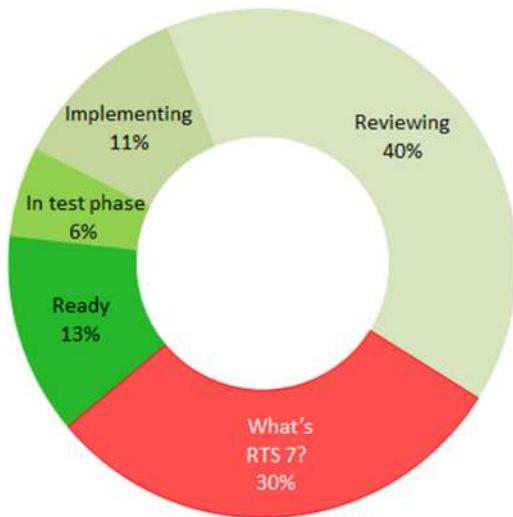
These additional layers of regulatory complexity create a fine line, which now needs to be balanced between a global policy that is too prescriptive and prevents execution, versus a vague document that is of little value and risks non-compliance. All of these factors now shift the demonstration of best execution into a new gear.

RTS 7 to 28

Under MiFID II asset managers who receive and transmit orders will be subject to the same requirements as those executing the orders, yet nearly a third of firms were unaware of RTS 7, the precursor to RTS 28, including 27% of European asset managers. Just 13% of firms believe they are ready (see Exhibits 8 and 9).

EXHIBITS 8 AND 9

FIRMS READINESS TO MEET BEST EXECUTION REGULATORY OBLIGATIONS (ALL PARTICIPANTS / BY REGION)



Source: TABB Group

"I haven't even looked at the categories in identifying what the top five are yet"

— Large EU Asset Manager

The content and format of information investment firms are to provide includes indicating the top-five execution venues in terms of trading volumes where firms have executed client orders in the preceding year for each class of financial instrument. It also should include information on the quality of execution and internal monitoring of execution quality as

per Articles 27 (3), (6) and (7). Investment firms will also be required to publish an assessment of the quality of execution obtained on all venues used by the firm for each asset class, in order to "allow investors to assess the effectiveness of the monitoring carried out by investment firms in relation to those execution venues"³

"For me it's the sheer volume of the data which is overwhelming. What is anyone going to be able to do with all this?"

— Large Global Asset Manager

Some market participants argue that the level and detail of information required is applicable for sell-side firms only and it was never the regulator's intention to put asset managers in scope in this way. The request for such data for end-investors is perceived as irrelevant; if data is to be provided on an annual basis, one month after year-end, it will be too little, too late. For the information to be provided to be of value, it needs to be as near to real-time as possible.

2. Regulatory Technical and Implementing Standards – Annexe 1, 2015, RTS 28, Article 27 (10)(b) of MiFID II

Others acknowledge that the current proposals are merely an extension of best execution rules already in place. There is an argument that by making the asset manager responsible for extracting detailed information from the execution venue, there will be far greater clarity and transparency over order routing processes and underlying behaviours.

There may yet be an amendment to RTS 28 to provide a level of distinction between the different types of market participants and therefore the level of disclosure required by asset managers in the Delegated Acts to be released later this year. However, while regulation is clearly accelerating the need for change, the best execution review process has already begun. As firms qualify what this means for their organisation and how it can be achieved, the increased responsibility in today's environment to meet "best execution" raises multiple challenges.

Buy-Side Challenges

Best execution today is contingent on a variety of factors, such as urgency to trade, the size of the order, available liquidity, leakage concerns or counterparty selection. Recent competitive responses by venues to gain market share create additional complexity. Auctioning, splitting and managing executions over time make achieving best execution elusive. Being held accountable to a quantifiable standard given the scope of execution possibilities today and the fact that results can never be known in advance requires a different approach to achieving best execution.

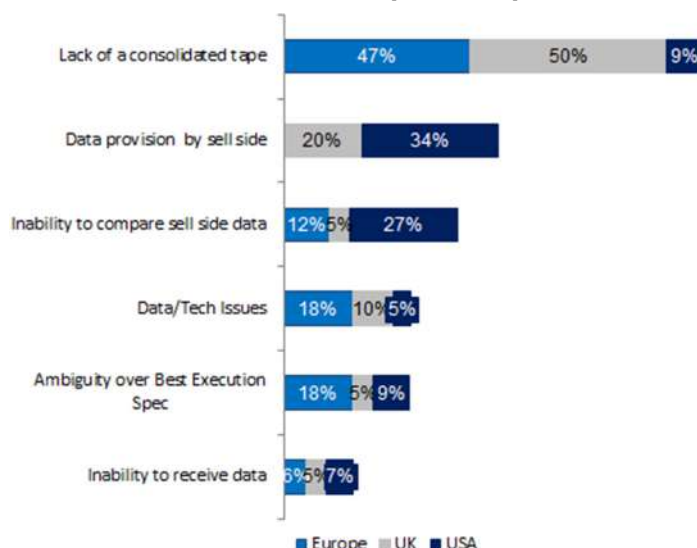
"Best execution is like choosing to take a detour when I hit a traffic jam on a motorway. I will arrive at my destination but I will never know whether I should have taken the detour"

– EU Market Participant

For example, it may be preferable to fill an entire order at a slightly higher price than to fill only part of the order at a lower price, particularly if information leakage may adversely affect the residual balance of an order; but this "may" is always a risk. For firms to quantify and qualify their best execution today, the calculation of this risk is essential. Hence, the increased need to aggregate and analyse data in a standardised form, pre and post execution (see exhibit 10).

EXHIBIT 10

GREATEST CHALLENGE IN THE PROVISION OF BEST EXECUTION (BY REGION)



Source: TABB Group

Given the continued lack of a consolidated tape in Europe, this unsurprisingly tops the list of concerns for UK and European firms, with 50% of UK respondents and 47% of European respondents citing this as their greatest challenge, versus less than 10% of US respondents (see Exhibit 10). US firms, by comparison, are more focused on the provision of data by the sell-side and their internal inability to compare brokers' execution capabilities.

New Challenges

Whether looking at the lack of a consolidated tape or the provision of data, the quantity of data firms will have to access and use to determine best execution at any given time will be critical. Complaints on quantity and quality of data have greater significance given that firms now need to be able to measure over the lifetime of an order rather than just an individual child order, requiring data from multiple sources to verify and compare.

"My challenge is data – full stop. Quality of data going in, our ability to handle it and quality of third-party reports coming out"

– Large UK Asset Manager

Peer-to-peer comparison is not only difficult due to the lack of data provision by brokers but also the lack of sophistication in existing TCA systems. To establish levels of performance intraday, some systems require analysis of every individual trade, which is not viable from a resource perspective. Other systems need multiple manual workarounds before data can be compared, which makes

them limited in scope for the purposes of best execution analysis post-January 2017.

Further challenges are created from the wider use of technology and connectivity. For example, when a firm sends an order to a broker and the order is lost due to a technology failure that loss of execution is also clearly a risk to best execution. Being able to historically archive and access data information will require significant data capture, storage and number crunching. The increasingly granular processes and use of technology to monitor best execution will require firms not only to build costly engines behind their operations to monitor effectiveness, but all systems will require consistent reinvestment, from order and execution management systems through to analytics.

"TCA needs to get more sophisticated. Current systems need huge workarounds, which are just not viable"

– Large EU Asset Manager

Versus Traditional Factors

"If you want to play in the champion's league, you have to pay up – it's now the same for our industry"

– Large EU Asset Manager

New challenges unfortunately do not negate historic issues. Information leakage is still high on the list for most asset managers, particularly if they are primarily liquidity seekers with multi-day orders, operating in less-liquid names. In such environments, keeping information contained can have a direct impact on the available price in the market. While

under the MiFID II definition of best execution, "price, costs, speed, likelihood of execution and settlement, size, nature or any other relevant consideration" should be considered, the retail investor is unfortunately only likely to have concern for the price. MiFID II imports the concept of the best possible result for a retail client being determined in terms of "total consideration". Total consideration is the sum of the price and the costs incurred by clients.

"People now shy away from talking about price but the financials of your order remain very important"

– Large EU Asset Manager

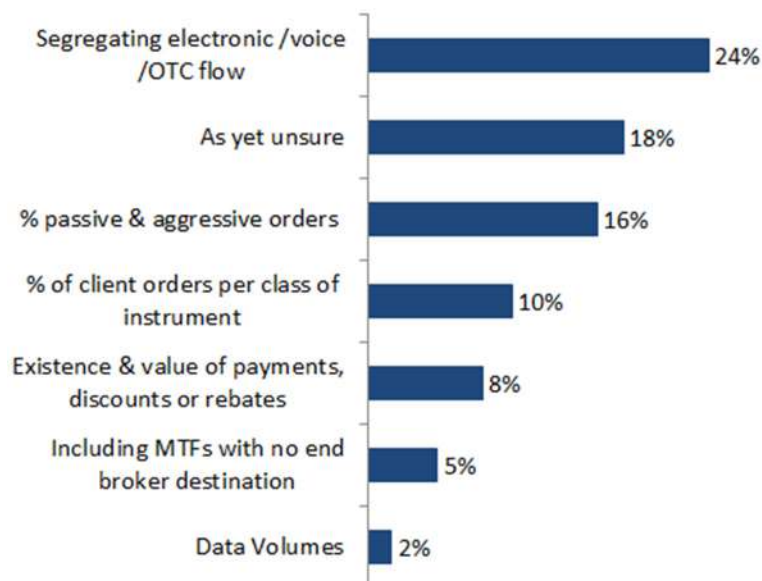
Recent FCA guidance distinguished between the explicit external and internal costs of execution for retail client orders. External costs include commissions, fees, taxes, exchange

fees, clearing and settlement costs, or any other costs passed on to the client by intermediaries participating in the transaction. Internal costs represent a firm's own remuneration (including commission or spread) for completing a transaction. When fees applied by an investment firm differ depending on execution venue or entity used, the information should be provided to clients to ensure the commission rate is at least a fair rate to both sides involved, the client and the broker. The challenge for the buy-side dealing desk is that their internal clients as well as external ones are also more likely to focus on "best price" rather than the total cost of trade, including venue, clearing, settlement fees, taxes and/or charges. Yet all of these explicit costs will also be subject to best execution if passed on to the client.

While the increased use of FIX tags 29, 30 and 851 has provided asset managers with greater transparency as to where, when and how their automated trades have been executed, many have little or no idea how voice trades are processed due to the lack of data currently available. Respondents highlighted this as the greatest challenge currently (see Exhibit 11). Similarly, the percentage of passive and aggressive orders now requested by RTS 28 could be provided within FIX tag messaging. Currently, this is not requested, and if it were to be requested, there is no guarantee it would be provided. Some firms have concerns that FIX messaging tags will become overloaded, which can slow down processing times. Low latency levels improve smart order routing (SOR) processing capability.

EXHIBIT 11

CHALLENGES IN MEETING REGULATORY OBLIGATIONS (ALL PARTICIPANTS / BY REGION)



Source: TABB Group

Trust and Transparency

Despite the number of participants who have yet to send out a routing questionnaire (see Exhibit 12), over half the respondents felt somewhat confident in understanding what happens to their order flow and the quality of the liquidity they are interacting with (see Exhibit 13).

Levels of confidence in the quality of liquidity firms are interacting with appear to be a question of perception versus reality, with trust and transparency inextricably linked. Multilateral

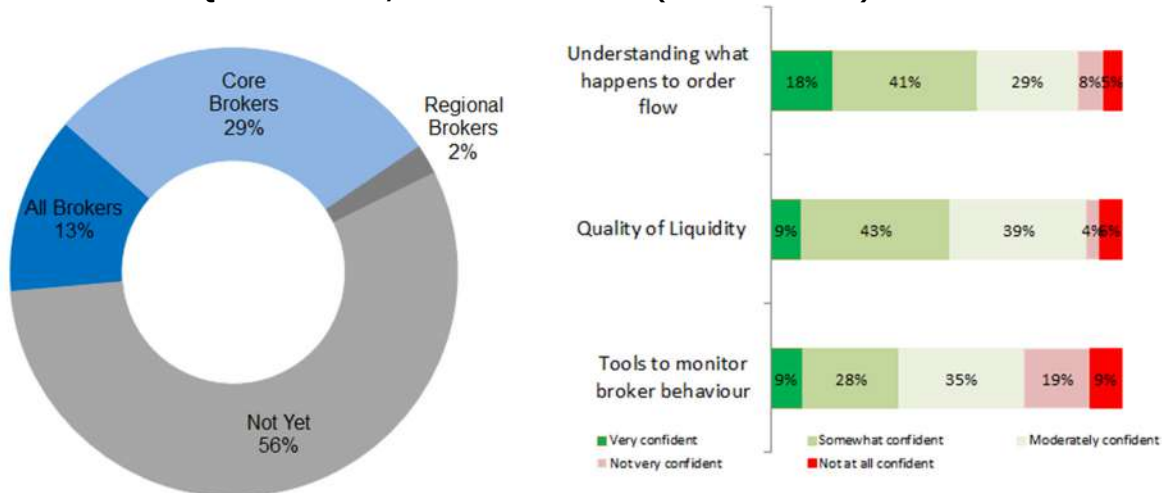
"It varies from venue to venue; I'm not confident in exchange dark pools. They shouldn't even provide the architecture for HFT-style entities to operate"

– Medium-Sized UK Asset Manager

trading facilities (MTFs) by their very nature are obligated to offer impartial access to all, yet different MTFs were perceived to have a wide spectrum of liquidity quality. The imposition of minimum order sizes limits the type of market participant certain MTFs attract, even if the source of the end-counterparty cannot be controlled. In addition, managers' levels of confidence are based on sending questionnaires only to those brokers whose electronic offering they access directly, as opposed to all brokers, which could alter the outcome.

EXHIBITS 12 AND 13

USE OF BROKER ROUTING QUESTIONNAIRES / LEVELS OF CONFIDENCE (ALL PARTICIPANTS)



Source: TABB Group

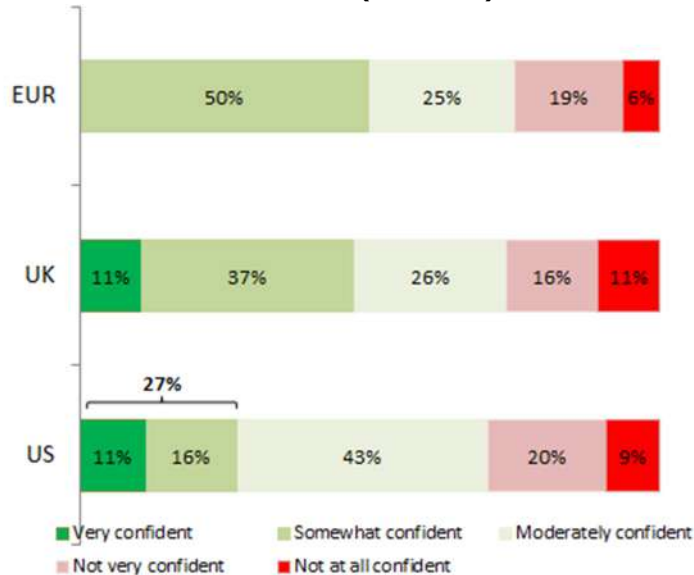
In looking at the responses geographically, based on tools to monitor broker behaviour, 50% of EU respondents and 48% of UK respondents are fairly confident of their ability to monitor, versus only 27% of US respondents (see exhibit 14, next page). Views were mixed on whether the distrust shown within the US buy-side is justified and conversely whether the trust shown by European asset managers is naive. While recent negative broker behaviour issues have focused on the US, there was little distinction between the geographical differences in the numbers of routing questionnaires sent to the sell-side.

"All the issues in dark pools have been in the US – Pipeline, ITG you name it, they are all US-centric issues based on how US markets have evolved"

– Large Global Asset Manager

Where routing questionnaires were seen as valuable was verification that algorithms were behaving as they should. One firm cited an incident where fill analysis post a routing questionnaire highlighted suboptimal performance. Once flagged to the sell-side firm in question, it was established that a technology upgrade had inadvertently wiped out customisations the buy-side firm had requested.

EXHIBIT 14
LEVELS OF CONFIDENCE IN MONITORING BROKER BEHAVIOUR (BY REGION)



Source: TABB Group

"If you are paying a broker to do a job and you give them a load of controls, then they ask somebody else to do it, then they're not in control of the order, which is not acceptable in my view"

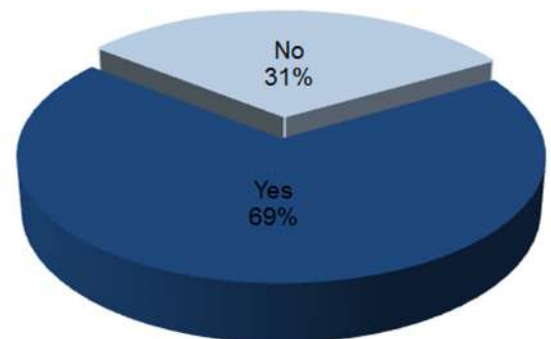
–Large UK Asset Manager

What matters more to the buy-side now is greater transparency over what a broker is doing, why and when. This is what facilitates the level of trust.

For example, 69% of respondents believe it is acceptable for brokers to access a market via a third party – but this is dependent on the circumstance and the level of transparency they provide (see exhibit 15).

Of greater concern was not that the firm was accessing a market using a third party, but that the firm was still able to demonstrate that they have control over the conditions in which they are accessing that liquidity.

EXHIBIT 15
SHOULD BROKERS ACCESS A MARKET USING A THIRD PARTY?



Source: TABB Group

BCN versus SI

While just 36% of all respondents overall have concerns about future increases in the use of systematic internalisers for broker crossing network (BCN) flow, this number jumps to 55% in the UK (see Exhibits 16 and 17).

EXHIBITS 16 AND 17

DO YOU HAVE CONCERNS OVER THE FUTURE INCREASED USE OF SYSTEMATIC INTERNALISERS FOR BCN FLOW?
(BY REGION) / **REASON FOR CONCERN (ALL PARTICIPANTS)**



Source: TABB Group

"We recently cut off an algo provider. They were putting in small fills from their internal market maker at the start of each order, even though we had specifically requested we did not want this"

–Large EU Asset Manager

Lack of transparency was highlighted as the main concern (see exhibit 18). If the other side of the trade is unidentified, firms find themselves unable to protect themselves from the risk of undisclosed spreads and poor execution outcomes. However, current concerns of further obfuscation of agency versus principal trading and potential conflicts of interest leading to poor execution outcomes were half those related to transparency (see Exhibit 17).

Understanding who operates within a particular systematic internaliser – and the rules, parameters and routing logic – can easily be addressed by the sell-side community provided they chose to be transparent with their clients.

While certain respondents did not envisage any eventuality where they would want to match against a broker's principal desk, others have no issue, provided everything is correctly identified as principal within FIX messages or the audit trail.

Trust and partnership remain key elements in the provision of best execution. Trading electronically provides real-time fills with full venue tags, the ultimate transparency that buy-side firms need to independently verify their selection process and monitor broker behaviour, even if the negative behaviour is not intentional. As data sources improve, the ability to monitor and verify will improve, as will levels of trust between the buy-side and sell-side, irrespective of the execution method selected.

"Do I want to know or care who is on the other side of the trade as long as I get my fill – not really. I just need the information to be accurate"

–Large UK Asset Manager

TCA Today and Tomorrow

Under current proposals there is a requirement to provide information on the quality of

"High-level TCA is no longer enough. We now need to have far greater in-depth granular measurement of our executions. As a result, we are currently reviewing our TCA provider"

–Large EU Asset Manager

execution based on internal monitoring of execution quality. In the main, buy-side firms are still dependent on TCA, but whereas in the past they may have had one, maybe two providers, increasingly they are looking at multiple providers to assess who can best meet their needs going forward.

Historically, the provision of best execution has been linked to the provision of research. As unbundling takes hold, many firms are struggling to adapt current processes in assessing and selecting counterparties on the basis of execution alone. For example, trading a small and mid-cap name may require not only pure execution capabilities, but knowledge of order flows and the ability to negotiate a large block or certainty of settlement that will deliver "best execution" in its truest sense.

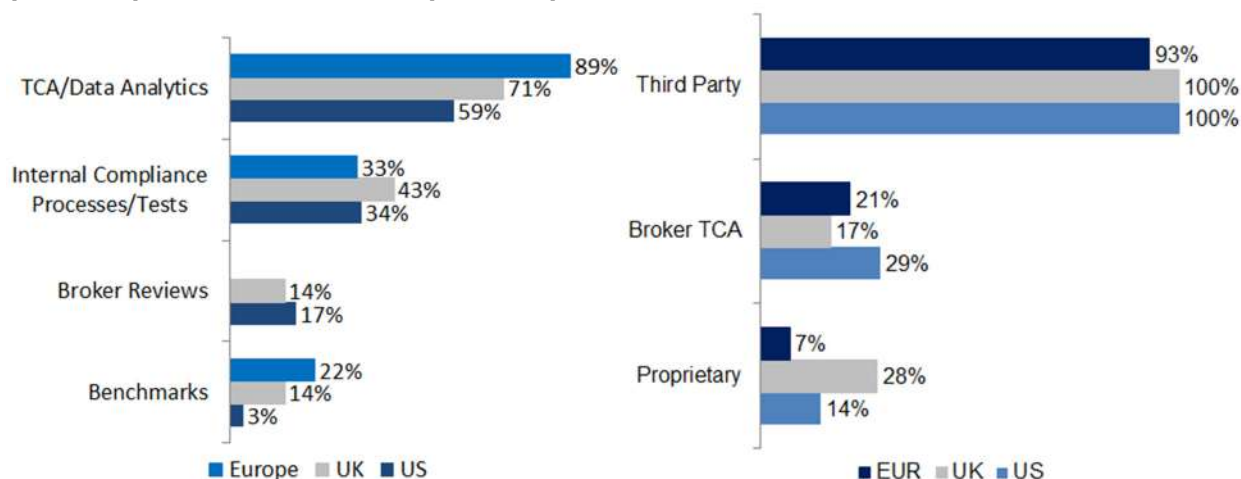
While monitoring of best execution has been somewhat sporadic at best, asset managers are now focusing on greater internal quantitative analysis. Of the 86% of respondents who are currently monitoring their best execution practices, European and UK firms are choosing to do this via TCA and analytics (89% and 71% respectively), whereas 34% of US respondents rely on internal compliance processes and 17% on broker reviews (see Exhibit 18). No European firms cited broker reviews as a method for monitoring best execution.

"It's the ability to monitor the order handling process as much as an individual execution result"

–Medium-sized UK Asset Manager

EXHIBITS 18 AND 19

HOW ARE YOU CURRENTLY MONITORING YOUR DECISION-MAKING PROCESS IN TERMS OF BEST EXECUTION (BY REGION) / TYPE OF TCA PROVIDER (BY REGION)



Source: TABB Group

The US has the highest proportion of firms relying on broker TCA, all geographic regions relied heavily on a variety of third-party vendor products. However, 29% of UK participants are looking at proprietary methods to monitor transactions (see Exhibit 19).

"We had gone so far down the road with our current TCA provider that we have been holding onto them like a bad marriage. Eventually there comes a point when the pain of starting all over again wins out"

-Large EU Asset Manager

While many firms focused on TCA and third-party analytics, several firms acknowledged that they are reaching limitations with current providers and are now looking for greater capabilities and richer analysis. This includes reviewing individual "child" executions in the correct context of the full order and applying multiple benchmarks where necessary. Firms acknowledged that TCA alone would not achieve best execution, but rather that it is one of many tools to understand why performance and execution decisions are taken, not least as a tool to demonstrate to

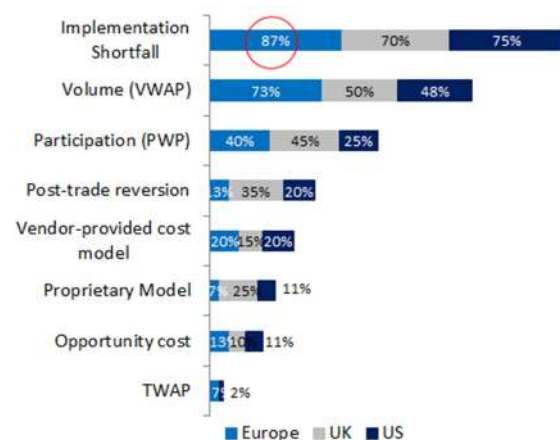
end-clients who now expect external third-party verification of benchmarked executions.

Benchmarking Benchmarks

The use of benchmarks has historically meant measuring performance against a single benchmark. However, now it appears that what needs to be assessed is whether the correct benchmark has been chosen, and if single or multiple benchmarks are now required. While implementation shortfall is now the benchmark of choice, volume-weighted average price (VWAP) is still used by nearly three-quarters of EU respondents (see exhibit 20). Implementation shortfall now often incorporates a participation-weighted price (PWP) benchmark, where the pre-trade analysis estimates the cost of dealing and then handicaps it for market volatility, size of spread and size of order.

UK respondents had the widest mix of benchmark usage, including PWP (45%), post-trade reversion (35%) and proprietary models (25%), when looking at a variety of analysis depending on the stock in question, market conditions, volatility, size of spread and size of order. Best execution needs to be more than just blindly benchmarking trades against the rest of the market, but requires an understanding of the full trading objectives of the Portfolio Manager. If the objective is to gain market share in a small cap immediately, PWP is useless. Alternatively, if the objective is to find a low-impact strategy to build a large position, a variety of benchmarks can be adapted relative to current market volatility, adjusting for the performance achieved.

EXHIBIT 20
BENCHMARKS USED FOR PARENT LEVEL TCA (BY REGION)



Source: TABB Group

Measurement Methods

Irrespective of the final regulatory outcome, broker selection on past performance will be an important first step in a dealing desk meeting their best execution obligations. For this to be achieved, qualitative metrics need to be obtained based on the fill profile of the broker or venue in question. First, there is the question of what information needs to be measured to achieve this, and second, how reliable the input of data is in order to create valuable output.

The current sense of hysteria, justified or not, creates real issues as to how firms can ensure they are not victim to brokers benefiting from short-term profits at their expense. While the majority of firms continue to review daily liquidity statics, more are choosing to interrogate the post-trade information they receive to input this

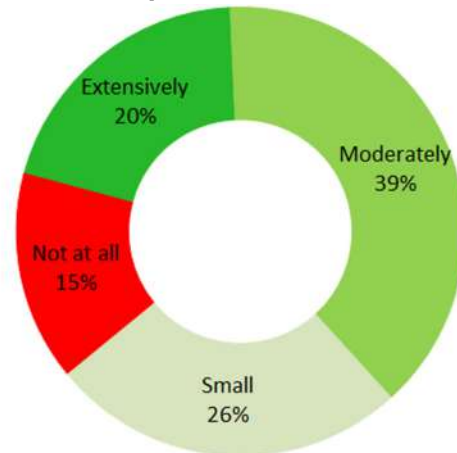
"We need to look at the picture as a whole rather than getting trapped by the TCA"

—Large UK Asset Manager

into their pre-trade selection process, with only 15% of respondents choosing not to use post-trade data in this way

(see exhibit 21). By simulating trading outcomes of orders placed by trading strategies with some kind of short-term inventory or risk model, firms can gain valuable intelligence based on a variety of potential pre-trade measurements.

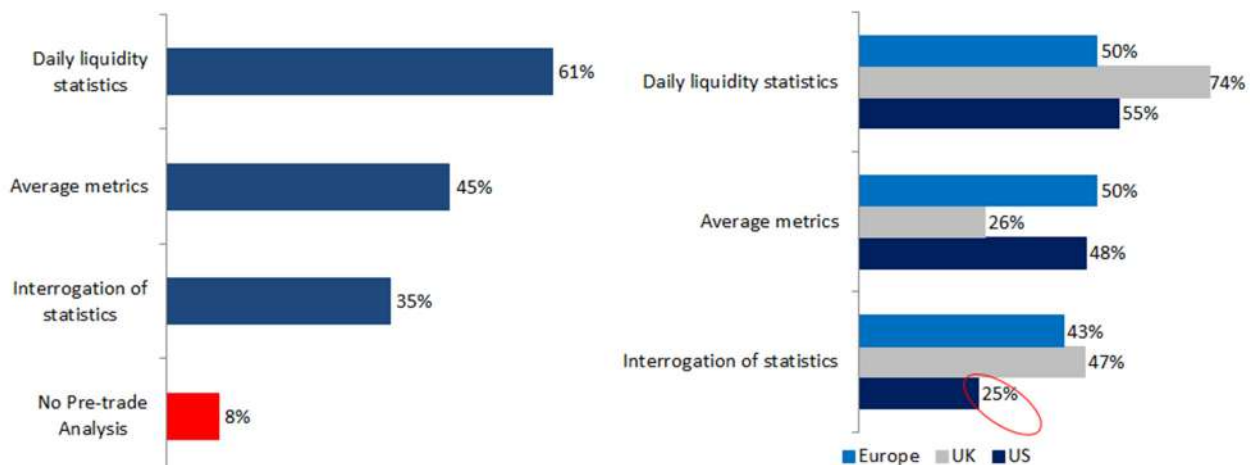
EXHIBIT 21
USE OF POST-TRADE DATA IN PRE-SELECTION PROCESS
(ALL PARTICIPANTS)



Source: TABB Group

EXHIBITS 22 AND 23

WHAT MEASUREMENTS DO YOU CONSIDER WHEN SELECTING A PARTICULAR VENUE OR ENTITY – PRE-TRADE (ALL PARTICIPANTS / BY REGION)



Source: TABB Group

Execution venue performance cannot be separated from trading strategy selection, current market conditions or execution constraints. However, it can significantly influence performance outcomes. The greater the buy-side knowledge of routing practices and individual venue performance, the better the opportunity for asset managers to optimise the suite of tools at their disposal.

"Firms need to be asking was this the right execution, were we interacting with the right liquidity-did I get the best result for my end-client-and this is not on an ad-hoc basis. This now needs to be a formal, regular process"

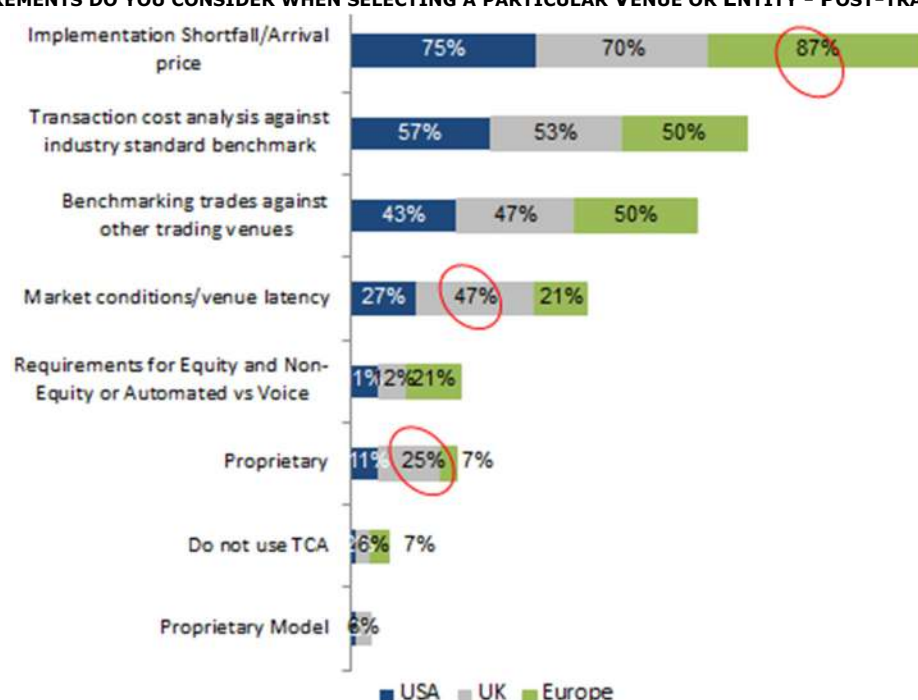
—EU Market Practitioner

Firms are currently focused on fill profiles flowing back to algorithms from routing information in order to highlight any disparities in how strategies place orders into the markets. Routers may be directed to certain venues that emphasise the flow type within a particular execution venue, reinforcing the performance of certain venues. Fill size can also be dependent on the make-up of participant types in a particular venue, as well as the nature of the strategy – for example, large passive orders versus smaller aggressive fill sizes. The challenge for venues is that

thorough policing of their venue may conversely exclude valuable liquidity, which leads to lower fill rates, and a lessening in the propensity to select a venue for order routing.

EXHIBIT 24

WHAT MEASUREMENTS DO YOU CONSIDER WHEN SELECTING A PARTICULAR VENUE OR ENTITY - POST-TRADE (BY REGION)



Source: TABB Group

Some firms cited moving their analysis to real-time in order to inform traders how their executions are performing versus multiple benchmark targets. Daily post-trade back testing enables firms to compare each order execution – including venue costs – against other alternative venues where the execution could have occurred. This data can then be incorporated into the review process to further enhance execution decisions and investigate

any underperforming areas. As the role of execution performance increases to maximise short-term alpha opportunities, the requirement for data provision will increase and further development in this area is likely, enhancing the delivery of best execution to end-clients further.

The next level is the question of how many algorithms a firm then chooses to use. Given the level of knowledge investment firms will be expected to make in relation to individual broker algorithms under Article 4 of MiFID II, there are those that question how many different algorithms they will choose to bring on board. While many broker algorithms are seen as generic, there is a risk that new entrants will possibly not even make it on to the roster given the increased workload required to achieve this. Some would argue that this is counterintuitive to the provision of best execution.

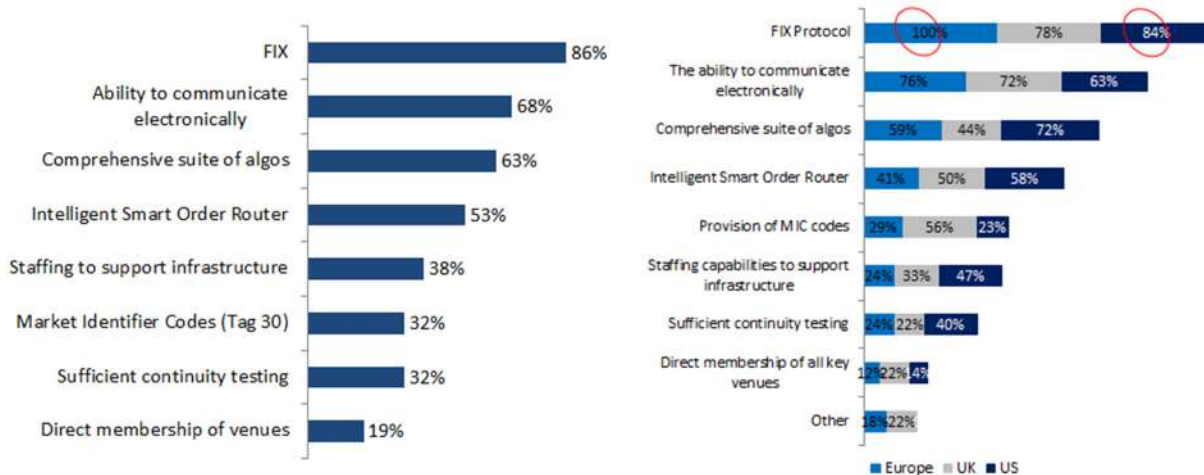
The consideration of trading strategies highlights the complex balance between the instigator and executor of a trade. The monitoring of best execution has slowly shifted from reaching an exchange, to landing on a sell-side desk, to landing on a buy-side dealer's desk. The next step surely is the timing of the investment decision itself.

Role of Technology

Eighty six percent of respondents stated that FIX was now a minimum requirement for brokers to receive working orders (see exhibit 25). This number rose to 100% of respondents in Europe versus 88% in the US and 78% in the UK. US respondents also cited a comprehensive suite of algorithms/ SOR as a pre-requisite for brokers to receive working orders (see Exhibit 26).

EXHIBITS 25 AND 26

HAVE YOU IMPLEMENTED MINIMUM REQUIREMENTS FOR WORKING ORDERS (ALL PARTICIPANTS / BY REGION)

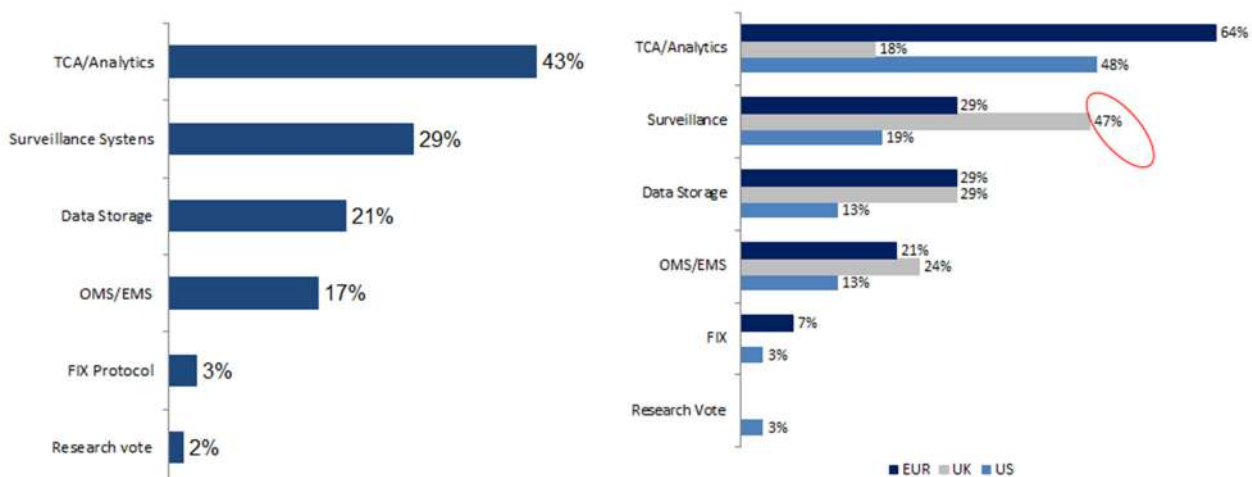


Source: TABB Group

However, just 3% of firms plan to invest further in FIX technology. The greatest investment in technology is expected to be TCA and analytics (see exhibit 27). This figure jumped to 64% for EU respondents and 48% for US respondents but dropped to 18% for those based in the UK – their focus is now on surveillance systems and data storage, with 47% and 29% of firms respectively planning to make investment here (see Exhibit 28).

EXHIBITS 27 AND 28

WHAT TECHNOLOGY INVESTMENTS WILL YOU MAKE TO ENSURE COMPLIANCE? (ALL PARTICIPANTS / BY REGION)



Source: TABB Group

"If I take a broker's algo pack, I have total control over which venues we go to. If I give an order to a sales trader I have no way of mapping the same restrictions, which only makes me want to use algos more"

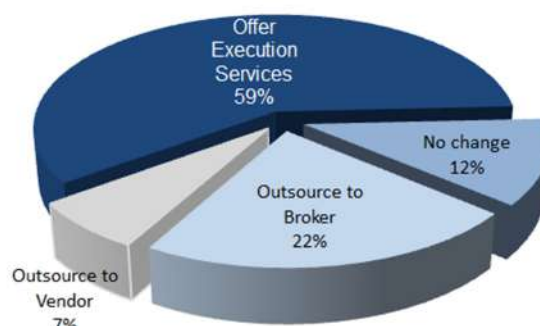
—Larqe Global Asset Manager

Technology provides the buy-side dealing desk with a greater level of direct control versus the lack of control many perceive still exists in routing flow to a sales trader. Greater control over FIX tags has enabled the buy-side to dictate which venues their algorithms visit, whereas if an order is given to a sales trader, buy-side dealers cannot turn off where orders are routed to. Not being able to map the same restrictions to high-touch flow creates an additional incentive to use algorithms, particularly with

the additional requirements to demonstrate best execution.

As technology improves information flows to locate natural liquidity, buy-side firms are liberated from passively waiting for information flows from sell-side brokers. Improved order management system technology and greater automation of processes enables firms to trawl current, past and intended portfolios to find the optimal opportunity to trade. As automation of order processes increases, the greater the quantity of data being routed electronically and, therefore the greater the opportunity to quantify any execution decisions taken. Automated flows also increase the number and variety of participants firms can potentially interact with. This could perhaps eventually lead to larger asset managers offering execution services direct to other peer groups (see exhibit 29). However, the increased level of responsibility and accountability in providing best execution to their peers makes this prohibitive for some firms. Similarly, others felt that a highly ranked trading desk that maximises profitability offers an exclusive edge to their investment process, which would be detrimental to the firm if passed to a competitor.

EXHIBIT 29
FUTURE SOURCING OF EXECUTION SERVICES
(ALL PARTICIPANTS)



Source: TABB Group

The expanding role of technology in the provision of best execution will deliver many enhancements to the buy-side dealing desk. Locating liquidity while minimising information leakage and unnecessary risk; together with increased use of data analytics to establish funds flows, trading activity and historical interest will facilitate targeted access to real-time information ahead of deciding when, where or how to trade. Creating this level of access, the buy-side has an opportunity to expand liquidity sources externally while maintaining control of how and when information is released, optimising the opportunity to achieve and ultimately improve best execution.

"The increased level of responsibility in providing other firms with best execution will just make this a non-starter for us"

—Larqe EU Asset Manager

Conclusion

Just as a success in Formula One is dependent on a strong collaborative partnership between the driver, car and a team of experienced mechanics; future successful delivery of best execution will depend on in-depth partnerships focused on continual enhancements to workflow processes as well as performance. Client expectations from the end investor to the institutional portfolio manager are evolving and the provision of best execution will need to follow suit.

Fewer asset managers now hold a larger share of liquidity, often on the same side of the trade. This, together with banks' reductions in their balance sheets, has led to progressive erosion in broker trade facilitation. While sell-side services remain highly valued, greater unbundling of the execution process makes it harder for firms to differentiate in the traditional manner, but potentially offers the greatest opportunity to offer enhanced execution services. As the buy-side struggle in an increasingly elusive hunt for liquidity under rising levels of accountability, establishing the right partnerships to meet regulatory obligations will be key. The ability of the sell-side to understand and interpret their client needs to meet this will be critical.

Yet while regulation is accelerating the need for change, the process of reviewing best execution has already begun. Greater ownership of order flow requires greater responsibility of trading outcomes, irrespective of regulation. Best execution means selecting the relevant strategy, for the order, fund, business or client in hand and being able to stand behind the decision taken. As firms qualify not only what best execution means for them as an organisation and what needs to be put in place to achieve this, they are also establishing how to challenge brokers and react when they believe best execution is not provided. This requires greater use of technology, information and data flows, as well as processes and procedures in a constant analytical feedback loop of marginal gains to improve overall performance.

While this is challenging in equities, the extension of best execution monitoring to other more opaque asset classes such as fixed income will be compounded further still. Best execution can be considered broader than best price for all asset classes, however there are additional costs in the total consideration for fixed income, such as the cost of credit or accrued interest or even counterparty risk which can negatively impact overall execution performance. As more firms employ multi-strategy approaches, the more the provision of accurate data across the execution process is critical. This in turn feeds into a cycle of behavioural change. To establish a clearer picture of the trading activity irrespective of the underlying asset, or even the manner in which it is traded, firms cannot assess the true cost of liquidity from a single bank offering, leading to a greater use of multilateral systems and agency style trading incorporating accurate market data.

While the individual interpretation of best execution may continue to differ according to the participant, the investment strategy, or the time of trade, it will be those firms which focus on building partnerships to demonstrate greater transparency in the execution process, as well as consistently improving their execution performance who will be those who deliver true "best execution" in the future.

About

TABB Group

TABB Group is a financial markets research and strategic advisory firm focused exclusively on capital markets. Founded in 2003 and based on the methodology of first-person knowledge, TABB Group analyses and quantifies the investing value chain, from the fiduciary and investment manager, to the broker, exchange and custodian. Our goal is to help senior business leaders gain a truer understanding of financial markets' issues and trends so they can grow their businesses. TABB Group members are regularly cited in the press and speak at industry conferences. For more information about TABB Group, visit www.tabbgroup.com.

The Author

Rebecca Healey

A recognised thought leader in market structure, regulatory reform and financial trading technology, Rebecca Healey joined TABB Group in March 2011, bringing over 15 years of direct industry experience in e-trading and financial services. Widely quoted in the financial, business and trade media, she has appeared on TV and radio discussing ongoing changes in capital markets for the *Financial Times*, *The Wall Street Journal*, *The Times*, *De Telegraaf*, *Het Financieele Dagblad*, *Il Sole 24 Ore*, *Handelsblatt*, *Finanz und Wirtschaft*, *L'Agefi*, *Le Monde*, *Les Echos*, CNBC TV, BBC TV, BBC Radio, Bloomberg and Reuters, among others. In 2012, Rebecca was invited to provide evidence for the UK House of Lords review into electronic trading and regularly contributes to wider debates on regulatory reform.

Rebecca has held various sales and trading positions with Bankers Trust, Goldman Sachs and Credit Suisse, where as vice president she was instrumental in launching the firm's successful Advanced Execution Services product to hedge funds from its inception in 2002 until 2008. Prior to this, she was the first electronic trader at Credit Suisse to be registered for all electronic European cash equity markets and covered sales trading into Asia and then Europe between 1997 and 2000. More recently, she was based in the Middle East from 2008 to 2010, employed by the British Embassy in Bahrain where she successfully launched the UK Government's financial services strategy and set up the Bahrain Financial Services Roundtable, which remains a key source of information for the UK Government today, especially in relation to Islamic finance.

Rebecca holds a Bachelor of Arts degree in Spanish and Latin American History and Politics from the University of London.

At TABB Group, Rebecca has authored an expanding catalogue of research papers and commentary covering European equities, FX, fixed income, dark pools, TCA, HFT, FTT, market surveillance, market structure and regulatory reform.



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