

FX | ALGO NEWS

Goldman Sachs unveils Visual Structuring analytics tool

Goldman Sachs will soon be launching an innovative new analytics tool which aims to help clients answer certain key questions around their FX algo execution for the first time, including helping to evaluate whether to use risk transfer or if an algo strategy would perform better under the live market conditions. The analytics tool, called Visual Structuring Delta One (VSD1), is the first product of its kind to answer such questions in their entirety, as opposed to existing pre-trade analytics which tend to only address one specific aspect of the problem, says Dr Chris Churchman, Head of Marquee at

Goldman Sachs. "Pre-trade tools tend to resemble the various dials on an old, outdated airplane cockpit rather than the cutting-edge, head up display you would find in a modern fighter jet. We recognised there was a gap in the market for a visual structuring tool which can bring everything together that immediately and visually addresses the question for the client at a glance," Churchman says. Dr Ralf Donner, Head of Marquee Execution Solutions at Goldman Sachs, adds: "Pilot clients have said that the VSD1 tool answers the most fundamental question they need to address each day. It provides a

quantitative justification for execution decisions on the basis of real-time analytics." See page 4.



Dr Chris Churchman

BNP Paribas creates 'Gold Label' partner model for FX algos

BNP Paribas has secured a first-of-its-kind partnership with Lloyds CIB, enabling clients of the bank to access BNP's suite of FX execution algos using a new model that goes beyond traditional white labelling. Under the new fully transparent

partnership, Lloyds is able to offer its clients access to BNP's suite of FX algos and related tools, while in turn BNP is able to grow its market footprint in target regions or clients types. "In the UK corporate market, there are a large number of clients who are interested in using FX algos but may not be a client of BNP. In order to further expand our reach we cultivated our 'Gold Label' strategy, where the end client would know they are using BNP's market leading product but without the need to be onboarded as a client with us directly. By broadening our algo offering through this and future partnerships, we are unlocking our digital tools and solutions to more clients than ever before," says Asif Razaq, Global Head of FX Automated Client Execution at BNP Paribas. See page 12.



Asif Razaq

IN THIS ISSUE

p1: TOP STORIES

The latest industry stories

p3: NEWS FEATURES

More in depth news analysis

p14: INDUSTRY REPORT

FXPA guidance on internalisation

p16: MARKET WATCH

FX algo landscape ripe for innovation

p18: INDUSTRY VIEWS

Customising FX algo execution

p24: ASK A PROVIDER

Meeting the needs of US algo clients

p26: DEQUANTIFICATION

The Peg Clipper algo from NatWest

p28: BUYSIDE INTERVIEW

Fei Xie, Treasury Manager at Amazon

DYNAMIC ALGOS

- Dynamic Algo offering across desktop, web and mobile channels
- Execute NDF Algos
- Additional liquidity venues
- Enhanced internalization through the Citi franchise
- Engineered with next generation market making technology
- Increased client parametrization and controls

STILL INNOVATING

Contact your Digital FX salesperson to learn more



State Street launches NDF algo offering with a difference

While the NDF space continues to grow apace, NDF algo products have often fallen short of client expectations. Mary Leung, Global Head of Client Algos at State Street, shares how its new NDF algo product solves these liquidity challenges to offer clients a uniquely robust way to execute NDF algos for the first time.



Mary Leung

Do you have any new developments or enhancements to the FX algo suite which you would be able to share?

With the enhancement of State Street's electronic foreign exchange Non-Deliverable Forward (NDF) pricing and hedging capabilities, we are pleased to announce our latest venture expanding our algo offering into the NDF space. Initially, we plan to offer NDF algos on the following three Asian currency pairs: Korean Won (KRW), Taiwanese Dollar (TWD) and Indian Rupee (INR). Clients may trade to any outright date, including broken tenors, and our offering will hedge the risk via one month liquidity. If necessary, points can be added on completion of the algo order to the desired tenor.

Our new offering concentrates on improving upon existing NDF algo products and addressing client concerns about those offerings. Some clients feel NDF liquidity pools and the venues supporting NDF liquidity are limited and that NDF algo execution is still developing. Others note many NDF algos function more as smart order routers that sub-optimally sweep

liquidity or place limit orders. The lack of real-time volume data also raises doubts about the reliability of volume-driven strategies such as Volume-Weighted Average Price (VWAP) and Percent of Volume (POV). Our latest offering is designed to address these issues.

How have you tackled the persistent liquidity challenges that exist for certain NDFs?

Internalisation plays a vital role in NDF execution where liquidity is fragile. As our electronic NDF hedging and pricing capabilities have improved, we have seen an uptick in win rates within our asset manager community (currently ranked number one for NDF win rates with asset managers on a large platform). In our new algo offering, we harness this success and provide the same internalisation options that we offer in our deliverable strategies. We are also among the first banks to leverage our peer-to-peer matching technology (Interest Match) in the NDF algo space, including the ability to skew our streaming NDF prices to attract client flow. This is an NDF algo capability that is not yet available in other banks' offerings.

Our extensive onshore presence in many NDF countries allows us to offer extra liquidity that few other providers can match. To illustrate this point, State Street has had a local presence in South Korea for more than two decades supporting global clients to trade KRW onshore. We were the first Registered Foreign Institution (RFI) to participate in the onshore interbank FX market in South Korea in January 2024, and our current status as one of the five leading RFI banks in South Korea gives us a significant edge. This recognition follows a rigorous evaluation

by South Korea's Ministry of Economy and Finance (MOEF), who made the selection based on performance across bidirectional spot FX, quote-based spot FX and FX swap transactions over the past year. With this designation, we are able to tap into the richest sources of onshore liquidity to create a synthetic one-month NDF price that is accessible via our NDF algo offering.

What is the significance of onshore liquidity in KRW?

The onshore market has substantial trading volumes with liquidity comparable to the current NDF markets. We estimate that by creating synthetic NDF liquidity from our onshore sources and proprietary curves, we can access substantially greater KRW NDF liquidity than other providers without onshore market access. This enables us to minimise market impact when executing large algo orders and enhance overall execution quality. The opening of the onshore market also provides extended trading hours, thereby helping our clients access the KRW FX market up until the close of the London market.

Do you support the same algos as deliverables?

Our NDF algo offering will be available on a majority of our FX algo strategies, including our flagship FLOAT (inclusive of the Implementation Shortfall and Percentage of Volume features), Time-Weighted Average Price (TWAP), VWAP and Sweep & Post. As we add more NDF currencies, we will also extend support to our Portfolio Algo. We will also be live on FX Connect, FXALL, BBG and On Behalf Of trading (OBO) and will continue to expand our distribution network to alternative platforms in the coming months.

Goldman Sachs creates 'at a glance' pre-trade analytics tool

Client experience continues to play a significant role in the overall success of algo executions, but in many cases that experience gap often needs to be filled with TCA or pre-trade analytics. Dr Ralf Donner, Head of Marquee Execution Solutions and Dr Chris Churchman, Head of Marquee at Goldman Sachs explain how they developed a paradigm-shifting new analytics tool which allows clients to more effectively make and justify their algo execution decisions to their stakeholders.



Dr Ralf Donner

One of the main challenges that comes with FX algo execution is that clients may have to jump in and suddenly be spot traders, despite not having that degree of familiarity with the market, says Donner. They certainly, in general, would not know what live conditions are like in the spot market or how to translate current conditions into an informed execution decision and very often they will have a choice of execution options, he adds. "They might need to decide whether to opt for an opportunistic or passive algo, or use risk transfer or even sweep the book to fill instantly," Donner says. "The question is, how to choose? There are a wide variety of pre-trade tools which are all attempting to help clients address this question. What we discovered, however, is that in general these dashboards of tools, only address



Dr Chris Churchman

one specific aspect of the problem, but nothing is able to address the question in its entirety."

Donner explains that a traditional pre-trade tool might show individual factors such as market risk, volatility, what live volumes are like versus normal, what the spread is versus usual conditions, whether to execute faster or slower etc. He adds: "This means that clients have lots of little dials and gauges that they need to look at to make their decision. What was not available yet was something which can bring all that data together in a single modern display that immediately and visually addresses this question, so the client can just look and confirm that yes, under these circumstances, it should be an algo, or it should be risk transfer and if it is algo, then this

is likely outcome, and if it is a risk transfer, then this is the outcome - to be able to simply compare those at a glance."

Having recognised there was a need for this level of next gen pre-trade tool, Goldman Sachs has developed its Visual Structuring Delta One (VSD1) tool which it is about to make available to clients. Churchman explains that the inspiration for this new visual structuring tool stemmed from his experience in creating a structuring tool for mainly vanilla FX options structures. "It turns out that there are such incredible similarities between structuring an options trade and choosing a spot execution strategy. It then seemed a natural progression to extend this tool for use from the options world to the Delta One world," he says. "They are both structuring problems with payoff profiles, a dependence on market volatility, and parameters that influence possible payoffs, such as strikes or a limit price."

LIVE MARKET CONDITIONS

Churchman adds that the tool essentially displays the current state of the FX market, as represented by an aggregate view of the order book. He explains: "The graphic then shows what is out there in terms of how far through market the client would need to go in order to fill various sizes, specific to the order that the client intends to execute. The tool



THE INSPIRATION FOR THIS NEW VISUAL STRUCTURING TOOL STEMMED FROM THE CREATION OF A TOOL MAINLY FOR VANILLA FX OPTIONS. THERE ARE SIGNIFICANT SIMILARITIES BETWEEN STRUCTURING AN OPTIONS TRADE AND CHOOSING A SPOT EXECUTION STRATEGY.

then displays what is going on in the market right now, where the client would have to execute the order if they wanted to execute quickly."

Algos, however, have more of an uncertainty around the execution outcome, Churchman says. "We needed to represent that uncertainty using a volatility cone that goes into the future, showing the expected market risk that the client is taking on an algo execution - expected because of market moves and the variable duration of opportunistic algos. We are then comparing a band of possible results with the certainty of a risk or an estimated sweep execution. The more the distribution of algo outcomes lies beyond risk transfer, the more this favours risk transfer, and vice versa."

This volatility cone is generated using a realised form of volatility which essentially looks at recent spot returns to produce the cone. Live conditions have a direct impact on the volatility projection. Donner notes that as the entire tool is live this can change depending on current market conditions. "This is a very fundamental difference with existing

pre-trade tools, many of which have approximately the same value as receiving yesterday's weather forecast when planning a journey today. What you actually want is something that would give you live information now to be able to plan whatever it is that you're doing. And that is essentially what this VSD1 tool achieves. It is not easy to pipe live conditions on market liquidity to clients, and so very few tools do so effectively."

STREAM-LINED DECISION MAKING

The reason that this resonates with clients is because of the growing requirement to demonstrate best execution to their stakeholders, which can be harder to achieve when executing with algos, explains Churchman. "This tool now allows them to easily show the justification for using an algo to their client, or to portfolio managers or even for compliance purposes," he adds. "It can also be used to gain experience with a product and be able to plan for the future. It takes time to build an understanding of how various algos perform, such as the typical algo duration for a certain currency pair. If a PM were to ask an execution

desk how long it would take to execute their orders, this would have previously required the desk to remember how long that size in that currency pair at that time of day usually takes with a given algo, and then whether current conditions might hasten or slow execution relative to normal. VSD1 provides the information directly."

According to Donner, the new tool will initially be available for the most popular algo strategies offered by Goldman Sachs, namely its flagship Dynamic Hybrid algo and the Pegged algo. It can however be used with other strategies, he notes, such as Goldman's TWAPs which are more customisable than many other TWAPs on the market. "In particular, we allow clients to specify how each clip of the TWAPs is executed, whether that clip should be very passive in nature, or whether it should be hybrid in nature," he explains. "Because a TWAP can be chosen to be Pegged or Dynamic, a logical way to determine a TWAP end time would be to test the estimated duration for the same size with a standalone Pegged or Dynamic algo... So it does have additional application to scheduled algo types as well".

Bloomberg FXGO records significant growth in global FX algo use

Bloomberg FXGO continues to record strong year-on-year volume growth in FX algo use in both spot and NDF algos across all client segments. Oleg Shevelenko, FXGO Product Manager at Bloomberg, explains why FXGO's commitment to investment and innovation continue to ensure the platform is the trusted choice for clients globally.



Oleg Shevelenko

To further strengthen this capability, we added five regional banks to our liquidity provider network.

Is this increase by client segment, order size or for specific regions?

We observed increased algorithmic volumes across all client segments, with hedge funds and asset managers contributing the largest share of growth. Regionally, our APAC client community significantly outpaced other regions in adoption and usage. Overall, our algo offering was utilized by clients in more than 50 countries, highlighting its global relevance and the growing demand for sophisticated execution tools across diverse markets.

What increase in demand for FX algos are you seeing on FXGO?

We have observed over 40% year-to-date growth in algorithmic trading volume on FXGO, reflecting a strong uptick in client engagement. This increase has been equally driven by two key factors: increased usage by our existing client community and adoption of algorithmic strategies by new clients joining the platform. In addition to the rising interest in spot FX algos, we are also seeing a notable expansion in the use of algos in non-spot instruments, particularly non-deliverable forwards (NDFs). This trend underscores the growing breadth and confidence in algorithmic execution across a broader range of FX instruments. With algorithmic and order-based FXGO execution spanning over 190 currency pairs, access to deep regional liquidity remains essential to client success.

In what ways are you developing the offering to meet the changing requirements of clients?

FXGO continues to make strategic investments in its algorithmic execution offering, reinforcing its commitment to delivering comprehensive and adaptive trading solutions. Recent enhancements include our pre-trade order optimization toolkit, which was developed to help clients reduce unnecessary spot exposure by intelligently offsetting flows across different settlement dates. Instrument coverage has also been broadened significantly, moving beyond traditional spot and non-deliverable forwards to now supporting trading in precious metals and FX swaps - enabling clients to deploy algo strategies across a wider range of asset types.

To ensure greater flexibility and depth of execution, FXGO has integrated new regional liquidity providers, strengthening access to localized liquidity pools and improving fill quality across diverse market conditions. Additionally, the platform has advanced its proprietary analytics capabilities, providing clients with richer insights and data-driven guidance to support more precise and efficient execution decisions.

What new tools or services have you developed to meet client's execution requirements?

To further enhance client workflow and execution efficiency, we developed a bulk routing tool that enables clients to seamlessly route multiple orders - whether algorithmic, resting, or benchmark - simultaneously. This functionality is particularly valuable when trading baskets of orders, significantly streamlining the order management process and reducing manual effort. In addition, we introduced a new multi-tenor spot exposure management tool, which allows clients to execute spot trades across multiple tenors in a consolidated workflow and subsequently roll the resulting spot exposure forward to their respective settlement dates. This innovation supports more flexible execution strategies and precise management of forward-dated cash flows, helping clients optimize both operational efficiency and market risk management.

Date/Time (Local)	Status	Ccy Pair	Side	OrderQty	Ccy	LimitPx	StopPx	Expiry	Type	Ctrpty	FilledQty	Avg Spot
06/19/2015 10:30:33	Working	EUR/USD	Buy	1.00M	EUR	1.13000			GFD	MULTI		
06/19/2015 10:29:48	Working	GBP/USD	Sell	1.00M	GBP	1.5900			GFD	MULTI		
06/19/2015 10:29:19	Working	USD/JPY	Buy	1.00M	USD	123.00			GFD	MULTI		
06/19/2015 10:27:42	Filled	EUR/USD	Buy	1.00M	EUR	1.13170			GFD	BGDM	1.00M	1.1317
06/19/2015 10:26:43	Rejected	EUR/USD	Buy	1.00M	EUR	1.13010			GFD	MULTI		
06/19/2015 10:26:08	Canceled	EUR/USD	Buy	2.00M	EUR		1.1455		GTC	BGSP	0.00	
06/19/2015 10:25:16	Filled	EUR/USD	Buy	1.00M	EUR	1.13			GTC	BGFF	1.00M	1.130000
06/19/2015 10:23:53	Filled	GBP/USD	Sell	3.00M	GBP				GTC	BGNY	3.00M	1.586200
06/19/2015 10:23:53	Pt Fill	GBP/USD	Buy	15.00M	GBP				GTC	BGNY	11.00k	1.586009

Algorithmic and order-based FXGO execution spans over 190 currency pairs

How has the demand for FX algo analytics evolved over the past year?

As each algorithmic provider offers a broad suite of strategies and strategy parameters, clients face increasing complexity in evaluating and selecting the most appropriate tools for their trading objectives. In this environment, there is a growing need for intelligent, real-time support to help clients navigate this landscape and make more informed decisions both before and during order execution.

Bloomberg's Algo Analytics hosting service directly addresses this need by enabling algo providers to host their pre-trade and live order analytics directly within the FXGO execution workflow,

offering clients a more seamless and context-rich trading experience. Currently, seven algo providers have integrated their analytics through this service and three more are in progress, giving their clients access to provider-specific insights at the point of execution.

At the same time, we continue to observe strong demand for provider-independent analytics, which has driven the full integration of Bloomberg's cross-asset TCA solution (BTCA) with FXGO. This integration empowers clients to assess algo execution quality against a range of Bloomberg benchmarks and market data sources, supporting more transparent, data-driven decisions in both provider selection and strategy evaluation.

In addition, we recently launched the TCA<GO> function for FX, which provides a cost-based comparison between risk transfer and algorithmic execution, taking into account prevailing market conditions and various algorithmic execution styles. This tool equips clients with a more data-driven framework to evaluate execution choices, optimize trading outcomes, and enhance transparency in the decision-making process.

Do you have any new offerings or developments in the pipeline which you would be able to share?

FXGO is committed to continued investment and innovation to remain at the forefront of the industry's ongoing transformation toward more advanced algorithmic execution. A key pillar of this strategy involves deepening collaboration with our existing algo providers while actively onboarding new partners to broaden our instrument coverage, particularly in emerging markets, non-deliverable forwards (NDFs), precious metals, and derivatives.

These efforts aim to ensure that clients have access to an ever-wider array of tailored execution strategies across diverse asset classes. Looking ahead, we are equally focused on delivering the next generation of pre-trade decision support tools, which will tightly integrate composite pricing, real-time news, analytics, and cost modelling into clients' trading workflows. This integrated approach is designed to help clients optimize execution quality, enhance automation, and achieve greater operational efficiency across the entire trading lifecycle.



We continue to observe strong demand for provider-independent analytics

Citi reports robust volume growth for FX algo product

Citi's commitment to delivering a market-leading suite of FX algos is reflected in yet another year of notable strong uptake among clients, reflecting the benefit of ongoing investment in enhancing the suite. James McGuigan, Head of Algo Product at Citi, shares key updates across the board, including expanding NDF liquidity sources and a continued focusing on internalisation as a means to ensuring algo execution quality.



James McGuigan

Can you provide an update on the progress of Citi's FX Algo product?

We are pleased to report substantial progress across several key areas of our FX algorithmic trading product, reflecting the diligent efforts of our dedicated team.

What can you tell us about the volume growth you have experienced?

We've seen significant volume growth this year. Continuing our growth from last year, Dynamic Algo volumes are up over 40%. Our Arrival strategy remains increasingly popular with clients, as do some of our more aggressive algos, especially when utilised in conjunction with a take profit/stop loss level. Furthermore, emerging markets have demonstrated particularly strong

growth, and within that segment, Non-Deliverable Forwards (NDFs) are increasingly important to clients leveraging algorithmic execution.

What is the scope of your NDF offering within the algo suite?

We maintain a comprehensive NDF algo offering, with all algorithms across our suite supporting Non-Deliverable Forwards. When we set out to build the new suite, we planned to support NDFs natively, so they are very well catered for in Dynamic Algos. We have been actively expanding our NDF liquidity sources, leveraging both external providers and, critically, our substantial internal franchise flows, which provides a significant competitive advantage in this evolving market segment.

What improvements have been made to execution quality?

Our commitment to superior execution quality remains a core focus. We have continuously refined the algorithm's core capabilities, such as how and when it accesses lower impact liquidity, leading to improved market impact and slippage metrics. Additionally, for our Arrival (opportunistic) and Peg (Float) algorithms, our average execution speeds have increased in parallel to

these performance improvements. This dedication to execution excellence has been a key driver in our volume growth; with the availability of robust performance data from Citi and independent TCA providers, clients are able to review evidence of the improvements and allocate flows to our algos with confidence. As ever, internalisation remains paramount; clients consistently express a desire for maximum access to our franchise liquidity. Therefore, we are constantly working on how we can provide this more effectively, while maintaining our commitment to true internalisation. A key differentiator is how we leverage Citi's unique position, paying particular attention to how our algos benefit from Citi's proprietary liquidity and franchise flows, leading to improved execution outcomes for our clients.

How are you engaging with clients regarding the algo product?

We have intensified our client engagement initiatives, actively soliciting and incorporating feedback from key stakeholders and pilot users. This iterative approach ensures the product's evolution aligns directly with client requirements and delivers incremental, tangible value to them.

What are the next steps for Citi's FX algo product?

The momentum of our product is very positive, and we have more to come. Driven by client feedback, we have several important areas currently under development around TCA (both pre and live), liquidity curation and customisation, and anticipate bringing these to market in the coming months.



Citi's commitment to delivering a market-leading suite of FX algos is reflected in yet another year of notable strong uptake among clients, reflecting the benefit of ongoing investment in enhancing the suite. James McGuigan, Head of Algo Product at Citi, shares key updates across the board, including expanding NDF liquidity sources and a continued focusing on internalisation as a means to ensuring algo execution quality.



Your eFX ALGO partner



Highly customisable Algo Strategies to suit your requirements



Comprehensive market liquidity access combined with CACIB internalisation



Fully fledged data set and analytics, including BestX and now Tradefeedr



A special partnership with XTX to add alpha to your trading style: XTX Execution Algo

Contact your dedicated FX Sales to find out more

www.ca-cib.com



Lloyds accelerates entry to FX algo space with BNP partnership

Sarika Jajoo, Head of Electronic Distribution at Lloyds Bank shares the unique benefits the strategic partnership with BNP Paribas delivers to clients seeking to utilise FX algos.



Sarika Jajoo

What shift in client demand have you been seeing for FX execution algos and what is driving this change?

We are seeing a clear and growing shift in how clients approach FX execution. Corporate and institutional clients are becoming more sophisticated, cost-conscious and data-driven in their approach to managing large exposures. Increasingly, they are seeking tools that offer greater transparency, analytics and precision – especially for large size or time-sensitive trades.

This reflects a broader evolution in expectations. Many clients are moving beyond relying solely on traditional risk transfer models, seeking greater execution flexibility and control – specifically, the ability to dynamically adjust between passive and aggressive strategies as market conditions evolve.

FX execution algorithms are purpose-built for this. They help clients manage

market risk by slicing orders over time, randomising execution patterns, and routing interest across multiple curated liquidity venues to secure the best available price. This reduces market footprint and lowers execution costs – making algos a smart, strategic tool in today's FX execution toolkit.

While the market has been evolving this way for some time, several converging forces are now accelerating adoption:

- Persistent volatility and fragmented liquidity are making adaptive algo strategies valuable in minimising signalling risk.
- Heightened focus on best-execution is driving demand for auditable, benchmarked performance, down to the millisecond.
- Ongoing digital transformation across treasury and asset management is embedding automation and data-led decision-making into execution workflows.

Why did you select BNP Paribas as your partner to be able to offer the FX algo suite and related tools to your client base?

Lloyds has seen sustained growth in FX volumes over recent years, with strong year-on-year momentum and rising rankings on multi-dealer platforms. This success is underpinned by our client-first service, competitive pricing and continued investment in electronic capabilities. Adding client algos was a natural next step to enhance our electronic FX distribution.

To deliver a credible solution to our

clients at pace, we decided to take a pragmatic approach of partnering with a proven leader in the space.

BNP Paribas stood out for their multi-year track record of market-leading algos and their commitment to co-develop a differentiated solution with us. This isn't a typical white-label arrangement. Together, we formed a 'Gold Label' alliance – a transparent, disclosed partnership built on exclusivity, operational clarity and high-touch support.

Crucially, full client anonymity is preserved throughout – BNP has no visibility into the identity of the underlying Lloyds client.

Through this alliance, we leverage BNP's full algo tech stack – including strategies, smart order routing, FIX connectivity, TCA capability and more – delivering immediate value to our clients.

What makes this partnership unique and in what ways does that benefit both BNP and Lloyds?

This is the first time that two leading banks have partnered so openly in the FX algo space. What makes it unique is the transparency and exclusivity of the arrangement. Clients know they are accessing proven algo technology, directly and seamlessly integrated into Lloyds' FX workflow.

For Lloyds, it is a leapfrog moment – accelerating our entry into a space others have spent years developing. We have launched a scalable, future-ready solution that complements our broader

FX strategy and deepens client relationships, unlocking new conversations around risk management.

For BNP, the partnership expands their algo reach into the Lloyds' client franchise – flow they might not otherwise access directly, combining a strong FX proposition with rich algo technology and expertise to deliver a best-in-class solution to a broader client base.

Which client segments are keen to utilise FX algos?

We are seeing strong interest across our corporate and institutional client base.

Large corporates are using algos for M&A flows, dividend payments, and asset disposals – where discretion and cost control are critical.

Asset managers and pension funds are deploying algos for buy-backs and fund redemptions, valuing the ability to benchmark executions and maintain anonymity.

Insurance firms and hedge funds are exploring algos for portfolio rebalancing and tactical execution.

Across all client segments, the key is tailoring the service to each client's execution goals. Our FX sales teams are equipped with training, collateral, and real-time monitoring tools to support clients throughout the algo execution process. This consultative approach is helping drive adoption and long-term value.

What response have you had from clients to the move?

The client response has been overwhelmingly positive. We are seeing strong interest and are actively onboarding clients in the UK and US. Our first algo trades have been executed, with client feedback highlighting the smooth, seamless experience.

Clients appreciate the flexibility of the service, the built-in transparency, and access to three award-winning algo strategies – Chameleon, Iguana and Viper – each designed to meet distinct execution objectives.

Expanding our FX services – while maintaining full client anonymity and alignment with operational expectations – has been a differentiator that has resonated strongly with our client base.

Importantly, clients see this as a win-win. Instead of attempting to re-invent the wheel, Lloyds has delivered a turn-key algo solution through a market leading strategic partnership.

We are also seeing great traction on social media and in the press, adding further momentum to the launch.



Coming Soon

The e-Forex and FXAlgoNews team are partnering with the ACI Financial Markets Association to publish a unique handbook.



This will provide market participants with a directory of products and services from leading e-FX providers and an overview of important developments including:

Currency market developments

- Regulatory harmonisation and increasing systematic oversight
- Central Bank Digital Currencies: From concept to real-world application
- Growing institutional engagement with Tokenisation, Stablecoins & Crypto
- More attention becomes focused on the benefits of FX Clearing

Execution & trade lifecycle transformation

- The arrival of hybrid models of execution utilising mixed OTC/Listed venues
- The growing interest in FX-as-a-Service models
- Ongoing post trade FX initiatives and the move towards T+0 settlement
- The open road ahead for FX algorithmic execution

Emerging fintech solutions

- Big Data applications in FX increasingly make their presence felt
- DLT and Blockchain-based FX comes of age
- Innovation in cross border payment mechanisms gathers pace
- Product development of customer, liquidity and execution analytics

What's on the horizon

- Gauging the transformative potential of AI in FX
- Mapping the growth of Decentralized Finance (DeFi)
- Programmable finance and its growing relevance in FX
- No code algo builders and bot marketplaces for retail investors

For more information about the handbook please contact: charles.jago@e-forex.net

BNP Paribas expands FX algo footprint with strategic partnerships

The recent agreement between Lloyds CIB and BNP Paribas may have marked a watershed moment for not only the FX algo market, but also potentially for the wider FX industry as a whole. Asif Razaq, Global Head of FX Automated Client Execution at BNP Paribas, explains the benefits to both partner banks of this new form of transparent offering and why BNP is looking to replicate its success in additional target markets.



Asif Razaq

While white label agreements tend not to mention which bank has supplied the technology, Lloyds' clients are fully aware that it is BNP's suite of execution algos that they are accessing – one of the first times this has happened with an FX product in general, not just in the world of FX algos. To offer FX algos to its largely corporate UK client base for the first time, Lloyds evaluated whether it was more beneficial to build, buy or to partner with BNP to create its offering, says Razaq.

"Building an offering does offer flexibility and control, but the downside of building an algo suite is that this comes at a very significant cost," Razaq adds. "Also, since I started building this business 12 years ago, fees have contracted significantly. The return on investment is a difficult one to realise in this landscape. The other issue for banks just starting out in the algo space is that it is now a long road to catch up to a leading provider such as BNP."

Razaq notes that there are also drawbacks to buying an 'off the shelf' product from an independent technology provider as many are trying to sell the same product to other banks as well, making it difficult to differentiate the product to clients.

"We also believe that a bank-based solution, as opposed to a technology company-based solution, is significantly different," Razaq adds. "Banks can bring in their trading expertise when creating the technology products, as well as franchise benefits such as the use of internalisation. That is something you cannot achieve with an off-the-shelf product. So the perfect solution would be to partner with an existing tier one algo provider."

In the past, banks were of the opinion that there was no reason to sell their product to a competitor, Razaq notes. He explains: "At BNP we have decided to take a different stance. We have done a phenomenal job having built a cutting-edge product that now has one of the largest market shares of the algo space. But we are now at the point where in order to grow our global footprint even further, we need to start targeting clients that are outside the BNP universe."

GOLD LABEL AGREEMENTS

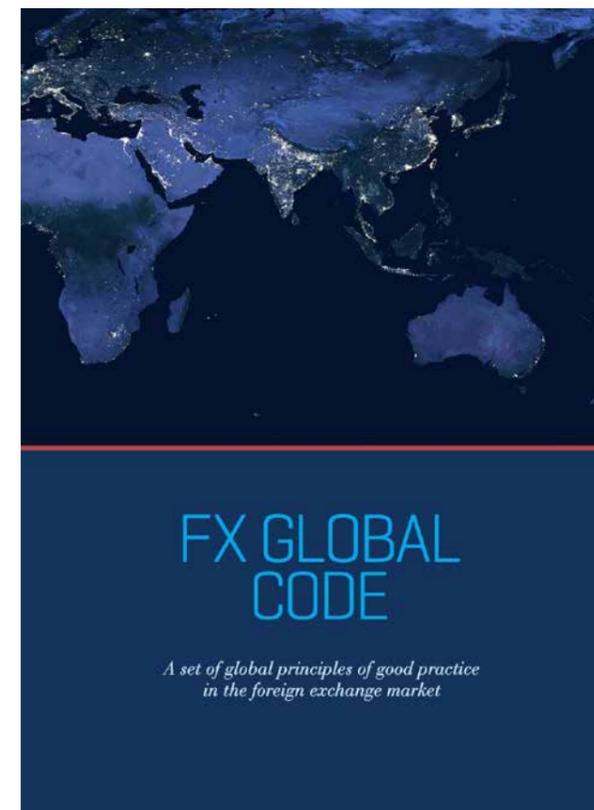
The UK corporate market is one area where BNP was keen to expand its footprint and a sector which the Lloyds franchise is especially strong. Rather than trying to get direct access to that client, which can prove a complicated process,

Razaq explains that BNP is instead selecting one partner bank in that region which has access to these clients.

"These 'Gold Label' agreements are a way to grow our market share indirectly through our regional partners, where the end client is comfortable knowing they are using a market leading product and then they benefit from all of the utilities we have developed for our direct clients," he adds. "We are also able to avoid using key bank resources such as balance sheet, opening up credit lines or completing a KYC on that client to onboard them, which all comes at a big cost. We can avoid all of that and utilise our partner banks existing investment, already having all the balance sheet and KYC from on boarding that client, while we still see the flow that client indirectly via by our partners."



Gold Label agreements as opposed to White Label let the market know that this is a solution that ensures full transparency



Algos are now coming under more stringent regulation, having been included in the FX Global Code of Conduct

ANONYMOUS CLIENT FLOW

In addition, Razaq highlights that this client flow is always anonymous, with BNP unable to see the end client's name on this part of this agreement. "This is an effective way for Lloyds to protect their client base and still provide their clients with a best-in-class product," he adds. Furthermore, algos are now coming under more stringent regulation, having been included in the FX Global Code of Conduct. This means that new algo providers must ensure that transparency is provided to the end client around how the algorithms work. "How you are set up within the bank and who sees that algo flow is increasingly being included in new guidance coming from regulators as well, in addition to making sure that banks are taking responsibility for the algorithms with circuit breakers, kill switches etc. There is now a lot of red tape that comes with providing an algo service to clients and providing an algo to trade on markets."

Essentially, the new arrangement is termed 'Gold Label' as opposed to White Label to let the market know that this is a solution that ensures full transparency, Razaq says. "It is not hiding the fact that there is another bank or technology provider behind the solution. We believe that being transparent adds a certain level of trust with the end client," he adds.

"BNP's Gold Label also comes with an exclusivity clause attached to it. We plan to only provide one bank in each target region with a Gold Label agreement. For the UK, we partnered with Lloyds - and we are currently talking to other banks in their respective regions to give them that same level of exclusivity under this new arrangement."

ALGODEFI25 Workshop



This workshop will take place October 16-17th, 2025 at Politecnico di Milano, Aula Rogers, Via Bonardi 3, Leonardo Campus, Building 11, Milan, Italy. The conference is organized with the support of Intesa Sanpaolo, IMI Corporate & Investment Banking Division and IASON Ltd and under the auspices of Assiom Forex. Attendance to the conference is free but registration is mandatory.

mate.polimi.it/events/ALGODEFI25/

The FX market in 2025: Future-proofing FX

The second research report this year from LSEG FX is being released in September. 400 FX professionals globally were asked to what extent certain innovations or next-gen solutions were going to be a priority within their organisation in 2025 with 45% of respondents overall citing Algorithmic / high frequency trading being one of them. Scan this QR code to request the full report as soon as it's published:



FXPA shines light on FX internalisation in algos

Internalisation is now very much an established feature of the FX algo market, yet buy-side clients may often be unaware of the significant differences in how internalisation is currently being defined and applied by various algo providers. In a bid to increase transparency and best practise in the industry, the Foreign Exchange Professionals Association (FXPA) has published new guidance around the various flavours of internalisation and the implications these differences might have on algo execution.

The paper, FXPA Guidance: Definitions and Best Practices for FX Internalisation in Algo Execution, is the result of a collaborative effort which was led by Richard Turner, Senior Trader at Insight Investment and Chair of FXPA's Buy Side Working Group, who led the development of the paper. "Internalisation plays a critical role in today's FX landscape, but without clear definitions and standards, its application can raise concerns around transparency and execution quality," he says. "This guidance offers a practical framework that supports market integrity while enabling continued innovation and efficiency in FX trading."



Rich Turner

Insight Investment was a very early adopter of bank algos, Turner adds, but is also very aware of the risk of information leakage, making the internalisation offering from banks particularly appealing to the firm. "The caveat with internalisation is that there is no standard industry definition of what this involves. For one bank it may mean one thing, to another bank it may mean something else entirely," he says. "Internalisation is great, per se, if it is literally me and another person shaking hands and moving on. But what we are increasingly noticing is that some types of internalisation can result in information leakage to the market. That is not internalisation in its true form, but not every user of FX algos is aware of the difference."

STANDARDISED DEFINITIONS

While internalisation has emerged as a key mechanism by which liquidity providers manage risk and offer efficient execution, the paper notes that internalisation practices must be transparent and clearly defined to avoid issues of information leakage, market distortion, or execution bias. Turner explains that when looking at the TCA for algo executions, some counterparty banks do offer more

transparency around the type of internalisation used, but not all offer this level of detail. "There is a question around the level of disclosure and transparency currently available to algo users," he adds. "There is no one standard way of disclosing this level of detail, if it is disclosed at all. There are various reasons for this, often it is just something that clients may not be asking the banks for in the first place, but for buy-side firms it is increasingly important to protect our clients' interests, and we need this level of disclosure to help us with that."

As a result, the guidance urges liquidity providers to disclose the venue or mechanism used to internalise trades. Specifically:

- Trade venue identification should be clearly labelled in post-trade reporting;
- If internalisation is used, clients must be informed as to whether this represents offsetting client algo flow or commercial LP activity; and
- Full timestamping and audit trails are recommended to ensure execution integrity.

Internalisation Type A – Client-to-Client Neutrality

The paper outlines two definitions of internalisation when used in algo execution: 'client-to-client neutrality' and 'LP commercial flow offset'. Under the first model, client A's algo order and client B's algo order transact bilaterally via an LP and the LP acts as a non-influencing intermediary. According to the FXPA, the key principles under this model are:

- The LP does not use information from Client A or B's trade to influence pricing or other market flows.
- Trades are executed under firm liquidity conditions, with disclosed

full amounts, where possible, or through the life of the order (e.g. schedule algos).

- No use of 'Last Look' is applied.
- Pricing and execution are not skewed in anticipation of or response to market events.

According to the FXPA guidance, this model represents a "clean internalisation flow" and prioritises market neutrality, anonymity, and transparency.

Internalisation Type B - LP commercial flow offset

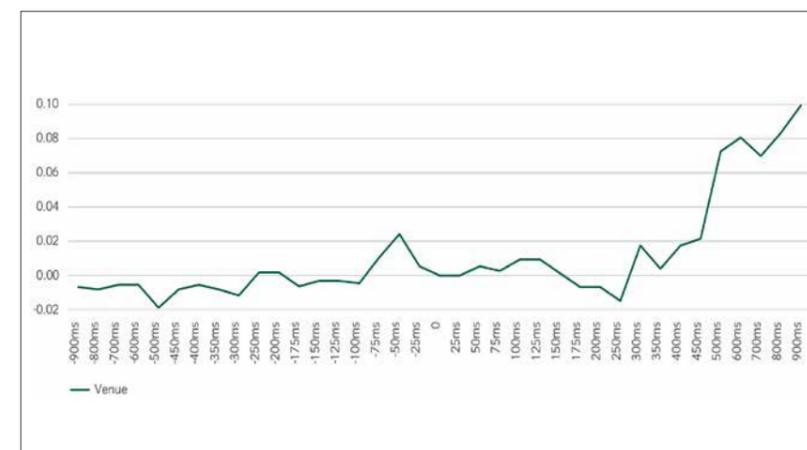
Under the second model of internalisation, LP commercial flow offset, client trades are offset against the LP's commercial or risk management flows, which may include:

- The LP needing to trade opposite to a client due to a natural position existing within its market making desk or pre-existing commercial flow.
- Delta hedging or other derivative-related flows (e.g., options).
- Correlated product execution to manage portfolio or market exposure.
- The LP's Principal stream is best price at time of execution.
- LP skewing prices to match with other client interest.

According to the guidance, the LP may skew prices in response to internal positions and algo interest but must "ensure such information is not leaked or used to influence client pricing beyond the bilateral transaction". The paper notes that bilateral competition, for example in RFQ settings, should "not result in price deterioration or cross-venue information dissemination".

In turn, the guidance outlines certain common fills that should not be labelled as internalisation, including matching client algo flow with another LP's disclosed streaming price (whether skewed or unskewed) and mid-book fills, which refer to trade executions that occur at the midpoint between the bid and ask prices in an order book.

For voice trades, RFQ, RFS and algorithmic executions, the guidance



Reval / decay curve in ms

Source: Insight Investment

goes on to recommend the following best practices to ensure execution quality and data integrity:

- Child order fills should be timestamped, with records maintained for audit and post-trade analysis.
- Execution quality should be assessed using price decay or slippage analysis over the period of execution - for example, leakage or impact may be measured by comparing the arrival price vs. the volume-weighted average execution price over the trade window. See the graph above.
- Both user and L.P. can utilise data to improve execution outcome over time supporting the relationship model. All users should develop nuanced methodology to assess performance.

IMPROVING MARKET INTEGRITY

The guidance notes that both user and LP can utilise data to improve execution outcome over time supporting the relationship model, while all users should develop nuanced methodology to assess performance.

The paper outlines five key recommendations for the market as follows:

- 1. Standardise Definitions:** FX market participants should adopt the FXPA's definitions of Internalisation A and B to promote clarity.
- 2. Enhance Trade Disclosure:** All liquidity providers must disclose internalisation practices to clients at or before execution.

3. Implement Post-Trade Analysis: LPs and clients should collaborate on post-trade reviews, including slippage, latency, and information leakage assessments.

4. Preserve Client Confidentiality: Skewed pricing or bilateral executions should not result in the dissemination of sensitive client order information.

5. Support Auditability: Full timestamping and record-keeping of execution data should be implemented to enable independent verification and compliance review.

The guidance concludes that internalisation remains a powerful tool in FX markets when applied transparently and fairly. "By clearly distinguishing between types of internalised liquidity and enforcing robust execution practices, the industry can promote confidence, reduce information asymmetry, and align with the highest standards of market integrity," the paper adds. "The FXPA encourages all market participants – liquidity providers, venues, and asset managers – to adopt these definitions and practices to foster a more efficient and transparent FX ecosystem."

According to Turner, FX algo clients can also play a part by asking more questions about the type of internalisation being offered and to challenge algo providers to disclose more detail about how they offer internalisation. "When algo providers can show accurately what internalisation means for them, that is in itself a strong franchise selling point," he adds.



How the growth of FX algo trading offers room for innovation

By Matt O'Hara, CEO of Americas at 360T



Matt O'Hara

Matt O'Hara, CEO of 360T Americas, looks at the FX algo landscape and argues that it is a growing marketplace still ripe for innovation.

When we talk to FX market participants in the Americas algo trading is a topic

that frequently comes up, even though — relatively speaking — the adoption of these tools is not that widespread. Estimates of how much FX trading globally occurs via algos vary widely, but perhaps the last authoritative one came from the Bank of International Settlements (BIS) back in 2020 in a report which estimated that between 10- 20% of the Spot market (or \$197bn-\$396bn in daily notional volume) is executed via algos.

I am confident that this figure has risen in the subsequent years, an assertion which is backed up by multiple industry reports and, of course, the increase in algo trading that we've observed across 360T over this period. We also have access to more recent data on this topic. In our annual global client survey last year, 24% of corporate treasurers, 41% of banks and 37% of institutional clients that responded indicated that they currently use FX algos. Interestingly, these numbers jump up significantly when

you segment just the Americas survey respondents, with 31% of treasurers, 62% of banks and 50% of institutional clients indicating that they use FX algos.

CHARTING ALGO GROWTH

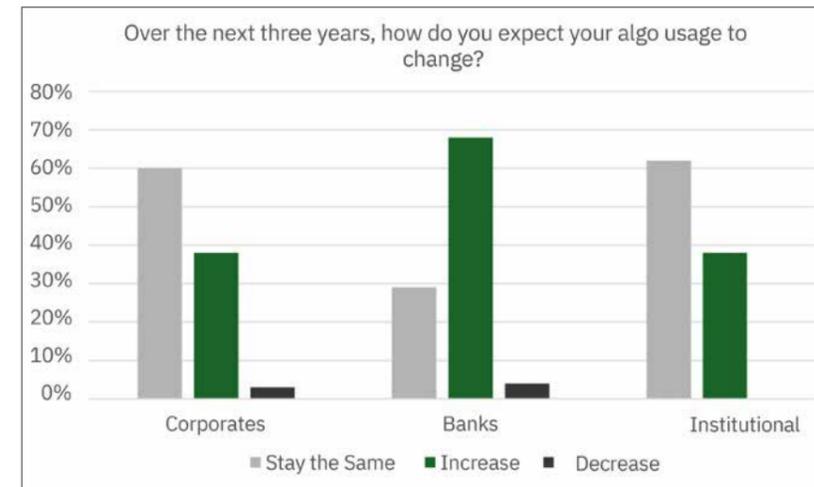
There are many reasons why FX market participants are increasingly turning to algos to execute their transactions. These include:

- Minimising market impact when trading
- Reducing execution costs by not paying a risk transfer fee
- A desire to increase trader productivity by automating flows
- Reducing operational risks by eliminating manual processes
- Liquidity optimisation in a fragmented marketplace

As the benefits of algo usage become more widely understood, and as a broader swathe of FX market participants become comfortable using these tools, we expect their adoption to expand across all client segments.

This expectation is supported by the results of our client survey, where in the Americas 45% of respondents said that they expect their algo usage to increase over the next three years, 52% expect it to remain the same, and just 3% said that they expect it to decrease.

A more granular breakdown of the data across different client types is revealing, and generally aligns with existing algo usage. Banks overwhelmingly expect to use more algos in the coming years, while institutional firms and corporate treasurers, though slightly more cautious, are still clearly moving toward greater adoption of these tools.



Source: 360T Client Survey 2024

INDEPENDENT THINKING

If algos are likely to become even more prominent in the FX market, as we expect, it is worth considering what innovations or trends are likely to emerge in this space over the coming years.

One area where we think there is potential for growth is in the provision of algos by independent technology experts, something that is already widespread in other asset classes, such as Equities and Futures. Independent algo providers have flourished in other asset classes, in part, because they do not have a principal trading or market making business and therefore there can be no perceived conflicts of interest about how or where their algos are deployed.

Another reason for their success is that building and maintaining a suite of market- leading algos requires significant investment and expertise, and as specialists these providers can dedicate all of their resources, focus and domain-knowledge into doing exactly this.

Of course, there are challenges for such specialist algo providers too. Independent fintech firms always face questions about their longevity, funding and ability to scale — especially from larger organisations who tend to take a longer-term view on technology partnerships and implementations.

Questions may also naturally arise about these providers' ability to access high-

quality FX market data at scale, and there may be potential concerns about their proven track record.

BUYSIDE INTEREST

However, we do not believe that these challenges are insurmountable, and it seems that the broader FX industry does not either.

At the TradeTech FX USA conference in 2024, of which 360T was a sponsor, polling conducted on the buy-side focused "Innovation Day" revealed that most attendees — 78% in total — would consider using independent FX algos.

We acted on this client demand, announcing at the same conference earlier this year a partnership with Quantitative Brokers (QB), a specialist independent provider of algos and analytics, that will make its newly launched suite of FX-optimised algos available via 360T.

We believe that QB is an excellent partner to address this gap in the market precisely because it addresses the previously mentioned challenges. As a sister company within Deutsche Börse Group, a large, publicly traded company, QB has a long-term sustainable business model in place and the means to scale globally.

In addition, it has a proven track record as a best-in-class algo provider across the other asset classes that it operates in, and established relationships with many market participants who also already trade FX.

PART OF A GROWING PIE

It is worth emphasising that we see the potential for the emergence of independent FX algos as being clearly complimentary to existing bank offerings.

Some banks have invested significantly in developing their FX algos, many of which are available today via 360T where they can be deployed against carefully curated pools of liquidity from many different providers, and we think that the adoption of these will continue to grow.

But there is also the potential for the usage of independent algos to also grow alongside them as an additional tool available to market participants. A useful analogy here might be 3rd party transaction cost analysis (TCA), which has not reduced the value of, or need for, bank- provided analytics, but has become important for buy-side firms looking to demonstrate best execution.

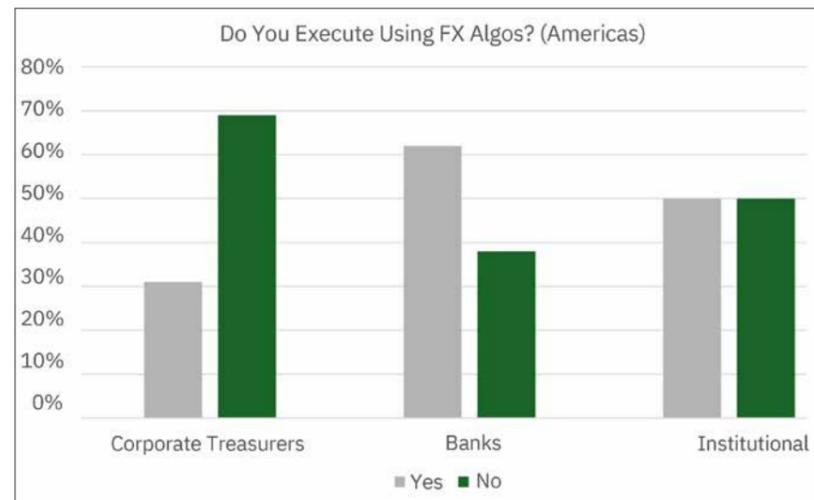
On the flipside, there are some banks who perhaps do not have access to the resources and expertise necessary to build and maintain a market-leading FX algo offering, but still recognise the need to offer one in order to continue growing their franchise.

Where white labelling a suite of algo products from a competitor in the marketplace could prove challenging, leveraging tools that are developed by an independent specialist provider could be a highly beneficial solution.

SUPPORTING INNOVATION

From 360T's perspective, we are excited to see what the next stage in the evolution of algo trading will look like, and will always strive to offer market participants access to the broadest set of high-quality FX algos available. Doing this involves partnering closely with firms across the FX industry to understand their objectives and desired outcomes when using these tools so that we can both react to, and anticipate, their changing demands.

Innovation has always been central to 360T's DNA, so it is only natural that we will look to support new and exciting developments in algo trading as it continues to occupy an ever- larger part of the overall marketplace.



Source: 360T Client Survey 2024



Tailored FX execution algo trading solutions:

Catering for more bespoke client requirements.



Image by Shutterstock

The variety of desired execution outcomes from utilising FX algos can be as varied and disparate as the individual clients operating in the markets today. Persistent industry pressures such as the need to manage costs and more efficiently access liquidity further combine to create a lengthy shopping list of client needs which algo providers are now increasingly aware of and keen to cater to. This is fuelling the marked upturn in client requests for customisations or tailor-made algo products which algo providers are now seeking to support. But with the rise of a variety of new developments in algo customisations, from modular algo trading frameworks to the co-development of bespoke toolsets, what are the changes that truly add value and what should banks be focusing on to deliver the best outcome for their clients? Nicola Tavendale investigates.



Nikki Tavendale

There is no one-size-fits-all when it comes to algo execution, due to different execution objectives and target benchmarks among clients, explains Neil McClements, Head of EMEA Multi-Asset e-Sales, RBC Capital Markets (RBCCM). He notes that by partnering with clients, the bank is able to provide more tailored, optimised solutions. "We have clients who use our intelligent hybrid IS algo strategy, for example, but what a hedge fund determines as aggressive urgency can be very different to what an asset manager determines as such," McClements adds. "Therefore we have multiple variations of our IS algo which are optimised for individual clients."

Liquidity is also critical and there are now a myriad of liquidity sources available, each with its own nuances: lit markets (eg primary vs. secondary, full amount v sweepable, firm vs. last

look etc), as well as dark, midpoint and internal pools, according to McClements. He explains that correctly harnessing these diverse liquidity types is fundamental to the success of algo execution. "Our algo suite uses advanced policy iteration techniques to achieve best execution by intelligently blending multiple liquidity sources in real-time, based on evolving market conditions," McClements says. "We have also designed and built our algo architecture from the ground up, which provides us with much greater control and the flexibility to provide tailored, optimised solutions. We can easily customise curated liquidity pools, execution urgency, participation (POV), risk checks and many more parameters."

According to McClements, client preferences for algo interaction can range from fire-and-forget through to constant calibration. By recognising this spectrum, RBCCM can offer intelligent amend capabilities, enabling clients to alter strategies or recalibrate execution parameters mid-flight, all without affecting their overall execution quality. He adds: "In addition, clients can utilise our 'I Would' facility, adjustable in real-time, to opportunistically utilise beneficial market conditions." There are also clear benefits from adopting a hybrid approach which allows clients to capture the strengths of multiple execution styles in a single algo, McClements argues. "For instance, our BlockSeek and Scaling features, allow clients to incorporate IS features into all our schedule algos (TWAP, VWAP, and POV strategies),"

he says. "Our LimitPlus strategy also offers clients the opportunity to scale lit quantity utilising POV, while also using BlockSeek to target duration. We can create tailored strategies to meet multiple client objectives, regardless of which overriding algo the client wants to execute."

NEED FOR TAILORED SOLUTIONS

Matthew Fitzpatrick, Head of e-FX Pricing and Flow Trading Models, Financial Markets at Westpac notes



Neil McClements

"Partnering with clients to build bespoke solutions to fulfil their specific execution requirements ensures a higher value proposition, and helps provide transparency."



Matthew Fitzpatrick

“Customised algos can provide clients with greater control over their trading strategies, allowing them to tailor their approach to their unique needs and market conditions.”

that ultimately clients are increasingly seeking customised FX execution algo toolsets and strategies for several reasons, including specific trading requirements, the impact of market volatility and an appetite among some algo clients for enhanced levels



Patrick Guevel

“One area which we thought would prove to be of great importance was the ability to change the algo style in flight.”

of control. For example, he explains that clients may need to trade certain currency pairs at specific times of the day when liquidity conditions might be challenging and customised algos can help navigate these conditions more effectively. “In volatile markets, participants may also need the ability to adjust their strategies quickly,” he adds. “Having tools that allow for rapid adjustments is paramount to maintaining effective trading strategies. In addition, customised algos can provide clients with greater control over their trading strategies, allowing them to tailor their approach to their unique needs and market conditions. By addressing these factors, customised FX execution algos can help clients achieve better trading outcomes and manage risks more effectively.”

Furthermore, liquidity is foundational to the customisation and construction of FX execution algos, as it influences strategy design, adaptive behaviour and risk management, Fitzpatrick adds. “It also ensures that algos can adjust to real-time market conditions and mitigate potential market impact and slippage,” he says. “In addition, providers are now offering more modular algo trading frameworks by allowing clients to customise execution urgency, participation rate, aggression level and venue preferences. This flexibility helps our clients to build their own tailored and highly effective trading strategies.”

It is also important to understand why clients are knocking at the door of algo providers asking them to provide bespoke elements or customisations to their chosen algo strategies, says Patrick Guevel, Head of FX Algo Execution at Societe Generale. He explains that some of these requirements can be straight forward, such as removing a certain venue from the curated liquidity pool. “Then other clients ask us to share ideas around how the algos might be made even better for them and we might have already been evaluating making certain changes which we can then put on the table to create these customisations for that specific customer. However, when we create a specific change like this, we often will do this with the aim of extending it to wider pool of algo

clients as well. If a customisation will be of wider benefit than to the single customer with whom we interacted to get this first, we tend to think larger and decide if the time and resources we have invested in this development could be leveraged by extending or enhancing the service as a whole.”

CUSTOMISATION AND CONSTRUCTION

Guevel notes that sometime clients might ask for individual adjustments to the curated liquidity pool, which the bank is able to accommodate. “Ultimately, it is the client’s decision and we will respect that, provided it is within the framework of the execution. Additionally, we highlight that it might not be optimal to remove that source of liquidity,” he says. “In the algo platform, we take inspiration from the equity market to track live measurement of the market volumes which we compare with historical values, and we adapt our liquidity pool accordingly. That is one of the major enhancements we have made this year for our FX algo suite.” The benefit of this new enhancement is that when there is a change in trading, for example on a bank holiday, then the tool will automatically detect that there is reduced activity and will adjust the parameters of the algo accordingly, Guevel explains. He adds: “This is all completely dynamic and was the direct result of discussions we had with our customers on how to best to manage these kind of changes in unusual market liquidity.”

In turn, as algorithmic trading becomes increasingly prevalent, State Street clients have also become more knowledgeable and are increasingly looking for FX algos that can execute according to their preferred nuances, adds Daniel MacGregor, Global Head of e-FX Platform Sales at State Street Markets. He adds that algo clients require the ability to customise venues and liquidity pools, execution styles and speeds, participation of volume parameters, while also accessing customised strategies with bespoke logic to help them achieve different objectives. “However, as more customisations becomes available, liquidity providers still need to build the customisation parameters to meet



HausFX

Deutsche Bank’s FX-as-a-Service

Automate your currency management and operational FX workflows with Deutsche Bank’s holistic suite of technology solutions.

- Open architecture
- Access to developed, emerging and restricted markets
- End-to-end automation
- Complete transparency

The future of FX is here.

Deutsche Bank



This advertisement has been approved and/or communicated by Deutsche Bank AG or by its subsidiaries and/or affiliates (“DB”) and appears as a matter of record only. Deutsche Bank AG is authorised and regulated by the European Central Bank and the German Federal Financial Supervisory Authority (BaFin). With respect to activities undertaken in the UK, Deutsche Bank AG is authorised by the Prudential Regulation Authority. It is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of Deutsche Bank AG’s authorisation and regulation by the Prudential Regulation Authority are available from Deutsche Bank AG on request. If you are a client of DB located in the European Economic Area, unless you have agreed otherwise in writing with DB, this communication is provided to you by or on behalf of Deutsche Bank AG’s Frankfurt head office. © Copyright Deutsche Bank AG 2025.



Daniel MacGregor

“At times, clients select a particular type of algorithm simply because it is widely supported by brokers, even if it is not designed to meet their specific goals.”

the desired outcomes and objectives of the client base,” MacGregor says. “At times, clients select a particular type of algorithm simply because it is widely supported by brokers, even if it is not designed to meet their specific goals. This can result in outcomes that fall short of expectations.” He explains that while a client might appear to be focused on achieving a certain benchmark, their true priority

may be minimising the market impact of their trade within a set timeframe. In this case, their objective shifts to reducing the standard deviation from the benchmark rather than just beating it, MacGregor explains. “Such unique requirements drive the development of customised algorithms tailored to address these precise needs,” he adds.

It is also proving crucial for providers to have modular building blocks or parameterised features so they do not have to rebuild bespoke algos from scratch, MacGregor warns. “State Street algos are designed with flexible architecture for quick, easy customisation to meet clients’ trading needs,” he adds. “For example, our TWAP and VWAP algos use similar building blocks run different underlying curves. The same type of “schedule” algos are easily customisable to follow different curves generated by an analytics module tailored for a client’s trading objective. Similarly, by rolling out our version of the ‘franchise skew algo’ within our existing FLOAT algo, we decreased time to production by not building a standalone algo and we have increased our internalisation ratio by 50 percent in 2025.”

COLLABORATIVE APPROACH

In equities, the co-development of bespoke algo toolsets between in-house quant teams and clients is already a common concept and it is something that RBCCM also actively supports in FX, adds McClements.

Clients benefit by having direct access to an outsourced quant and development team aligned on the same execution objectives, which according to McClements can then lead on to the client achieving a superior outcome. “Partnering with clients to build bespoke solutions to fulfil their specific execution requirements ensures a higher value proposition, and helps provide transparency which is critical for internal stakeholders to understand how the algo executes and why,” he adds. In addition, RBC algos are also primarily designed to adapt to liquidity conditions in real-time, which McClements says helps avoid the risk of overfitting to historical data. “For example, we have developed a unique Limit Order Model (patent pending), derived from a solution to the Multi-Armed-Bandit problem, which is able to intelligently overlay order urgency and size over the liquidity space to help achieve the best execution possible, while still maintaining a low footprint and minimising information leakage,” says McClements. “We are also able to partner with independent third-party TCA providers to provide clients the tools necessary to analyse execution quality. RBC has always been at the forefront of thought leadership and transparency on FX algo execution and has partnered with the world’s largest clients to provide innovative solutions. We provide a global real-time algo execution advisory service, and partner with leading independent TCA providers including both BestX and TradeFeedr.”

Real-time control of algos also allow for a high level of customisation, including adjusting the level of aggression or participation, changing the composition of liquidity providers, pausing and resuming the algo and changing the strategy mid-flight, says Emily Gaedtker, Head of Electronic Execution & Pricing Portfolio Management, Financial Markets, Westpac. “In addition, adaptive algos are being offered to blend execution styles in a single strategy. These algos can take some of the decision work out by allowing customers to define how they want the algo to behave depending on market conditions, which is particularly useful in fast-moving markets,” she adds.



Liquidity is foundational to the customisation and construction of FX execution algos



Emily Gaedtker

“Providers can also personalise algo strategies by analysing customer dealing behaviour, including price sensitivity and market impact - and then suggesting strategies based on this information.”

Furthermore, while co-development of bespoke FX algo toolsets is not



Mary Leung

“Having the ability to customise algo liquidity pools by client/ user leads to more successful outcomes for both the clients and the LPs.”

common practice according to Gaedtker, it is possible that buy-side firms with specific and unique trading requirements might consider this more integrated and individual approach. “Providers can also personalise algo strategies by analysing customer dealing behaviour, including price sensitivity and market impact - and then suggesting strategies based on this information,” she says. “Providers are now increasingly offering varying levels of value-added support services such as real-time TCA, chats with algo specialists, digital assistants, and AI-generated insights to further improve the algo trading experience for clients.”

Demand for modular algo trading frameworks with customised components has also increased in recent years, adds Guevel. “Only around five years ago FX algo offerings were far more rigid, but then we started to decide that the customer can change everything but the currency pair and the side of the order when executing,” he says. “For the rest of the parameters, we made it completely flexible. One area which we thought would prove to be of great importance was the ability to change the algo style in flight - so a client might start the passive algo, only to find that the liquidity is far from optimal. One of our customers was wondering if we could do something to solve this issue, which is why we created the capability to switch to another strategy, such as Falcon.”

ACHIEVING SUCCESSFUL OUTCOMES

Another area which SocGen developed was the ability to change the end time of the algo execution during its lifespan. “For example, our passive algo ends at the same default time, but a client may want it to finish earlier than that. We enabled this live parameter change in the algo and it is now relatively simple to modify”, Guevel says. “One important thing to consider as well is that the market is at a point where there is a race-to-zero on fees, which makes some providers reluctant to invest in changes unless there is a compelling reason to do so.”

Mary Leung, Global Head of Client Algos at State Street, adds that at

State Street, the belief is that too many algorithmic strategies within an offering can overly complicate buy-side algo usage and be counterproductive. Instead, she argues that a streamlined algo offering with additional flexible parameters is the best way to provide a toolset that can blend styles. “For example, incorporating an Implementation Shortfall (IS) or Percent of Volume (POV) parameter within our flagship ‘FLOAT’ strategy, rather than having separate IS and POV strategies, allows clients to engage or change the algo on the fly within the same “FLOAT” strategy,” she says. “Additionally, we have deployed a bespoke ‘algo of algo’ strategy, providing the flexibility to run all FX algo strategies as individual strategies under one parent notional.” In turn, Leung notes that the collaborative approach of in-house quant teams working directly with clients to build more customised solutions is an approach which should be the foundation for building all algorithms. “Whether it’s solving workflow problems, providing greater transparency in Smart order Router (SOR) execution, enabling bespoke liquidity construction, or developing innovative algos with unique features, clients have always been at the heart of State Street’s algo offering. We have developed multiple FX algos and enhancements based on clients’ objectives, thoughts and ideas and we look forward to continuing our partnership with clients as the market evolves,” she adds.

However, Leung warns that having a ‘one-size-fits-all’ algo will never work, which is why flexibility in parameters or ‘backend customisation’ is paramount for success. “As an example, some clients may think a standard ten percent POV rate is slow, while other clients think this is too fast,” she says. “Some clients want large order peer-to-peer matching, while others only want smaller peer-to-peer clips. Having this customisation available is crucial to fit the expected outcomes of various clients. Additionally, having the ability to customise algo liquidity pools by client/user leads to more successful outcomes for both the clients and the LPs,” Leung concludes.

Meeting the sophisticated needs of US FX algo clients

The needs of FX algo clients globally may be similar, but US clients have specific requirements when it comes to liquidity access and sophisticated data and analytics provision. Andy Mosson, Director, HausFX and FX Execution Advisory Sales at Deutsche Bank shares how FX Sales support US clients at every stage of their algo execution process.



Andy Mosson

What are the unique requirements of your US client base when utilising execution algos?

Our US clients, like all our clients globally, are continually seeking increased transparency and control in their execution experience, and this is especially true when using execution algos. The US market has been the historical leader in transparency and

best execution, concepts that evolved from the National Association of Securities Dealers' (NASD) early work in the 60s and 70s through to Dodd-Frank's formalisation of these terms in 2010. This, combined with the early emergence of the largest and most sophisticated equities market, means that our US clients have grown up with a trading DNA that drives the need for detailed analytics and reporting. This in turn means focusing on execution tools that minimise market impact and achieve optimal pricing. Then there are also practical nuances, such as trading late into the US afternoon as liquidity wanes or the recent transition to T+1 equities settlement - we are well equipped to help with 24/5 full functional coverage, not just a night desk on the trading side or a skeleton ops shift.

Have these needs changed over the past year?

Absolutely. While the demand for transparency and control has been

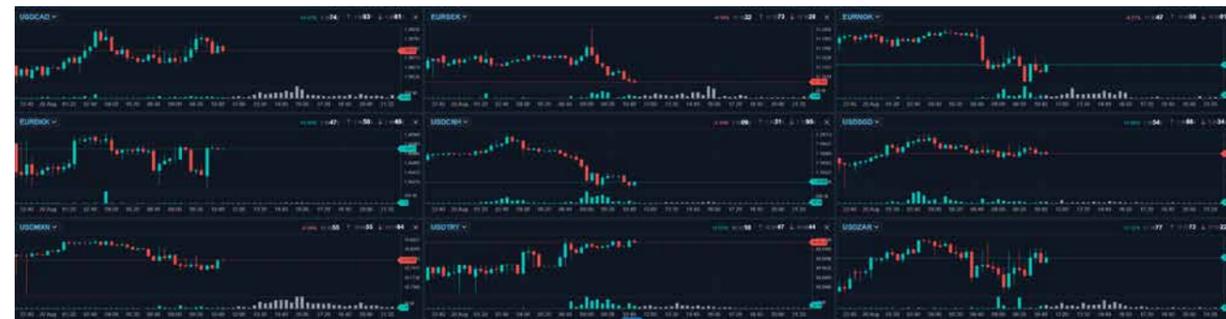
constant, we have observed a significant shift towards more sophisticated data and analytics tools. Clients are no longer satisfied with simply using algos; they want to understand how they work and to prove their effectiveness. The heightened volatility of 2025 has further amplified the need for algos that can adapt dynamically to changing market conditions. This need is fuelled by a desire to minimise risk and protect against unexpected market movements, something that is newly topical in dollar markets.

How does your offering aim to support these needs?

We are committed to supporting our clients at every step of the execution process. We provide a full suite of algos tailored to different trading objectives – from our 'opportunistic' Stark algo to our 'aggressive' Iceberg algo. Crucially, our offering extends beyond just the algos themselves. Our Market Colour app provides pre-trade predictive analysis, in-flight colour and guidance, and post-trade TCA. Our recent investment in a Global FX Execution Advisory (FXEA) team adds the human element, ensuring our algo clients have an SME on hand to guide them through their execution experience.

Have you seen an increase in demand for data and analytics tools? What is driving this?

There is a clear trend towards data-driven decision making in the FX market, and in many ways it has already caught up with the equities market. The drivers are multi-faceted: regulatory requirements, the need to demonstrate



Our Market Colour app provides pre-trade predictive analysis, in-flight colour and guidance, and post-trade TCA

best execution, and the pursuit of alpha generation all contribute. Clients want to see granular insights into trading performance. The increased reliance the buy-side puts on third party data sets such as BestX and Tradefedr is a clear indicator of this demand. Ultimately the client push for data and insights is what will drive true automation in workflows; this is something that our HausFX team focuses on with our clients who have ancillary FX activity, for example securities-linked FX.

How do you support clients through volatile market events with access to robust liquidity?

During volatile periods, access to reliable liquidity is paramount. We expend significant effort maintaining strong relationships with a diverse panel of external liquidity partners to ensure continuous access, even under stress. Our algos automatically adjust their order placement strategies to optimise for liquidity. We saw significant usage of our Market Colour app during April 2025 when Bloomberg had a pricing outage, and many clients have stayed with it as an additional tool.

In what ways has the demand for internalisation changed and how does this reflect in your offering?

The recent guidance paper on internalisation published by the FXPA shows the extent to which this topic is front of mind for all market participants. A foundation feature of our algo suite is the ability for our clients to work with our algo quants to customise their liquidity pool setup. This gives them the option to increase or decrease the level of internalised fills by currency pair and by algo type, and for our bank clients to even include their own liquidity.

The prominence of internalisation stats within our TCA reporting is testament to how critically we treat this requirement in our product set.

What demand is there from US clients for greater transparency and disclosures?

Transparency is non-negotiable. US clients demand full visibility into how their orders are executed. We achieve this through a combination of real time in-flight analytics, which allows clients to visualise algo performance as it runs, commentary and analysis from our execution advisory team, and comprehensive post-trade TCA, utilising both in-house tools like Market Colour and integrations with third-party providers like Tradefedr. We also undertake regular performance reviews with heavy users to work together on optimal execution outcomes.

Do you continue to see an appetite for customisations and bespoke algo tools and settings? How do you reflect this in your algo suite?

Absolutely. While our standard algo suite is robust, we recognise that sophisticated clients often require tailored solutions. We offer extensive customisation options, from liquidity source selection to dynamic TWAP/VWAP schedules. Our 'A/B testing' function further exemplifies this commitment, allowing clients to iterate their designs until the algo is perfectly aligned with their objectives. The customisations also extend beyond the development cycle: our Autobahn algo product is designed with in-flight features built from the core of our infrastructure – this gives clients ultimate control even once they've placed the order.

Are there any other new developments or anything in the pipeline that you would be able to share with the readers?

We are constantly innovating. One area that is particularly promising is the integration of machine learning and AI to enhance algo performance. For regional bank clients, look out for our DBHedge product. While this is more of a risk management algo, it offers the same plug-and-play access to advanced hedging capabilities as our execution algos. These projects exemplify our dedication to pushing the boundaries.

In what ways do you expect the FX algo market to continue developing over the next year?

We expect to see increased automation, a greater focus on transaction cost analysis, and although it is now something of a cliché, a wider adoption of AI and machine learning – we are already seeing this being implemented on the buy side as clients look to analyse and critique their LP panels' performance. In addition to the existing bank players, there will be a trend towards smaller FX firms using grey and white labels to outsource their algo and advisory facilities, as a strategic tool for infrastructure and cost management. Our HausFX team is a further area where Deutsche Bank has the edge on our peers. Our FX-as-a-Service solutions are built from tried-and-tested components, or 'building blocks' as we call them, that are customised to each individual client business challenge and setup. Building an algo suite or risk management system from scratch in 2025 is like trying to catch a moving train – yet we have the capability to partner with our HausFX clients to deliver a robust tier 1 bank infrastructure product specific to their needs so it becomes their product.



The heightened volatility of 2025 has further amplified the need for algos that can adapt dynamically to changing market conditions

Peg Clipper:

Internal liquidity, external brilliance. A powerful algo that delivers better customer outcomes.

Dr John Quayle, Head of Client Algo Execution at NatWest Markets, tells more about the features and functionality of Peg Clipper.



Dr John Quayle

GENERAL OVERVIEW:

What is the FX algo called?

Peg Clipper, NatWest primary execution algos

What category does it fall into?

Passive/implementation shortfall

What does it attempt to do?

It attempts to fill with the smallest possible market impact, whilst maintaining a reasonable rate of execution. Tradefeedr data tells us that it achieves both of these aims successfully – executing faster and with a lower slippage from inception mid than the average of peers.

STRUCTURE:

What is the algo's software architecture?

100% proprietary software in NY4 colo, alongside our COMS (Client Order Matching System) – a matching engine which leverages the NWM global franchise.

Does it use proprietary modelling?

Yes, extensively. From the adaptive pegging logic to liquidity management, modelling is key to achieving minimal market impact.

Does it use technology such as AI or ML? If so, how?

AI is not used. The algo logic is 'rules based' which means it is reliable and repeatable and we will always be able to explain why it did what it did. In determining the rules however, and in curating the COMS liquidity which is key to the algos performance, ML is widely used. I would go as far as to say that this is the single key proprietary ingredient which differentiates this algo from others.

FUNCTIONAL ASPECTS:

Does the algo adapt automatically to prevailing market conditions and if so how?

Yes, Peg Clipper algos are constantly adapting to the market. 'Adaptive' dynamics are employed to ensure a

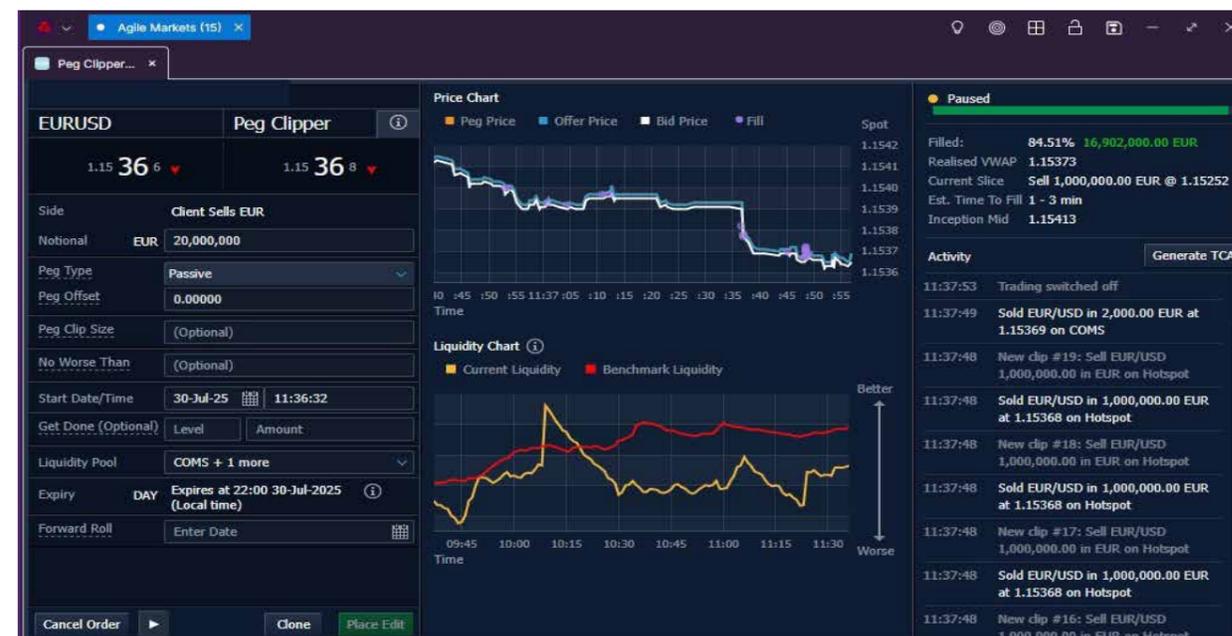
smooth rate of fill, minimise adverse selection and optionally target a given end time should the user wish.

Does it incorporate smart order routing?

Yes, again depending on the mode of operation SOR will be used to selectively access liquidity from the wider market if the level of urgency demands it. The algo is particularly flexible, and whilst most users are content to sit quietly in the COMS pool for lowest market impact/best performance, the level of aggression can be scaled up considerably as desired in which case being smart on the wider market access is vitally important.

How does it minimise market footprint?

This is the crux of the matter, and the most important aspect of the algo! The biggest single determinant of any algos performance is the quality of liquidity that it can access, and that means finding those clients or market participants who are truly 'skew safe' and will therefore fill the 'algos' resting child orders with the least market impact. The primary liquidity pool that almost all Peg Clippers users make use of is COMS – this is our proprietary liquidity pool, and therefore the one that we have the most control over. The secret sauce that we have here is the ability to limit the COMS participants to those in our client base who are truly skew safe, and identify changes to that situation in a very timely manner.



NatWest Peg Clipper in action

What liquidity seeking and access capabilities does it deploy?

The notion of seeking liquidity over a wide range of venues, and minimising market impact, are not natural bedfellows. In fact I would go so far as to say that they are potentially mutually exclusive! The Peg Clipper in its more passive modes (i.e. the ones that yield the best performance) will simply fill quietly in the chosen liquidity pool (usually COMS) and do very little active liquidity seeking as it doesn't need to. If however the user decides to dial up the speed of execution, the algo will be much more active in utilising a range of venues to find the liquidity that it needs.

What operational risk management does it include?

There are multiple layers of controls, from Fat Finger on inputs through to multiple 'circuit breakers' at the container level which will monitor all the algos 'vital signs' and either throttle, temporarily pause or in more serious cases halt the algo completely. There are various controls which can also be set at a client or user level, in order to give clients comfort that the usage of the algo can be kept within their own risk appetite.

PARAMETERS AND CONTROLS:

What client inputs are available in the algo?

The full list is long, but almost

everything can be pre-configured or defaulted - the minimum is simply 'pair', 'direction', 'size'. Beyond these 3, optionally almost any aspect of the algo can be controlled real-time by the client. For example, liquidity pools can be changed without pausing the algo, levels of aggression can be very finely tuned, and spot levels which will trigger a change in behaviour can be set.

How much real-time feedback does it provide?

Users of the Agile Markets platform have a rich and interactive experience – a wealth of real time data is visible showing the pegging levels, all individual child fill data and so on. Performance vs various benchmarks are continuously updated. Full TCA reports can be generated at any point during the execution as well as on completion. For clients using a 3rd party GUI, our solution to providing real-time updates is to send a web link by email as soon as the algo is initiated, and this link will enable a view-only version of the Agile Markets algo management screens to be visible.

CAPABILITIES AND USE:

What execution styles (e.g. passive/aggressive) does the algo support?

There are 4 pegging styles to choose from: the basic Passive/Mid/Aggressive, which correlate to Slow/Medium/Fast settings, plus an 'Adaptive' mode, which used an in-house model to vary the

level of pegging real-time to respond intelligently to market moves. A further, secondary offset allows for fine tuning the pegging level to give complete flexibility on the passive to aggressive spectrum.

How can it be integrated/called with/by higher-level workflows?

Although the majority of use cases as a standalone algo the Peg Clipper can easily be integrated into any other automated workflows. The FIX API is available and we have several use cases where clients are calling the Peg Clipper as a 'Child' algo of their in-house algo or other execution logic.

What is the optimal scenario for its use?

The optimal scenario is where the user needs to do a large trade in a reasonable timeframe with low market impact. For the Peg Clipper this means using a Passive or Adaptive setting into the COMS pool only, and being willing to allow the algo to fill at the natural pace for the prevailing liquidity.

Any other functionality worthy of note?

The focus on the quality of liquidity is paramount, and it is this that gives the Peg Clipper the level of performance that makes it the go-to algo for many of our most active clients.



Exploring the growing use of technology and algorithmic trading in the corporate treasury environment

With Fei Xie, Treasury Manager, Markets & Trading at Amazon.

Fei, please tell us a little about what your job involves.

I work in a corporate treasury trading function where I oversee FX execution across a wide range of currency pairs, including spot, forwards, NDFs, and swaps. My role centers on managing market-facing execution and optimizing outcomes through algorithmic strategies, especially for large-value trades. These tools help us reduce market impact, control execution costs, and minimize information leakage.

Beyond execution, I help design and implement strategic hedging strategies aligned with macroeconomic conditions, using data-driven insights to manage currency risk across regions. I also lead automation initiatives to streamline workflows, integrate analytics, and enhance real-time visibility. Collaborating closely with liquidity providers and internal stakeholders, I bridge market expertise with operational precision to support business objectives globally.

What range of instruments are treasurers generally working with?

From what I see in the industry, corporate treasuries primarily work with FX spot, forwards, swaps, and non-deliverable forwards (NDFs). These instruments form the core of hedging programs aimed at managing transactional and translational currency risk.

We also see the use of interest rate swaps and cross-currency swaps to

manage funding and balance sheet risk. Additionally, some corporates use basic options strategies – such as collars – to provide downside protection while preserving some upside, particularly when hedging budget rates in volatile environments.

While the instrument set is typically more risk-focused than return-seeking, the sophistication of how these tools are deployed continues to evolve with hedging objectives and market conditions.

How important are FX execution algos becoming in treasury trading activities, and what are the main objectives when using them?

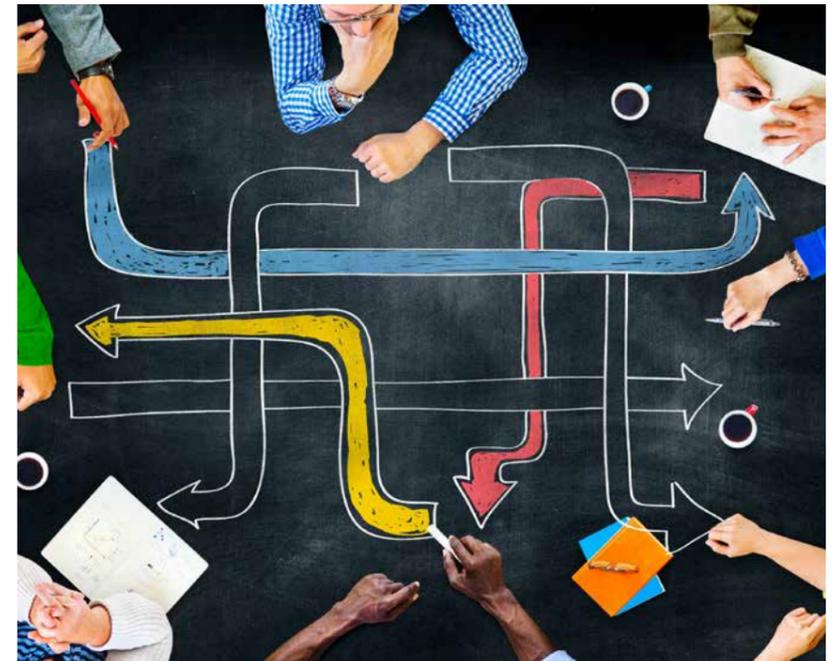
Algos are becoming a core part of FX execution infrastructure for many corporates. Market-wide, algo usage has grown significantly—Bloomberg reports it has risen from about 20% 5 years ago to nearly 50% today. This adoption trend underscores a broad shift toward automation, driven by the need for more efficient and data-informed execution practices.

The main objectives include reducing market impact through intelligent order slicing, improving execution precision across fragmented liquidity pools, avoiding information leakage—especially in less liquid pairs or large trades—and enhancing consistency and scalability, particularly across regions or time zones. Algos are no longer niche tools; they are now foundational for firms that care about execution quality, data, and control.

How would you summarise some of the key benefits of utilising FX execution algos, especially in the corporate treasury environment?

FX algos offer strong advantages for corporate treasuries focused on efficiency, control, and transparency. They reduce market impact by slicing orders intelligently and improve cost outcomes, especially in less liquid pairs. Algos also allow firms to tap into diverse liquidity sources with minimal information leakage.

More importantly, they enhance operational scalability. With pre-trade



Algos are powerful, but they're most effective when paired with experienced oversight and tactical decision-making

analytics, real-time visibility, and post-trade TCA, algo execution gives treasury teams the flexibility and insight needed to trade confidently in a fast-moving global market.

What issues need to be considered when it comes to going about sourcing FX execution algos, and what factors might influence the decisions that have to be made here?

Selecting algos should start with aligning the offering to your specific execution objectives. Key considerations include the breadth of strategies available (TWAP, VWAP, liquidity-seeking, passive/aggressive), coverage across currency pairs (especially in restricted markets), and the underlying liquidity sourcing model—whether it's venue-agnostic or favors internalization.

Another important factor is the integration of pre-trade, in-flight, and post-trade analytics. These tools provide transparency and enable traders to calibrate execution strategies in real time. In-flight analytics, in particular, allow traders to respond to shifts in volatility or spreads mid-trade—a critical feature during turbulent market conditions.

The ability to configure execution parameters, such as speed, execution style, and venue preference, also matters. Strong sales coverage, clear documentation, and regular performance reviews further influence provider selection. Ultimately, decisions should be guided by measurable execution outcomes, not just brand recognition. Firms should pilot different providers and review their slippage, spread capture, and participation rates to identify the most aligned and consistently high-performing partner.

In addition, alignment with the FX Global Code is an increasingly important consideration. Firms should ensure that their algo providers adhere to the principles of fairness, transparency, and governance outlined in the Code. This reinforces ethical standards across the execution process and builds trust with internal stakeholders and external counterparties alike.

Some traders are happy to let an algo do its work without much oversight, whilst others prefer more real-time visibility during the execution process. What's your opinion about that?

I believe real-time visibility is critical. Market conditions change rapidly—



Pre-trade tools help select the right strategy based on liquidity and volatility conditions

Post-trade analysis is a cornerstone of FX algo adoption. It provides objective, data-driven feedback on how well a strategy performed relative to expectations. Traders typically evaluate slippage versus arrival price, risk transfer price, TWAP or VWAP benchmarks, participation levels, fill ratios, and overall execution efficiency.

Third-party TCA providers like BestX are often used to provide independent validation and enable benchmarking across providers and time periods. This allows us to assess whether one provider consistently outperforms others in specific currency pairs or under certain market regimes. The insights gained from these reviews help inform future strategy selection, flow allocation, and provider engagement. Over time, this structured analysis ensures that execution remains optimized, transparent, and aligned with business goals.

In what ways is leveraging data and analytics becoming more important in helping traders make more effective use of FX algos?

Data and analytics are central to the full lifecycle of FX execution. Pre-trade tools help select the right strategy based on liquidity and volatility conditions. In-flight analytics provide real-time insights, allowing for course correction during execution. Post-trade TCA completes the loop by validating performance and informing future optimization.

Traders today need to be comfortable with interpreting this data and translating it into action. It's what makes algo execution more than just automation—it becomes a tool for ongoing improvement.

What about algo wheels? What are your thoughts about the relative merits of using those?

Algo wheels can support fairness in provider allocation and reduce human bias in routing flows. They also simplify performance tracking by standardizing how trades are assigned across banks.

That said, the benefit is marginal if

you already allocate flow based on real execution quality. For example, some corporates may allocate algo flow based on actual trading performance. This approach allows them to reward providers who deliver the best results while keeping control over how flow is distributed. For some, wheels are helpful; for others, disciplined oversight can be equally effective.

How far do you expect to see next generation technologies like AI making their presence felt in the trading room over the next few years and being used in applications like algorithmic FX trading?

AI is already beginning to influence FX trading, and I expect its role to expand rapidly in both execution and strategy design. One of the most promising applications is in pre-trade decision-making: using AI models to determine whether a trade should be executed via RFQ or algorithm based on expected cost, urgency, and market conditions. I would also expect the use of AI in selecting the most suitable algo strategy based on real-time liquidity, volatility and cost projections – essentially turning strategy selection into a smarter, data-driven process.

During execution, AI can power adaptive algorithms that adjust participation rates, aggression levels, or venue selection in real time, optimizing fill quality while minimizing slippage. Post-trade, AI can be used to detect patterns in slippage or identify anomalies in execution performance that human analysts might miss. While traders won't be replaced, their toolkit will become increasingly intelligent – freeing them to focus on high-impact decisions rather than manual interventions.

In what ways is the growing use of technology and advanced toolsets like algorithmic trading likely to impact on the future skillsets required of top-class traders like yourself and how will it change the nature of the trading room environment that you are operating in?

The future trader must be as comfortable with data and systems as



Partnership is key—collaborate closely with algo providers and independent TCA platforms

they are with markets. As execution becomes increasingly electronic, traders are evolving into strategic architects configuring execution flows, analyzing TCA, and managing provider performance.

The trading environment is shifting from manual to strategic. With many low-touch trades automated, the focus is on large orders and execution strategy development. The future trading room will be less about button-clicking and more about shaping execution workflows, managing tools, and adapting in real time.

Do you expect to see more use being made of algorithmic trading toolsets in FX in the future?

Absolutely. As FX markets grow more electronic and fragmented, algos offer scalable, cost-effective execution. Systematic hedge funds already rely heavily on algos, and these capabilities are now spreading across real money and corporate desks. With growing confidence in algo performance, expanding support across EM currencies, and greater integration with analytics platforms, I expect algos to continue gaining share becoming the default execution method in many FX programs.

What advice would you give to firms who may be considering using FX execution algos and looking to exploit the power of these powerful toolsets?

Start by defining clear goals for using FX algos—whether it's reducing trading costs, improving transparency, or enabling scalability. Firms new to algo execution should begin with a small set of currency pairs and monitor results closely using pre-trade analytics and post-trade TCA.

It's important to view algo execution as a strategic capability, not just an automation tool. This means investing time in understanding each provider's strategy logic, backtesting assumptions, and regularly reviewing performance. Traders should also be trained to adjust algo parameters in real time based on changing market conditions.

Partnership is key—collaborate closely with algo providers and independent TCA platforms to ensure continuous improvement. With the right foundation, FX algos can meaningfully enhance execution performance and help institutional desks scale and compete in a more electronic marketplace.



FX algos offer strong advantages for corporate treasuries focused on efficiency, control, and transparency

tradetech FX

September 16 - 18, 2025 | Barcelona

The Biggest Buy Side FX Conference

300+ 800+ 80+

SENIOR BUY SIDE ATTENDEES

FX ATTENDEES

BUY SIDE HEADS OF FX SPEAKERS

LEAD SPONSORS

LSEG FX

LMAX GROUP

PRINCIPAL SPONSORS

DEUTSCHE BÖRSE GROUP

Goldman Sachs

oneZero

GlobalLINK

UBS



Redeem 10% Discount
TTFXEF10

FXALGO NEWS

SUBSCRIPTION REQUEST

Subscribers receive 4 printed copies of the publication each year together with unlimited access to the registered section of the FXAlgoNews website (www.fxalgonews.com)

YOUR DETAILS (All information is kept confidential)

Name Job title

Company

Address

City Post/Zip Code

Country

Telephone Fax

E:mail

PRICE (tick the relevant box) Your subscription will commence with the next issue unless otherwise requested.

1 Year (4 editions) at £150 or £175 Rest of World

2 Years (8 editions) at £210 or £240 Rest of World

QUANTITY REQUIRED Discounts are offered for 3 or more subscriptions.

Please Fax a separate list of names & addresses. TOTAL PAYMENT

PAYMENT OPTIONS (please tick where relevant and follow the instructions)

CREDIT/DEBIT CARD

Mastercard Visa American Express Debit card

Card Number:

Expiry Date: /

CHEQUE make payable to **SJB Media Ltd** (please print name on the back of the cheque)
 Post to Subs Dept: **SJB Media Ltd., Suite 153, 3 Edgar Buildings, George St., Bath, BA1 2FJ, UK**

BANK TRANSFER Please contact us on +44 1736 740 130 to arrange this.

NB. Payment must be received before subscription can commence. Please send me an invoice for my records

This subscription is for me personally a company

VAT number (Required for European Community based companies only)

Signed: Date:

Name in capitals:

Please e-mail this form back to:

Charles.Jago@fxalgonews.com

THANK YOU



Got Questions?



Suggested Searches

- 🔍 what products do FXSpotStream support?
- 🔍 who was the fastest growing FX service in 2024?
- 🔍 does FXSpotStream charge clients?
- 🔍 is it true that FXSpotStream has 18 Tier 1 LPs available?
- 🔍 which vendor partners does FXSpotStream support?
- 🔍 does FXSpotStream offer a GUI?
- 🔍 does FSS have an Ultra Low Latency Network?
- 🔍 which algos do FXSpotStream support?

We've Got Answers

www.fxspotstream.com



FXSpotStream provides a multibank FX streaming and a matching service supporting steaming of pricing in FX Spot, Forwards, Swaps, NDF/NDS and Precious Metals Spot and Swaps. Clients can access a GUI or single API from co-location sites in New York, London and Tokyo and have the ability to communicate with all Liquidity Providing banks connected to the FXSpotStream Service.



BOOK OF THE MONTH

High performance algorithmic trading using Machine Learning



booktopia.com.au/high-performance-algorithmic-trading-using-machine-learning-franck-bardol/book/9789365893892.html

Algo Venture: AI based algo trading technology



my.algo-venture.com/



WEBSITE OF THE MONTH



QUANT STRATS LONDON
14- 15th October 2025

alphaevents.com/events-quantstratsuk



TRADETECH FX BARCELONA
16 - 18th September 2025

tradetechfx.wbresearch.com



FOR THE DIARY

FXALGO NEWS

Charles Jago
Editor
charles.jago@fxalgonews.com
+44 1736 740 130

Nicola Tavendale
News editor
nicola@ntavendale.com
+44 1736 740 130

Susan Rennie
Managing Editor
susie.rennie@fxalgonews.com
+44 1208 821 802

Charles Harris
Advertising sales
charles.harris@fxalgonews.com
+44 1736 740 130

David Fielder
Subscriptions manager
david.fielder@fxalgonews.com
+44 1736 740 130

Tim Hendy
Digital & Web services
tim@thstudio.co.uk
+ 44 1209 217168

Matt Sanwell
Design & Origination
matt@designunltd.co.uk
+44 7515 355960

Larry Levy
Photography
larrydlevy@gmail.com

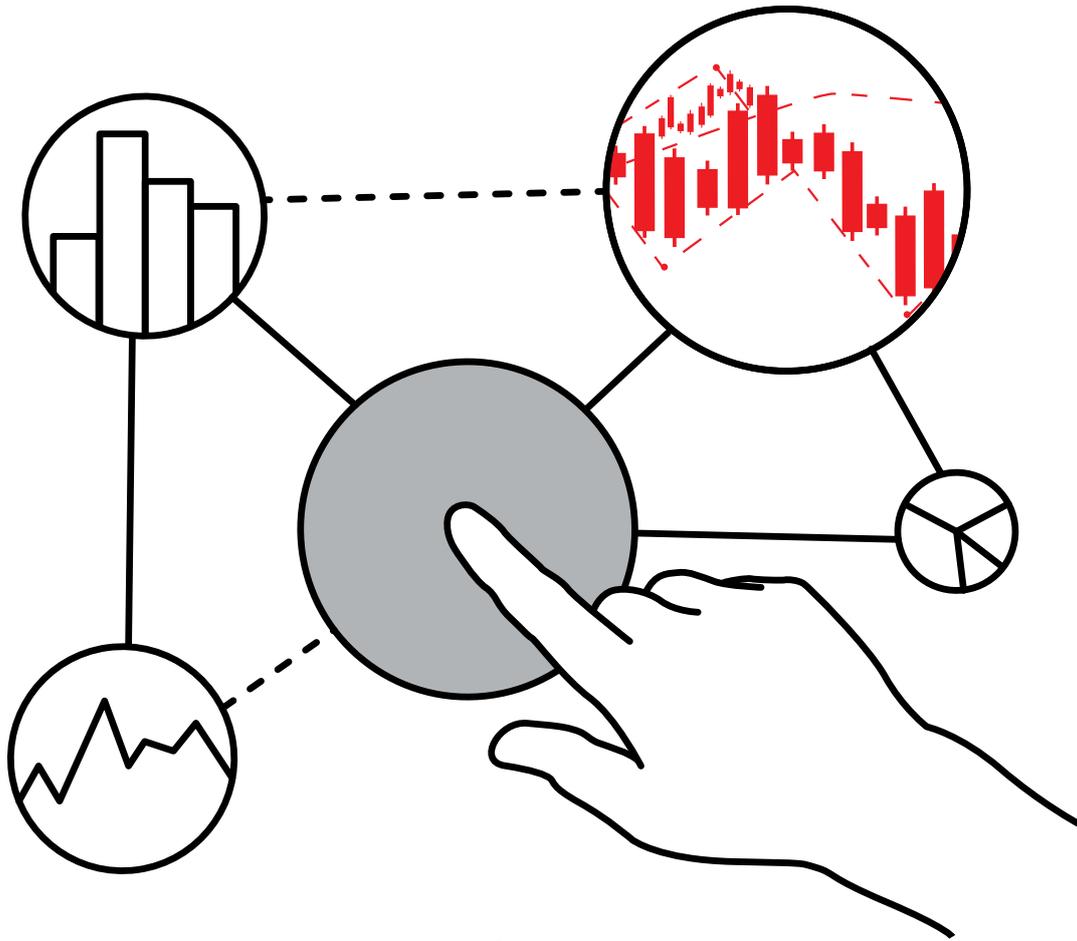
Michael Best
Events manager
michael.best@fxalgonews.com
+44 1736 740 130

SJB Media Ltd
Suite 153, 3 Edgar Buildings
George Street, Bath, BA1 2FJ
United Kingdom
Tel: + 44 (0)1208 82 18 02 (switchboard)
Tel: + 44 (0)1736 74 01 30 (Sales & editorial)
Fax: + 44 (0)1208 82 18 03

Printed by Headland Printers
Published quarterly. ISSN 2056-9750



Although every effort has been made to ensure the accuracy of the information contained in this publication the publishers can accept no liabilities for inaccuracies that may appear. The views expressed in this publication are not necessarily those of the publisher. Please note, the publishers do not endorse or recommend any specific website featured in this newsletter. Readers are advised to check carefully that any website offering a specific FX trading product and service complies with all required regulatory conditions and obligations. The entire contents of FXALGONEWS are protected by copyright and all rights are reserved.



Reimagining the power of FX Algos

UBS FX Algorithms help our clients reduce market impact, improve performance and add resilience to their trading workflow through:

- Sophisticated Smart Order Router
- Comprehensive liquidity access including UBS internalization
- Advanced machine-learning framework
- Robust strategies from liquidity seeking to passive execution

Find out more, search UBS FX Algo



For Professional and Eligible Counterparties / Institutional / Accredited Investors only.

The value of investments may fall as well as rise and you may not get back the amount originally invested. As a firm providing wealth management services to clients, UBS Financial Services Inc. offers investment advisory services in its capacity as an SEC-registered investment adviser and brokerage services in its capacity as an SEC-registered broker-dealer. Investment advisory services and brokerage services are separate and distinct, differ in material ways and are governed by different laws and separate arrangements. It is important that clients understand the ways in which we conduct business, that they carefully read the agreements and disclosures that we provide to them about the products or services we offer. For more information, please review the PDF document at ubs.com/relationshipssummary. © UBS 2022. These materials are provided solely for informational purposes. For further important country specific information visit: ubs.com/disclaimer. All rights reserved. UBS Financial Services Inc. is a subsidiary of UBS AG. Member FINRA/SIPC.

