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Welcome to

**e-FOREX**  
transforming global foreign exchange markets

May 2025

This month our Market Commentary feature is focused on ECNs and is exploring the various reasons why they continue to attract FX trading firms. ECNs are being increasingly recognised as invaluable sources of data that can be used to develop sophisticated trading strategies, enhance risk management and inform market microstructure research. Leading ECN providers are also looking to enhance their value proposition by, for example, investing in next generation technologies like AI and machine learning, making themselves Global FX Code-compliant, handling credit and expanding their product mix beyond FX. As the FX market increasingly embraces automation and algorithmic trading, ECNs look poised to grow in popularity due to their critical role in supporting these advanced trading paradigms.

Our Special Report in this edition takes a close look at the evolution of Order Management Systems and how OMS solutions can be tailored and engineered to deal with the specific requirements of FX. OMS platforms have become much more than just trade routers and can now facilitate predictive analytics, intelligent automation, risk control and seamless multi-asset trading. As professionals at buy-side firms gravitate toward multi-asset class solutions, the management of workflows is changing the look and feel of vendor OMS solutions turning them into a "strategic weapon" which can eliminate human error, maximise automation and transform how institutional investors navigate and command fragmented markets like FX.

Transaction Cost Analysis has evolved from a simple, 'check the box' into a service that helps firms improve understanding of technical and operational risk and evaluate their trading performance. So this month we examine how to integrate and implement it into FX trading workflows. The future of FXTCA points towards greater integration with predictive analytics and AI with systems able to dynamically adapt trading strategies mid-execution and provide deeper analytical insights into liquidity provider behaviours and algorithm performance. Real-time, machine-readable live TCA which plugs directly into automated execution engines, enabling adaptive behaviour on the fly appears to be where we are heading with this.

A final word about our Ask A Provider feature this month which tackles some questions about the well known conundrum of whether to build or buy the infrastructure and skillsets required for increasingly complex e-FX and fintech requirements. The issues are no longer just about cost or speed versus control because new technologies and operating models have redefined what's possible and transforming how firms approach this key decision.

As usual I hope you enjoy reading this edition of the magazine.

**Charles Jago**  
Editor

**Susan Rennie**  
Susan.rennie@sjbmedia.net  
Managing Editor

**Charles Jago**  
charles.jago@e-forex.net  
Editor (FX & Derivatives)

**Charles Harris**  
Charles.harris@sjbmedia.net  
Advertising Manager

**Ben Ezra**  
Ben.ezra@sjbmedia.net  
Retail FX Consultant

**Michael Best**  
Michael.best@sjbmedia.net  
Subscriptions Manager

**David Fielder**  
David.fielder@sjbmedia.net  
Digital Events

**Ingrid Weel**  
mail@ingridweel.com  
Photography

**Tim Hendy**  
tim@thstudio.co.uk  
Web Manager

**SJB Media International Ltd**  
Suite 153, 3 Edgar Buildings, George Street,  
Bath, BA1 2FJ United Kingdom  
Tel: +44 (0) 1736 74 01 30 (Switchboard)  
Tel: +44 (0) 1736 74 11 44 (e-Forex editorial & sales)  
Fax: +44 (0)1208 82 18 03

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**SJB**  
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May 2025

# CONTENTS



**Nicholas Pratt**  
ECN platforms



**Arijit Ganguly**  
Restricted markets



**Paul Golden**  
OMS Report



**Jeff Ward**  
e-Forex Interview



**Olli Lämsä**  
Build or Buy?



**Lissele Pratt**  
EMIs

## MARKET COMMENTARY

### 12. ECNs: providing a direct, transparent, and cost-effective alternative to traditional FX liquidity sources.

Nicholas Pratt explores the various ways that ECNs offer a more flexible, transparent, and efficient solution for buy-side clients looking to optimise their FX execution.

## PROVIDER VIEWPOINT

### 22. Electronic FX in restricted markets.

Arijit Ganguly tells us more about restricted markets and the future prospects for opening them.

## SPECIAL REPORT

### 24. How FX trading firms can exploit the power of next generation order management systems.

The evolution of order management systems means it is more important than ever for FX trading firms to carefully assess the available solutions and how they interact with other infrastructure as Paul Golden discovers.

## E-FOREX INTERVIEW

### 32. FXSpotStream: still hungry to succeed.

After joining the company as CEO in January 2024, Jeff Ward and FXSpotStream embarked on a record setting year. Now, in Q2 of year two, we caught up with him again to see if he felt the growth was sustainable, or a benchmark on which to build.

## TRADING OPERATIONS

### 40. Integrating Transaction Cost Analysis into FX trading workflows.

Paul Golden outlines why market participants need to consider various factors specific to FX if they are to maximise the benefits of TCA while addressing the operational and strategic challenges of integrating it into their trading activities.

## CASE STUDY

### 48. How LSEG helped a multinational corporation automate its treasury workflows to optimise risk management and FX trading.

By collaborating with LSEG FX, Mondelez International has been able to simplify workflows, access more FX liquidity and improve the efficiency of its treasury function

## ASK A PROVIDER

### 52. Build versus Buy: Key considerations for financial institutions looking to capture the benefits of further e-FX and digital transformation

Olli Lämsä discusses some of the operational, strategic, regulatory and technical issues that banks and financial institutions should consider before deciding whether to build or outsource their e-FX and fintech requirements.

## FINTECH

### 54. How Electronic Money Institutions are promoting financial inclusion.

Lissele Pratt tells us more about how Electronic Money Institutions work and some of the ways they are helping people to take their first real steps into the financial system.

## COMPANIES IN THIS ISSUE

<b>B</b> BestX p42	<b>E</b> Euronext 24 Exchange p15 p10	<b>L</b> LCH LSEG p6 p21	<b>Q</b> Quod Financial p26
<b>C</b> Capitalix p54 Centroid Solutions p57 Citi p57 Crisil Coalition Greenwich p24	<b>F</b> FalconX p8 Finalto p51 FlexTrade p10 FXSpotStream p32	<b>M</b> MetaComp p10 Mondelez p48	<b>S</b> Saxo p5 SGX FX p19 smartTrade Technologies p17 Standard Chartered p8 Sterling Trading Technology p25 StoneX p29 Swissquote Bank p7
<b>D</b> 26 Degrees Global Markets p11 Deutsche Bank p22	<b>I</b> Ideal Prediction p42 ION p27 IPC OBC	<b>O</b> oneZero p42	<b>T</b> 360T p14 Trading Technologies Int p6 TreasurUP p52
		<b>P</b> PLUGIT p9	
		<b>N</b> New Change FX p45	

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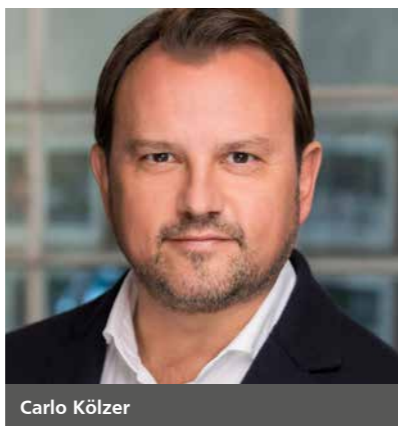
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## 360T launches its Digital Exchange 3DX

360T has launched its Digital Exchange 3DX as a Crypto Spot trading service, complementing the platform's current Crypto NDF offering. 3DX is an institutional-only, MiCAR (Markets in Crypto Assets Regulation) regulated trading platform for crypto-assets, authorized by BaFin and operating across the EU. Formerly known as DBDX, an initiative of Deutsche Börse Group's holistic Digital Strategy, 3DX has now been successfully merged with the Group's FX entity to achieve synergies

on organizational, regulatory and go-to-market dimensions.



Carlo Kölzer

The digital business is led by Carlo Kölzer, founder and CEO of 360T and Head of FX and Digital Assets of Deutsche Börse Group, who commented, "Not only does the launch of 3DX demonstrate Deutsche Börse Group's broader commitment to be a leader in the digital assets space, it represents a significant milestone in 360T's history as a global marketplace that aims to grow as a trusted partner in the evolving crypto landscape and in line with the increasing interests from our clients."

## TT FX connects with EBS and FX Spot+

Trading Technologies International, Inc. (TT), has announced that it has integrated with the EBS Market central limit order book (CLOB), a regulated, anonymous all-to-all matching platform. It also plans to offer EBS Direct, a relationship based disclosed platform, and CME Group's new FX Spot+ platform. With this new connectivity, TT is substantially expanding its FX liquidity alongside its award-winning futures and options offering. Tomo Tokuyama, TT's EVP & Managing

Director, FX, said: "This integration is an important part of our TT FX



Tomo Tokuyama

build-out and gives our clients access to another Tier 1 venue with the ability to trade seamlessly across asset classes. EBS Market has long been the go-to venue for market-making banks to hedge their FX risk, and for other large FX market participants to access firm liquidity in an all-to-all CLOB. TT will give market participants the ability to trade CME Group FX futures and options, EBS Market, EBS Direct, FX Link and the recently launched FX Spot+, all side by side in one EMS."

## LCH DigitalAssetClear now live

LSEG has announced that LCH SA has launched its new LCH DigitalAssetClear service. LCH DigitalAssetClear will provide market participants with access to the clearing of digital asset derivatives traded on GFO-X. LCH DigitalAssetClear has been developed to ensure digital asset derivatives can be cleared through a service that is secure, segregated, highly regulated and focused solely on digital asset derivatives.

Marcus Robinson, Head of

DigitalAssetClear and CDSClear, LCH, said: "We are delighted to launch this



Marcus Robinson

highly anticipated service from LCH SA. The regulated clearing infrastructure within LSEG's post trade ecosystem has allowed us to build something meaningful for our participants and address the availability of options for a rapidly growing asset class. It is essential that we find ways to offer regulated, segregated and trusted routes to provide customers with a diverse breadth of services and we are excited to continue working with GFO-X to offer a regulated marketplace for this asset class."

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## LSEG's SwapAgent completes first GBP/USD compression run

LSEG has announced that Post Trade Solutions has successfully completed its first GBP/USD multilateral compression run at SwapAgent, the service for the non-cleared derivatives market. Post Trade Solutions brings together Quantile, Acadia and SwapAgent to minimise risk, reduce cost, and improve capital efficiency. This development enables participants to target the majority of cross currency swaps and directly responds to the needs of market participants.

Andrew Williams, CEO of Post Trade Solutions, LSEG, said: 'At Post Trade Solutions, we are continually looking for ways to improve the post trade landscape and enhance our services as the market evolves. Adding multilateral compression runs to currency pairs at SwapAgent that are most demanded by our network provides customers with material gross notional reduction while increasing efficiency. We have already seen good adoption of the service, and we look forward

to delivering more compression at SwapAgent as the network grows.'



Andrew Williams

## FalconX and Standard Chartered announce strategic partnership

FalconX has announced a strategic partnership with Standard Chartered. In the first phase of the partnership, Standard Chartered will provide a comprehensive suite of banking services to FalconX globally, further strengthening the platform's offerings for institutional clients. The engagement will expand to include a broader range of offerings and mutual opportunities. Through this collaboration, FalconX will initially integrate Standard Chartered's banking infrastructure and access to

an extensive range of currency pairs, enhancing the speed, scale, and reliability of cross-border settlement



Matt Long

for its institutional client base. Matt Long, General Manager, APAC & Middle East at FalconX, commented: 'We are pleased to partner with Standard Chartered, one of the most forward-thinking global banks in digital asset adoption. At FalconX, we support trading and financing for some of the world's largest institutions in digital asset markets, and this relationship strengthens our ability to deliver robust banking and FX solutions to clients who rely on us to operate in crypto markets.'

## IPC Partners with Open Lake Technology

IPC has announced a strategic partnership with Open Lake Technology (OLT), a specialist technology provider in compliance automation and telephony performance management. This collaboration addresses the increasingly complex challenges faced by financial organizations - and other industry verticals - ensuring regulatory compliance across complex communications infrastructures. The partnership integrates OLT's digital technologies for centralizing, streamlining and automating compliance processes within IPC's Unigy platform, accessible alongside - and

interoperable with - other IPC and partner technology solutions. 'Financial institutions are under immense pressure to meet regulatory demands while optimizing operational efficiency. This partnership exemplifies the shared commitment of IPC and OLT to support businesses in building resilient, future-ready infrastructures that integrate compliance with overall performance management. Bringing OLT's state-of-the-art automation and monitoring capabilities within our global communications technology environment enables our customers to more easily streamline communications

compliance activities and meet regulatory reporting obligations with confidence,' said Colin Allison, Compliance Product Manager at IPC.



Colin Allison

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## 24 Exchange launches trading of FX NDS

24 Exchange has announced the launch of FX Non-Deliverable Swaps (NDS) trading, expanding the company's range of FX offerings on its robust global platform. The new FX NDS product mirrors the streaming functionality and workflow that 24 Exchange currently provides for FX Non-Deliverable Forwards (NDFs) trading. NDS trading features Standard Chartered Bank as the single counterparty, and is accessible via the 24 Exchange platform's user-friendly and efficient graphic user

interface (GUI). Importantly, the FX NDS product is available over the same API as other FX products ensuring efficient and easy access. "We're excited to bring Non-Deliverable Swaps to our platform, leveraging the strong demand and engagement we've seen from our institutional users in the NDF space," said 24 Exchange CEO and Founder Dmitri Galinov. "This launch reflects our continued focus on broadening access to innovative FX products through cost-efficient, technology-driven solutions

that enable users to efficiently maximize liquidity."



Dmitri Galinov

## KCx integrates proprietary data into FlexTrade's AI assistant

FlexTrade Systems and Kepler Cheuvreux, a leading independent European financial services company through its KCx execution services, has announced the availability of KCx's sophisticated analytical suite directly from FlexTrade's AI assistant, FlxAI, to deliver intelligent, high-value insights into client workflows. Trading desks are increasingly embracing conversational AI to streamline decision-making and extract actionable insights faster than ever before. Andy Mahoney, Managing Director, EMEA at

FlexTrade, stated: "Our existing integration with KCx's analytic suite has proved popular with clients



Andy Mahoney

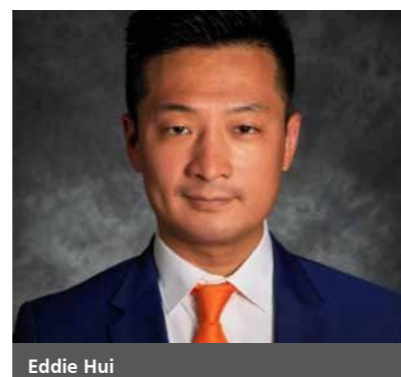
looking to source high-quality, adaptive market intelligence. Integrating the KCx data source into FlxAI was a natural step to extend the coverage to third-party data, which is relevant, useful, and timely to users. As the sell-side finds new and unique ways to deliver content to clients, we aim to provide a seamless interface to access all services available. With FlxAI, connected to an abundance of data sources and other AI agents, this will ensure interaction is completely natural."

## MetaComp launches StableX

MetaComp, a Major Payment Institution licensed by the Monetary Authority of Singapore (MAS) to provide Digital Payment Token (DPT) services and Cross-border Money Transfer services, has announced the launch of StableX, the next-generation infrastructure platform purpose-built for cross-border FX payments powered by stablecoins. Developed for cross-border merchants, institutions, payment service providers, fintechs, and global businesses, StableX enables always-on access to foreign exchange with the speed,

cost-efficiency, and reliability required in today's digital-first economy. StableX enables institutions to move money across borders more efficiently through stablecoin-powered FX rails that offer real-time execution, reduced friction, and continuous access to liquidity. "Legacy infrastructure has carried the industry far, but today's businesses need more agility", says Mr Eddie Hui, Co-President and Chief Operating Officer of MetaComp. "StableX bridges that gap by leveraging stablecoins to deliver FX and settlement infrastructure that

works in harmony with existing systems, enabling institutions and platforms to scale global flows with confidence."



Eddie Hui

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# ECNs:

## Providing a direct, transparent, and cost-effective alternative to traditional FX liquidity sources

Nicholas Pratt talks to leading ECN providers about the indispensable status of the ECN and the factors driving traders' demands



Image by Shutterstock



Nicholas Pratt

Electronic communication networks (ECNs) have become a critical and indispensable tool for FX traders. A report written by WBR Research and Euronext FX, published in late 2024, underlined the indispensable role that ECNs now have for FX traders. For the majority of the survey respondents (56%) access to data is the most valuable benefit of an ECN, along with diverse liquidity sources and comprehensive trading platforms.

"Accessing the FX market often means navigating a maze of fragmented liquidity, limited transparency, and restricted data availability," states Mercedes Ola, sales director for Euronext FX. "But there's a better way. ECNs (electronic communication networks) offer a more flexible, transparent, and efficient solution for buy-side clients looking to optimise their FX execution. By connecting you with a pool of liquidity providers optimised for your needs, ECNs put the control back in your hands and open up new opportunities to maximise returns."

### LIQUIDITY INSIGHTS

As a consequence of the demands of today's FX traders, ECN providers are looking to add advanced FX order management to further enhance execution efficiency, ensure better pricing and reduce market impact. "We offer insight on a number of

different levels," says Simon Jones, global head of product and liquidity, FX at LSEG. "Central to our offering is insight for Liquidity Providers (LPs) into how they are engaging with their clients, and the speed and depth of this information continually evolves."

"At the execution level there is now an embedded process which gives clients the ability to customise their panel of banks according to the outcome they want to achieve, or to source recommendations on the right algo for that pair and time of day," says Jones. "On a more custom level, we also have execution specialists who focus on how a clients' actions impact their LPs, helping bring greater understanding to that relationship so that both parties can engage more effectively."

As the aforementioned survey shows, ECNs are being increasingly recognised as invaluable sources of data that can be used to develop sophisticated trading strategies, enhance risk management and inform market microstructure research. "No individual client can experience the range of conditions and circumstances that the collective client base of an ECN can," says Jones.

"Harnessing that information and turning it into actionable decision points is where venues will differentiate themselves. Aggregation of interest is commoditised but designing workflows to adapt to conditions, fed by information about likely outcomes, will give clients greater control over their execution choices."

Jones also believes that ECNs will continue to grow in popularity with many FX market participants as the industry moves towards greater automation and algorithmic trading.

"Through our platforms, our aim is to scale back the need for the trader to touch the commoditised trade," says Jones.

"The work can be done in advance with the right automation tools – observe the conditions, decide the terms upon which you will trade, ensure you have the correct level of liquidity that reflects a best execution mandate, execute, allocate, book – all no touch. What is changing is the ability for those decisions to adapt as information changes, to date it has been too static. The trader's attention has to be on where the greatest discretion is required and automation tools free them up to do that."

### FLEXIBLE TRADING

Another ECN provider aiming to offer more flexibility to FX traders is 360T, the Deutsche Boerse-owned FX trading platform that caters for both buy and sell-side firms. According to Vidura Seneviratne, head of spot strategy at 360T, the platform offers a "uniquely flexible and efficient" trading environment by integrating both disclosed and anonymous liquidity into a unified environment. "This setup provides buy-side clients



Simon Jones

**"No individual client can experience the range of conditions and circumstances that the collective client base of an ECN can."**

**"As the FX industry continues to evolve toward automation, ECNs are ideally positioned to support both systematic and hybrid trading models."**



Vidura Seneviratne

with broad access to liquidity while reducing fragmentation and operational complexity. With ultra-low latency, deterministic infrastructure and real-time data streaming, GTX ensures reliable execution performance that supports a range of trading strategies and enhances transparency," says Seneviratne.

"Moreover, clients already connected to 360T through any other product can easily access GTX using existing API or GUI connectivity, eliminating the need for extensive new technical builds. This interoperability allows clients to scale their operations rapidly and access liquidity with minimal onboarding hurdles, while benefiting from tools that support both passive and immediate trading styles." ECN providers are also looking to put more control back into their clients' hands to open up new opportunities to maximise returns by connecting them with pools of liquidity providers that will cater to their specific needs.

"360TGTX gives clients control over how they access and manage liquidity through features such as firm pricing, last-looked liquidity, and access to dark pools," says Seneviratne. "This flexibility empowers both makers and takers to choose how they engage, based on

their execution goals and risk appetite. Clients can also semi-automate their decisions using logic built into the platform, enabling them to dynamically select the best way to interact with different liquidity pools."

"Custom liquidity pools can be constructed and maintained by segment, such as for systematic funds, agency brokers, or regional banks and credit-constrained clients can access additional opportunities via Prime-of-Prime arrangements. All of this is enhanced by 360TGTX's ability to tap into the firm's broader network, offering clients unmatched depth, diversity, and control across counterparties," says Seneviratne. The direct interaction between buy-side firms and multiple liquidity providers in a single session that is facilitated by ECNs brings multiple benefits, according to Seneviratne.

"360TGTX enables clients to interact directly with a diverse mix of bank, non-bank, and systematic liquidity providers in real time through a consolidated trading interface. The ability to simultaneously engage with disclosed, anonymous, and semi-disclosed liquidity within the same session significantly enhances execution quality and transparency," says Seneviratne.

Semi-disclosed models, in particular, provide a valuable balance between access and efficiency by reducing the need for extensive onboarding, credit negotiation, and legal papering, says Seneviratne. "This helps clients go live faster without compromising on control. With both GUI and API access options, the platform caters to a broad spectrum of users, from manual traders at regional banks to high-frequency strategies at hedge funds."

Order management functionality is also another area of development for ECN providers. "GTX supports a suite of advanced order management tools including sweepable logic, pegged orders, mid-point matching, and full amount trading. All of these are designed to provide traders with the ability to control market impact, timing, and visibility. These features can be accessed via GUI or API, ensuring broad usability," said Seneviratne.

"Additionally, by integrating with 360T's broader execution infrastructure, such as the execution management system (360T EMS), and Deutsche Borse Group's wider network of companies, like the independent algo-provider Quantitative Brokers, GTX enables clients to build multi-layered execution workflows," says Seneviratne. "This allows clients not only to use existing tools but also to experiment with new execution strategies and structures in a flexible, modular environment tailored to their needs."

As previously stated, ECNs increasingly recognised as invaluable sources of data, so what are ECN providers doing to cater to this trend? "The data generated by 360TGTX's deterministic and low-latency environment is not just rich but actionable," says Seneviratne. "When properly organised, this data becomes a powerful foundation for experimentation, allowing the platform and its clients to provide intelligent suggestions and guidance with meaningful explainability. The richness of GTX data—paired with the breadth of our client base—enables learning loops that support both alpha generation and risk control. We are exploring how to embed AI directly into liquidity workflows, transforming this data into real-time, decision-enhancing insights."

"Since 360TGTX spans a broad and diverse client base, it supports the learning and optimisation of trading models across multiple user types and



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## ECNs: providing a direct, transparent, and cost-effective alternative to traditional FX liquidity sources

market conditions,” says Seneviratne. “Disclosed and undisclosed trading activity can either be analysed separately or, in some use cases, combined to answer broader execution or liquidity questions, providing a more holistic view of market behaviour.”

Some ECNs are also looking to enhance their value proposition by, for example, investing in next generation technologies like AI and machine learning, making themselves Global FX Code-compliant, handling credit and expanding their product mix beyond FX.

“360TGTx is actively exploring next-generation technologies, including AI-driven liquidity management and real-time low-latency infrastructure enhancements to better support systematic trading and adaptive execution models. The platform is fully compliant with the FX Global Code, reinforcing its alignment with global best practices and trust in execution,” says Seneviratne.

“360TGTx has also expanded its offering into metals and NDFs, asset classes that are fully integrated into the same platform infrastructure, credit

processes, and GUI/API environments used for spot FX,” says Seneviratne. “This approach allows clients to scale across products without duplicating effort, achieving operational consistency while diversifying liquidity access.”

Seneviratne also believes ECNs will continue to grow in popularity with many FX market participants as the industry moves towards greater automation and algorithmic trading. “As the FX industry continues to evolve toward automation, ECNs like 360TGTx are ideally positioned to support both systematic and hybrid trading models. The platform offers deterministic latency and real-time market data essential for algo execution, while its GUI ensures that even clients without in-house technology can access institutional-grade liquidity.”

“360TGTx is part of a one-stop shop within the 360T ecosystem, bridging disclosed and anonymous flow while offering smart credit facilitation and advanced execution tools. Unlike many ECNs focused on a single segment or geography, GTX’s strategic edge lies in its ability to connect institutional and

regional flow, GUI and API users, and systematic and discretionary models—all within a unified, scalable framework. This structure not only supports current client needs but also ensures scalability as their strategies and infrastructure evolve,” says Seneviratne.

### CUSTOMISED LIQUIDITY

One of the attractions of ECNs is the ability to offer customisable access to liquidity pools tailored to their specific trading needs, thereby opening new opportunities to maximise returns, says Vinay Trivedi, CEO of Singapore’s SGX CurrencyNode. “Our ECN connects buy-side clients directly with multiple liquidity providers—including top-tier banks, market makers, and alternative sources—aggregating deep pools of liquidity that reduce price slippage and trading costs.”

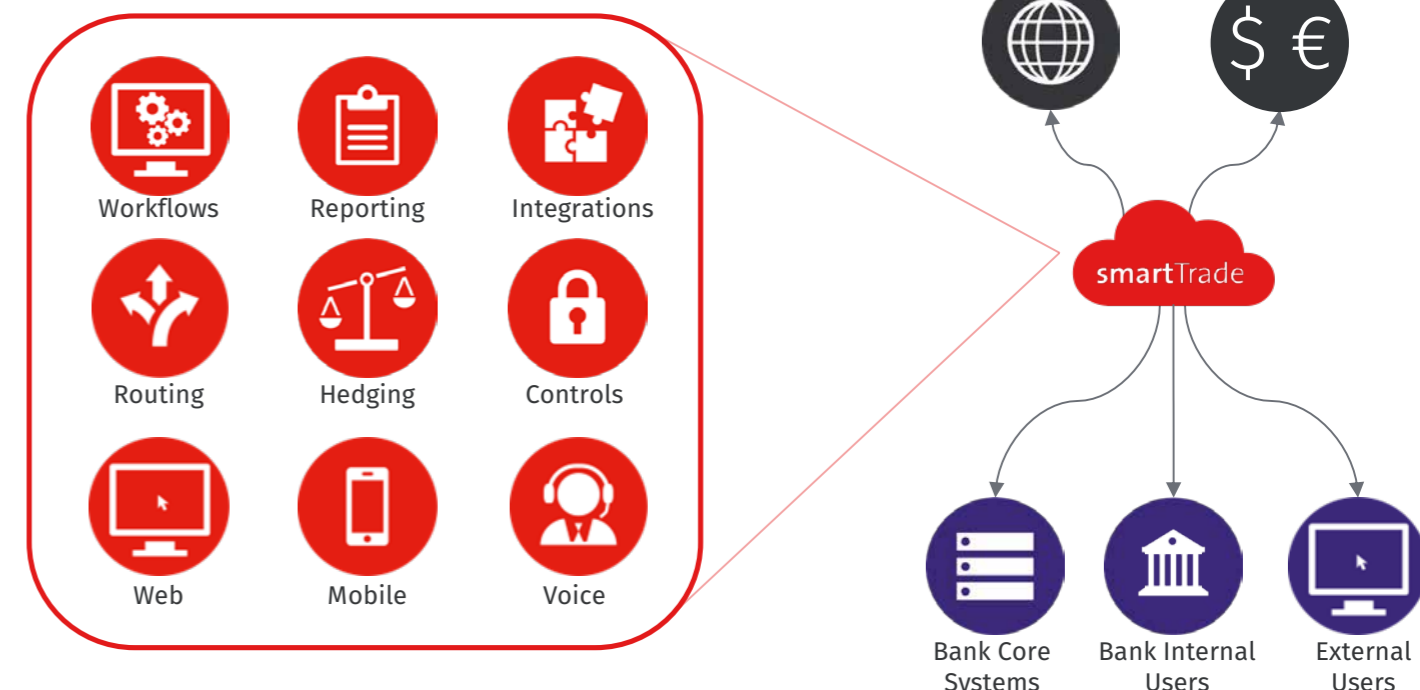
“This connectivity allows clients to choose the type of liquidity they want, such as firm or last look pricing, hidden orders to minimise signalling, and selective counterparties, giving them greater control over execution strategies. Advanced analytics and liquidity management tools help clients optimise order placement and improve fill quality by understanding market impact and execution performance,” says Trivedi. Additionally, ECNs facilitate efficient credit frameworks that consolidate credit lines, enabling seamless access to a broad portfolio of liquidity without fragmentation, which enhances risk management and trading efficiency, says Trivedi. “By blending disclosed, undisclosed liquidity pools and buy-side order book (in the case of SGX CurrencyNode coming from our network of clients on BidFX and Maxxtrader) with innovative matching technologies across multiple data centres as NY4, LD4, TY3 and SG1, ECNs further enhance execution opportunities while ensuring compliance with market standards, fostering a transparent and reliable trading environment. This combination of technological

 smartTrade

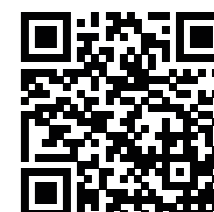
# Turning Payment Flows into Revenue Streams

- A Complete Range of Currencies, Products, and Transaction Types
- Intuitive Workflows for Simple and Complex Payments
- Connecting to FX Liquidity with Dynamic Payment Routing
- Ready for ISO 20022 Compliance

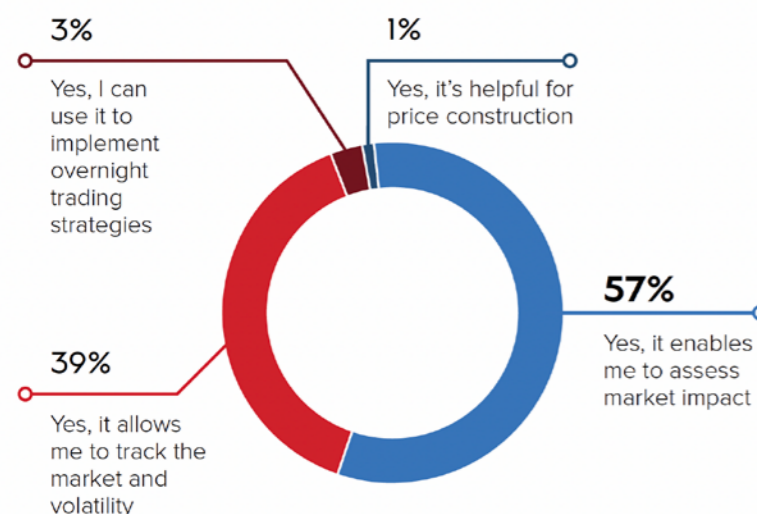
## CBP Architecture Overview



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### Do you see value in ECNs as a good source of quantitative data?



Source: Transforming the FX Trading Desk: Strategies for Market Resilience  
WBR Research and Euronext FX Q3 of 2024 survey

**"Ultimately, the data ecosystem fostered by ECNs contributes significantly to the development of more resilient, transparent, and efficient financial markets."**



Vinay Trivedi

innovation, customisable liquidity, and enhanced transparency puts more control in clients' hands, enabling them to tailor their FX execution to their unique objectives and thus maximise potential returns."

The direct interaction between buy-side firms and multiple liquidity providers facilitated by ECNs provides multiple benefits to market participants, says Trivedi. "One of the foremost advantages is access to deep, aggregated liquidity pools sourced from a diverse array of participants-including top-tier banks, market makers, and alternative liquidity providers. This aggregation results in tighter bid-ask spreads, reduced slippage, and improved pricing opportunities, enabling buy-side traders to execute large orders with minimal market impact."

In addition to liquidity depth, ECNs provide unparalleled real-time transparency by displaying live order books and detailed market depth information, says Trivedi. "This visibility empowers traders to make well-informed decisions based on current supply and demand dynamics, enhancing their ability to optimise execution strategies. By eliminating

intermediaries and facilitating direct order matching, ECNs also deliver faster, more efficient trade execution with significantly lower transaction costs."

"Furthermore, this direct connectivity supports the deployment of advanced trading strategies through sophisticated order types and automated execution capabilities, offering traders greater flexibility and control over their outcomes. Collectively, these features not only improve execution quality and reduce costs but also unlock new opportunities for buy-side firms to maximise returns within a single trading session, reinforcing the critical role of ECNs in today's evolving FX landscape," says Trivedi.

Leading ECNs are also addressing FX execution by offering sophisticated order management functionalities designed to enhance efficiency, improve pricing and minimised market impact, says Trivedi. "For instance, platforms like SGX CurrencyNode provide a comprehensive suite of advanced order types-including stop losses, trailing stops, iceberg orders, TWAPs and basket algorithms that empower traders with greater control over their transactions, enabling them to tailor execution strategies to specific risk management and trading objectives."

"Beyond order types, ECNs offer highly customisable liquidity options, allowing participants to select execution modes such as firm or last look liquidity. Traders can also leverage hidden order types to reduce signalling risk and selectively choose counterparties, further optimising execution outcomes," says Trivedi.

SGX CurrencyNode has introduced innovations like enhanced skew protection, which minimises information

leakage on quotes and orders, alongside a variety of order management mechanisms such as full amount, skew safe, collapse to mid, pegs, and dark orders, says Trivedi. "These tools can be combined flexibly, enabling clients to design bespoke execution setups that precisely align with their trading flows."

"Moreover, we collaborate closely with FX market participants to build, optimise, and maintain bespoke liquidity pools tailored to individual needs. By integrating these customised pools with cutting-edge matching technology, we significantly improve order fulfilment rates and execution quality. This holistic approach not only enhances service quality but also positions us as essential partners for buy-side firms seeking to maximise returns through smarter, more efficient FX trading," says Trivedi.

ECNs have become indispensable sources of granular market data, providing deep insights into order flow, trade executions, and limit order dynamics-key elements for understanding price formation and overall market behaviour, says Trivedi. "This rich dataset empowers traders to craft sophisticated strategies by revealing how individual trades and order placements influence price discovery and market volatility. With such detailed information at their disposal, market participants can more accurately time their entries and exits, gaining a crucial competitive advantage through enhanced informational awareness. SGX CurrencyNode offers a rich data set and analytics covering spread report, fill ratio, mark-outs etc coupled by AI backed actionable insights via in-house developed tool MaxxAI, which helps both market makers and taking participants to optimise their execution."

Beyond the development of trading strategies, the comprehensive data supplied by ECNs plays a pivotal role in advancing risk management

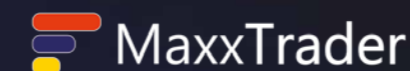
# Your gateway to the global FX ecosystem, empowered with cutting-edge technology

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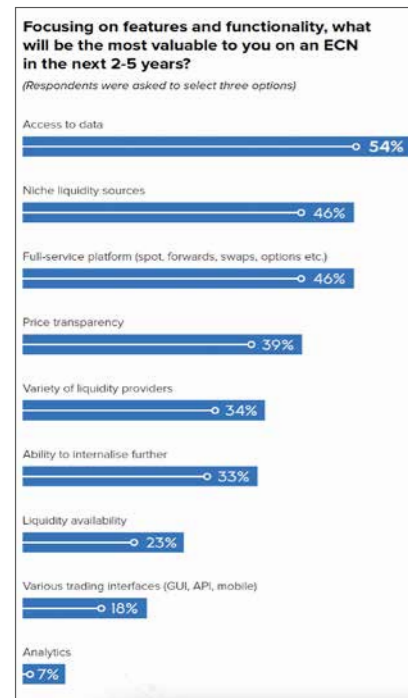
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## ECNs: providing a direct, transparent, and cost-effective alternative to traditional FX liquidity sources



Source: Transforming the FX Trading Desk: Strategies for Market Resilience WBR Research and Euronext FX Q3 of 2024 survey

frameworks, says Trivedi. "Real-time transparency into liquidity conditions, bid-ask spreads, and order book depth allows firms to anticipate potential market impact and adjust their trading tactics dynamically to mitigate risk.

"Furthermore, ECN data has become foundational for both academic and industry research into market microstructure, enabling rigorous analysis of how trading protocols, transparency, and information asymmetries affect market quality and efficiency. By leveraging this data, researchers and practitioners alike can refine algorithmic trading models, optimise execution strategies, and deepen their understanding of how public announcements and private information drive price dynamics. Ultimately, the data ecosystem fostered by ECNs contributes significantly to the development of more resilient, transparent, and efficient financial markets," says Trivedi.

As already mentioned, leading ECNs are significantly enhancing their value proposition by integrating next-

generation technologies such as AI and ML to optimise trade execution, liquidity management, and risk assessment. These innovations enable faster, more accurate, and cost-efficient FX trading solutions that meet the evolving demands of market participants. At the same time, ECNs are committing to full compliance with the FX Global Code—a global framework that promotes ethical conduct, robust governance, transparent execution, effective risk management, and efficient post-trade processes—thereby strengthening market integrity and fostering client trust. For example, SGX CurrencyNode enforces rigorous KYC/AML procedures and requires all participants to adhere to the Global FX Code, ensuring best practices across its platform.

Beyond spot FX, ECNs are broadening their product offerings to include non-deliverable forwards (NDFs), FX swaps, and multi-asset strategies, supported by advanced algorithmic trading and automated matching technologies that enhance price discovery and execution quality, says Trivedi. Credit management is also evolving, with ECNs integrating sophisticated credit risk tools and consolidating credit lines to provide seamless access to diverse liquidity pools while minimising counterparty risk.

"SGX CurrencyNode, for instance, employs dynamic credit checks across entities and data centers to optimise credit utilisation. Furthermore, we tailor solutions for algorithmic traders by offering curated liquidity pools, low-latency API connectivity, and flexible order types aligned with various trading strategies, empowering clients to achieve superior execution outcomes," says Trivedi.

"By prioritising regulatory compliance, investing in cutting-edge technology, expanding product diversity, and enhancing credit facilities through CCP, PFI, and Prime of Prime routes, (for

example SGX CurrencyNode offers credit intermediation via 10 clearing banks), ECNs are positioning themselves as comprehensive FX trading hubs. This holistic approach not only meets the complex needs of today's market participants but also opens new avenues for maximising returns and sustaining long-term growth in a competitive FX landscape."

As the FX market increasingly embraces automation and algorithmic trading, ECNs are poised to grow in popularity due to their critical role in supporting these advanced trading paradigms, says Trivedi. "ECNs provide direct market access to a broad spectrum of liquidity providers via a single electronic platform, enabling instantaneous trade execution with minimal latency—an essential feature for high-frequency and algorithmic strategies that demand speed and precision."

"Their transparent pricing and real-time order book data empower algorithms to optimise execution by securing the best available prices while minimising market impact. Additionally, ECNs offer advanced order types and customisable liquidity options tailored to sophisticated algorithmic needs, enhancing risk management and improving fill quality. The removal of dealing desk intervention and the provision for anonymous trading further promote fairness and reduce information leakage, which is crucial for algorithms seeking to minimise signalling risk," says Trivedi.

"Complementing these capabilities, the proliferation of high-quality analytics tools has become instrumental in refining trading strategies. This integration of cutting-edge analytics with ECN infrastructure empowers both institutional and retail participants to harness technology effectively, achieving superior execution quality and enhanced cost efficiency in today's fast-evolving FX landscape," he concludes.

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## LSEG FX



# Electronic FX in restricted markets

By Arijit Ganguly, Head of Asia EM FX eTrading & NDF Asia at Deutsche Bank



Arijit Ganguly

The electronification of FX, particularly spot, has been extensively documented, making it amongst the most liquid financial markets. However, certain segments of this, within emerging markets, remain fragmented and offer limited access due to restrictions on capital or current accounts, or both. These restrictions, often introduced during periods of financial stress to prevent capital outflows and speculative activities, have not always been reversed, leading to the term ‘restricted’ markets. In such scenarios, parallel offshore markets often emerge, allowing for hedging exposure when access to deliverable spot or forward markets is restricted. Each restricted market has its own nuances and regulations, and Deutsche Bank’s extensive onshore presence means this is a real area of strength for us and consequently for our clients.

## MANUAL VS. ELECTRONIFIED MARKETS

Restrictions do not necessarily mean that these markets have bypassed electronification. Depending on the size of the economy, countries like India and South Korea have developed local electronic trading platforms for interbank FX trading. While these platforms remain closed to foreign participants, they often have substantial trading volumes with liquidity comparable to more open markets.

Domestic market data and API-based hedging, where available, enable electronic pricing. However, foreign access typically involves additional prerequisites such as document checks and transaction reporting to meet regulatory requirements, making them harder to access. Most of these markets also operate within fixed trading hours, preventing round-the-clock availability.



Most restricted markets operate within fixed trading hours, preventing round-the-clock availability

Therefore, while these markets may be electronified, restricted access often requires manual intervention in parts of the FX workflow.

## SHIFTS IN MARKET DYNAMICS

Several changes are underway in restricted markets. Firstly, there is a growing demand for faster and more transparent execution. Asset managers increasingly expect the same level of access to these markets as they have with more developed spot markets. Technology solutions like Deutsche Bank’s HausFX are designed to automate these workflows, allowing clients to access the markets and meet regulatory obligations without increasing manual work or operational risk. Secondly, restrictions on accessing onshore markets can stifle capital flows and, in some cases, prevent market inclusion in major indices. Many local authorities are now keen to deepen



The government of South Korea has eased regulations to enhance access to its FX and bond markets

their financial markets and attract foreign investment, prompting moves to liberalize FX regulations.

## CASE STUDY: SOUTH KOREA

South Korea recently undertook a major shift after decades of tight controls. The government eased FX regulations to enhance access to its FX and bond markets. Foreign investors with an Investment Exclusive Account (IEA) were granted access to the onshore FX market under the Registered Financial Institution (RFI) scheme. Documentation checks before every transaction were eliminated, and reporting requirements were lightened. Trading hours were extended to 2:00 a.m. local time to accommodate global participants. This initiative was well

received, allowing foreign participants who had relied on the offshore NDF market to access the onshore market easily via RFIs. Interbank liquidity increased, and extended trading hours enabled hedging flows through the London close. These regulatory reforms may have been instrumental in South Korea’s inclusion in the World Government Bond Index (WGBI), setting a precedent for the benefits of easing restrictions.

## FUTURE PROSPECTS FOR OPENING MARKETS

At Deutsche Bank, we have been a key partner to both clients and local authorities in the journey of easing market access. Extended trading hours allow clients to operate in their



Asset managers increasingly expect the same level of access to restricted markets as they have with more developed spot markets

preferred time zones, and there is growing demand for end-of-day fixing services that align with broader FX rebalancing flows. Clients no longer have to wait for the local market to open—they can hedge exposures as soon as needed, whether for equities, bonds, or portfolio rebalancing. This unlocks opportunities for automated workflow solutions within HausFX, tailored to the timing and nature of capital flows. Licensing will remain a factor for operating in onshore markets, and how this evolves will be worth watching. As these markets mature, we see significant demand from clients for a broader suite of execution tools, similar to those they are familiar with from G10 markets, such as algorithmic execution and electronic order capabilities.

## IMPACT ON DOMESTIC PLAYERS

The opening of restricted markets does affect domestic players, though not necessarily negatively. Domestic banks often focus on local clients, while foreign investors typically access the market via global banks, which may partner with local institutions or use their own branches. This partnership could see increased demand from global banks for services such as reporting and settlement looking to avoid operational risks and instead focus on client execution. Local markets also deepen through foreign participation. For example, Korean banks now have new counterparties to hedge risk, reducing transaction costs for clients. Given that local markets have historically been traded on voice, especially on the client side, electronification typically increases both competition and market data availability, consequently improving transparency and lowering execution costs, including hedging costs for local players. On balance, it’s a natural progression that benefits the majority of market participants.

# How FX trading firms can exploit the power of next generation order management systems



OMS



Paul Golden

A new report from Crisil Coalition Greenwich (OMS benchmarking: providers, market sizing and what's next) highlight the challenge of keeping up with the rapid transformation of front-office trading technology systems.

OMS providers are adding capabilities like portfolio modelling tools, compliance and third party connections. They are also enhancing workflow capabilities such as real-time compliance checks and other supportive capabilities, as well as

product or function-specific features like hedging, trading tools and portfolio management functionality. The pace of change is unlikely to slow with systems vendors investing 20% or more of product revenue in R&D associated with their platforms. Vendors are working to add open APIs, automation and cloud-native offerings to enable version-less updates and faster data crunching and output. Mobile capabilities and web-based apps are also on the horizon, while some vendors are adding data management capabilities and new analytics like pre-trade TCA and liquidity tools.

An order management system will streamline the entire order and trade life cycle for an investment firm or broker-dealer, making it faster, more accurate and more controlled. This obviously strengthens the compliance and auditing required in regulated markets and while FX is an unregulated market, market participants are regulated and are subject to compliance requirements.

## FUNCTIONALITY ACROSS ASSET CLASSES

There are some common features or requirements of an order management system across any asset class explains Mike Baradas, OMS product manager at Sterling Trading Tech. "In terms of technology, the FIX messaging system is standard across most asset classes, including FX," he says. "But FIX only covers order routing and order execution reports. An OMS that has full API architecture can integrate with the different systems that could be involved in the investment or trading lifecycle of a particular firm."

OMS has evolved from a functional necessity to a strategic weapon - eliminating human error, maximising automation and transforming how institutional investors command fragmented markets.

That is the view of Medan Gabbay, chief executive officer at Quod Financial, who goes on to outline some of the key features and functionality.

## How FX trading firms can exploit the power of next generation order management systems

**"Most OMS platforms fundamentally lack the functionality required to thrive in a world driven by data intelligence, which is why many larger firms choose to build their own systems."**



Medan Gabbay

fragmented liquidity, handle multi-listed instruments and dynamically route orders with algorithmic intelligence across opaque venues. He warns that many systems have shortcomings that have persuaded firms to develop their own solutions. "Most OMS platforms don't just need additional modules to support the needs of market participants," says Gabbay. "They fundamentally lack the functionality required to thrive in a world driven by data intelligence, which is why many larger firms choose to build their own systems."

"Today's best OMS platforms are not just trade routers," he says. "They are AI-fuelled, low latency ecosystems enabling predictive analytics, intelligent automation, risk control and seamless multi-asset trading out of the box."

Gabbay observes that an FX-ready OMS must do more than handle tickets. It needs to understand

"Vendor products often fail to address the complexities of managing multi-asset strategies and data-driven decision making," he continues. "Attempting to retrofit such capabilities into existing products is either prohibitively expensive or so misaligned with the core design that it is nearly impossible to achieve."

From a bank perspective, some of the main drivers around needing an OMS relate to an obligation to enforce need-to-know policies. The order book exposes a lot of information to trading desks and sales desks as to potential price action at various different price levels and banks need to ensure that only the people who should see an order can see it to ensure information is not leaked into the market as to where there's interest.

### ELECTRONIFICATION IS DRIVING DEMAND

There is also increased desire to electronify workflows explains Cormac Walsh, head of FX trading products at ION Markets.

"Banks want to capture orders electronically, so we are highly integrated with their digital strategy to capture orders from single dealer platforms, sales platforms, multi-dealer platforms, APIs and all sorts of internal divisions within the bank and to route those orders to the appropriate algorithms to



OMS vendors are working to add open APIs, automation and cloud-native offerings to enable version-less updates and faster data crunching and output



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"An OMS that has full API architecture can integrate with the different systems that could be involved in the investment or trading lifecycle of a particular firm."



Mike Baradas

orders for FX cash, modern systems also extend into cross-asset FICC workflows – handing orders on vol, fixed income and commodities. The relationship between OMS, PMS and EMS front office solutions has evolved according to Audrey Costabile, senior analyst for Coalition Greenwich market structure & technology.

"As technology and data become more integrated, the lines between PMS, OMS and EMS solutions have blurred," she says. "Although optimisers are offered a la carte by some vendors, OMS solutions providers are including them in their offerings. Most equity traders prefer a standalone EMS but this is also changing due to the desire for a multi-asset class EMS, more trader/portfolio manager overlap and firm size - smaller firms may prefer more front-to-back boxes."

automatically execute - and only on an exceptional basis to post them for a trader to manage," he says.

On the question of how OMS solutions are tailored and engineered to deal with the specific requirements of FX, Walsh says that although order management systems traditionally focused on automated management resting, fixing and algorithmic

ION Markets FX does a lot of work automatically capturing flow generated from PMS systems but also from other not-so-obvious divisions of a bank such as custody, transaction banking or portfolio hedging.

"All these activities generate orders and there is a lot of focus on being able to automatically capture those orders so that if a client is doing, for example, a portfolio rebalancing on their equities portfolio at the end of the month and there is FX exposure generated on that, they are able to automatically post that FX exposure as orders into the OMS," says Walsh.

#### OMS STRADDLES MULTIPLE SYSTEMS

According to Baradas, the OMS can be seen as an umbrella platform that bridges the PMS and EMS, whether it is controlling routing of orders to different exchange venues/liquidity destinations or handling the risk controls to make sure orders are not oversized or routed to the wrong venues.

AUTOMATION

OMS HAS EVOLVED FROM  
A FUNCTIONAL NECESSITY  
TO A STRATEGIC WEAPON -  
ELIMINATING HUMAN ERROR,  
MAXIMISING AUTOMATION



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How FX trading firms can exploit the power of next generation order management systems

“As technology and data become more integrated, the lines between PMS, OMS and EMS solutions have blurred.”



Audrey Costabile

create real time intelligence from pre-trade to post-trade.

On the main challenges faced when consolidating these systems, he observes that OMS serves as the central hub, balancing a wide array of functions with often conflicting demands. While PMS prioritises workflows over performance, EMS focuses on performance and data intelligence. “Positioned between the two, OMS frequently lacks the technical and functional capabilities necessary to effectively bridge these processes,” says Gabbay. “The idea of consolidating PMS, OMS and EMS into a single solution feels unrealistic. Instead, the most immediate benefits will likely come from leveraging PMS for core operations while adopting a data-driven OMS/EMS for advanced needs.”

“This includes margin calculations,” he says. “When you get into derivatives trading there are very specific regulatory or clearing requirements in terms of margin calculations that the order management system will handle.”

Gabbay believes the future belongs to those providers who can consolidate OMS, PMS and EMS into a single adaptive fabric, breaking silos to

Currently, the industry - across all asset classes - is heavily focused on cost-cutting, with an ongoing race

to reduce vendor spending. This environment is pushing clients toward all-in-one solutions largely out of fatigue and a lack of willingness to invest in alternatives.

“While some vendors offer more modern solutions unburdened by legacy systems, they remain rare,” suggests Gabbay. “Significant changes in industry mindset and investment would be required for such alternatives to gain widespread adoption.”

As technology becomes an increasingly critical differentiator, funds are showing less interest in investing in it, he adds. “This trend will likely lead to further consolidation as firms lacking the necessary technical expertise find themselves unable to compete. The buy-side is, in effect, setting itself up for failure in the medium term. Sticking to outdated thinking in an era that demands innovation will inevitably drive systemic change.”

CLOUD OFFERS UNIVERSAL OPTION

Gabbay’s response to the question of what deployment choices are available for firms of different sizes who are looking for OMS to automate their order flows from low-touch to no-touch is that whether the client is a boutique desk or a global titan, cloud native microservices allow low-touch to no-touch trading without being shackled to legacy anchors. When asked about the deployment choices available, Baradas observes that the traditional software solution for an order management system for a larger firm is typically an on-premise solution.

Then there is the cloud option, which is typically more scalable and faster in terms of innovating and developing the system.

“In between you have a solution where the database remains in your own data centre but you want the user interface available on the web or on a mobile platform,” says Baradas. “This is what you would call a hybrid solution between on-premise and cloud. Typically it is an API architecture that makes that happen, connecting with the best-in-class solution you are looking to provide to your customer.”

The Crisil Coalition Greenwich report notes that as professionals at buy-side firms gravitate toward multi-asset class solutions, the management of workflows - including books of record, compliance checks, audit trails and other downstream capabilities - is changing the look and feel of vendor OMS solutions.

Market participants are obviously interested in how the ongoing development of OMS is driving innovation and efficiency in multi-asset sell-side trading. Baradas refers to this as a technology issue in terms of being able to handle high messaging rates.

“There is not a huge difference between what you would call an institutional firm (where they may only have large customers with 500 or 1,000 accounts but are actively trading or have active transactions that run into the hundreds, thousands, or millions of transactions per day) and a retail broker where you can have smaller account sizes but they are going to have thousands, tens of thousands or even hundreds of thousands of accounts,” he says. From a technical perspective, the messaging requirement is the same so the need is for a technical architecture that is high throughput and low latency.

AI BOOSTING SYSTEM SOPHISTICATION

Multi-asset sell-side trading is no

“The OMS must scale to support the most volatile market conditions and provide enterprise-grade resilience with instantaneous failover across all tiers.”



Cormac Walsh

longer a privilege of the giants, says Gabbay. “AI-driven OMS platforms now weaponise smaller players with execution precision, predictive analytics and scalable automation,” he adds.

Gabbay recommends FX market participants choose an OMS partner rather than just a vendor - one that brings native FX knowledge, AI-powered decision support, cross-venue routing agility and a roadmap beyond today’s liquidity fragmentation.

When it comes to implementation, Baradas says the sell-side has a decision to make on buy versus build. “Typically, what we see smarter firms do is buy solutions that handle functions that are standard across every asset class such as regulatory requirements, risk controls or margin calculations,” he says. “They are then spending their investment dollars on building a unique customer experience.”

Costabile recommends working with a vendor that covers a range of products.

“For instance, can all FX and derivatives be analysed using one vendor?” she says. “Can FX hedges be automatically generated for equities trading? If an OEMS is desired, how does execution work? Is there interoperability with different venues? Are the tools for best execution and protocols/algos coming from the venue or the OEMS? Is the solution open and modular, allowing for tweaks necessary for a particular strategy? Finally, how is support assigned and

is it available at all times?”

Operational stability is one of the first things to consider when looking for a potential OMS provider suggests Walsh.

“An OMS outage isn’t simply system downtime – it is equivalent to flying blind with live risk,” he says. “This creates significant market, operational and reputational risk. The OMS must scale to support the most volatile market conditions and provide enterprise-grade resilience with instantaneous failover across all tiers.”

Another consideration is performance at the tail end of the performance curve. In the most volatile conditions, can the OMS keep up with the market if prices are moving 20-50 times a second across thousands of orders in hundreds of pairs where each rate update is potentially creating an order trigger event?

“The OMS needs to be designed to be very operationally stable but also capable of performing in the most extreme conditions,” adds Walsh.



Currently, the industry - across all asset classes - is heavily focused on cost-cutting pushing clients toward all-in-one solutions

# FXSpotStream:

## Still hungry to succeed and provide the industry's most cost effective trading model for both the buy-side and sell-side alike

After joining the company as CEO in January 2024, Jeff Ward and FXSpotStream embarked on a record setting year. Now, in Q2 of year two, we caught up with him again to see if he felt the growth was sustainable, or a benchmark on which to build.

**Jeff, thank you for taking the time to speak with us. 2024 was a historic year for the company; could you have asked for a better way to start your new role?**

I had said before the interview process that it was the FSS role or nothing for me. I had seen the company from the outside and admired how they did business and what they stood for. Once I started in January, I quickly realized that I had been right in my assumptions. There was a very high standard set for the workload, and it was great to join a team that was highly motivated to succeed.

In January we set a new overall ADV record, and things did not slow down after that – we went on to set six new overall ADV records in 2024. What was more impressive though was how these records were being set. While Spot has always been the strength of the Service, we were taking significant steps in all products, most notably in FX Swaps and NDFs.

**Were there any surprises when you came into the role?**

I don't know if I'd call it a surprise, but

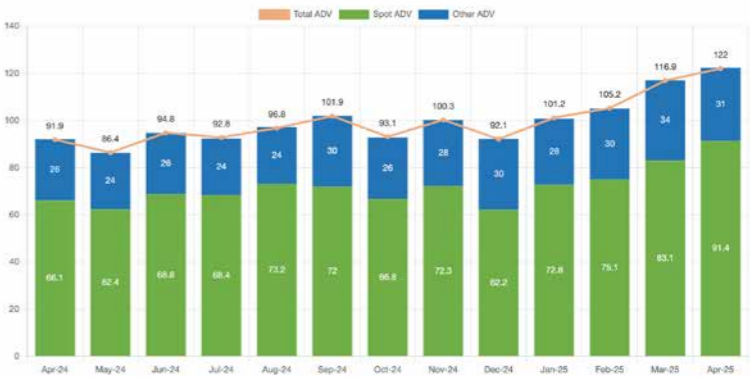
I was very impressed with the level of support offered to clients and LPs by the FSS team. It was something I had been aware of in the past, but across the board, there is a level of proactivity that is extremely reassuring for those connected to FSS. We are always looking to get ahead of a potential issue and find answers as quickly as possible. It's a level of care that is often lost as a company grows, but here, there is a high level of pride taken by everyone to ensure that the level of service does not drop.

**And how has 2025 started for FXSpotStream?**

From a volume perspective, 2025 has started with a bang; February, March and April providing consecutive record months from an ADV standpoint. From an overall standpoint, our ADV is up 38.97%, while our Spot ADV is up 39.66% YTD (January-April 2025 vs 2024).

While we have certainly enjoyed the fast-paced start to the year, what is most important to our clients is that the service has operated extremely well, especially in terms of performance during periods of high volatility. Our reject rate has remained consistently low, which I would put

FXSpotStream® Monthly Volumes



\*volumes in USD billions, single count, for all streaming and matching products

Jeff Ward



While we have certainly enjoyed the fast-paced start to the year, what is most important to our clients is that the service has operated extremely well, especially in terms of performance during periods of high volatility

down to our fully upgraded network and trading infrastructure, but also the work done by our Support Team to be proactive and get ahead of potential issues.

**With such a strong start to your tenure, where do you go from here?**

While it has been a tremendous start to the year for the Service, it would

not have been possible without the work that our CTO, Tom San Pietro and his team put in migrating the entire Service to a new Ultra Low Latency Network (ULL).

Volumes have continued to grow rapidly over the Service and our job is to ensure that our clients can always access the market confidently, especially when there are large global events that are driving market activity. As with any technology, over time it can become outdated. Two years ago, we began the huge task of migrating all clients and LPs to a new network that aimed to deliver market data with a maximum latency time of no more than 250 microseconds. While many will reference average latency times, and we agree there is value in doing so, our goal was to ensure that at maximum volatility, the market could



Our CTO Tom San Pietro and his team have put in a great deal of work migrating the entire Service to a new Ultra Low Latency Network (ULL)



What clients now connecting to FSS can expect is a network built for high volumes, with extremely low latency that is highly competitive from a performance standpoint.

rely on the Service to perform at a high level, regardless.

What clients now connecting to FSS can expect is a network built for high volumes, with extremely low latency that is highly competitive from a performance standpoint. Our volumes and client base are a testament to the level of satisfaction our end users experience on the Service.

I believe complacency is something that has no place in the FX market. While 2024 was extremely exciting from a number's perspective, we realize that people are starting to take note of FSS and we must continue to do a great job every day.

We cannot afford to stand still and admire our hard work, because someone will overtake us. Towards the end of 2024, we began work to

identify products and client segments in which we felt we could grow, and the additions from a product standpoint that we would need to make to increase our appeal to them.

**Can you share your findings?**

In terms of client types, the Systematic Hedge Funds have really proven to be a sweet spot for FSS in recent



Our volumes and client base are a testament to the level of satisfaction our end users experience on the Service

FXSpotStream: Still hungry to succeed and deliver the highest level of service



We have seen 4 new LPs go live and continue to have conversations with new ones

years. Our offering can be rolled out company wide, while individual managers can customize their own liquidity pool with ease. New pods can go live with very little work to be done, and the testing process remains consistent.

Given our strong presence in the Systematic Hedge Fund world, we have decided to work with our technology partner to provide a new GUI offering, available and tailored to Macro Hedge Funds trading needs.



Our API offering allows clients to connect and receive pricing from multiple banks

The new GUI will leverage many of the recurring needs we heard expressed by those members of the Macro HF community with which we spoke, with the unique scalability of the FXSpotStream model. While we feel there will be additions to be made down the line, we are confident that we are coming to market on day one with an established and extremely competitive product and a compelling pitch.

For those not familiar, what is the FXSpotStream model?

FXSpotStream was originally founded to alleviate growing costs associated with the electronification of the FX market. As a result, our model has always aimed to be cost effective for both the buy side and sell side alike. For our Liquidity Providers, we offer a flat fee model which means that regardless of their monthly volumes, they know the bottom line and in effect, the more business they put through FSS, the lower their effective commission rate would be.

In 2023 we introduced a number of new plans which were a mixture of the subscription fee model and a commission-based pricing model, to allow for new LPs to join the Service and increase their volumes over time. Since implementing these, we have seen 4 new LPs go live – ANZ, Deutsche Bank, Natwest and Wells Fargo – and continue to have conversations with new LPs.

We feel that rate cards that suit our LPs will ultimately be reflected in better pricing for our clients as the LPs will want to do that business over FSS rather than a channel where they are being charged a higher per million fee.

From a client perspective, we have normalized the offerings of all 18 of our liquidity providers and made



We feel that there is a growing opportunity for a alternative in FX Swaps and that our unique offering makes us a strong candidate to fill this need



Clients pay nothing to access pricing from as many of the LPs as they have a relationship with and FSS supports pricing in Spot, Swaps, Forwards, NDF, NDS and Precious Metals

AT FXSPOTSTREAM  
WE HAVE A TEAM  
THAT ARE HUNGRY  
TO SUCCEED AND  
PROVIDE THE  
HIGHEST LEVEL OF  
SERVICE POSSIBLE



In terms of client types, the Systematic Hedge Funds have really proven to be a sweet spot for FSS in recent years. Our offering can be rolled out company wide, while individual managers can customize their own liquidity pool with ease

them available via a single API or GUI. Clients pay nothing to access pricing from as many of the LPs as they have a relationship with, and FSS supports pricing in Spot, Swaps, Forwards, NDF, NDS and Precious Metals out of co-location sites in New York, London and Tokyo.

In addition, we have undergone the same process with the algos of the participating liquidity providers and clients can access these in the same way, with no charge from FXSpotStream.

Furthermore, FXSpotStream is vendor agnostic, meaning that if you use a technology provider for any of your connectivity, network or trading needs, FSS can often do the work to integrate with them,

minimizing the disruption to your operations.

#### Are there any other advances in the pipeline?

After recent announcements in the FX industry, we feel that there is a growing opportunity for a alternative in FX Swaps and that our unique offering makes us a strong candidate to fill this need. As mentioned, we are looking at Macro Hedge Funds to grow FX Swaps activity on the service. Given Hedge Funds large market interest and sophisticated needs in the FX Swaps market, we are also targeting the end of Q2 as a go live date for supporting Streaming FX Swaps.

This is an area that we have paid close attention to and been

monitoring interest from the market for a while now. Working closely with early adopter LPs to introduce this to our offering before opening this up more broadly.

#### It certainly seems like there is a lot more to come for FXSpotStream.

Absolutely. We are always looking for ways to improve the Service, but what has to remain consistent is the level of pride and attention to detail that the staff show daily.

At FXSpotStream we have a team that are hungry to succeed and provide the highest level of service possible. It is about getting the most out of these relationships for both our clients and LPs and we are extremely motivated to do just that.



# Integrating Transaction Cost Analysis into FX trading workflows

Paul Golden outlines why market participants need to consider various factors specific to FX if they are to maximise the benefits of TCA while addressing the operational and strategic challenges of integrating it into their trading activities.



TCA in FX requires highly granular, high frequency data, including tick-by-tick quotes and trades from diverse liquidity sources such as ECNs and bank/non-bank streams. Platforms providing comprehensive, microsecond-level timestamps are essential to measure accurately against dynamic benchmarks like risk transfer price or arrival price.

The decentralised FX market complicates benchmarking due to fragmented liquidity and the absence

of a unified pricing reference. Comprehensive data aggregation and normalisation from multiple liquidity sources are essential to create accurate benchmarks reflective of true market conditions. "The ability to seamlessly integrate proprietary logic via tools such as AlgoBox further enhances the depth and precision of analytics throughout the trading lifecycle, from pre-trade to post-trade, supporting ultra-low latency execution," observes John Stead, director of sales enablement

and marketing at smartTrade Technologies.

Sophisticated TCA frameworks rely on high frequency, time-stamped data that captures critical microstructural details. But none of this matters unless those metrics are benchmarked against accurate data according to Paul Lambert, CEO New Change FX. "By aggregating price feeds from across the FX ecosystem and constructing a real-time mid-rate derived from the best bid and offer

**"If you are a high frequency trader, execution cost represents a large chunk of your P&L so you have to be hyper-vigilant, whereas a buy-side person doing one trade a day has different priorities."**



John Crouch

available, our data enables clients to perform meaningful, apples-to-apples performance analysis," he says. "We have also developed granular, independent forward and swap benchmarks, which are dynamically adjusted for basis shifts and interest rate differentials."

#### SERVICE HAS EVOLVED SIGNIFICANTLY

Meanwhile John Crouch, CEO Ideal, observes that TCA has evolved from a simple, 'check the box' to a service that improves understanding of technical and operational risk.

"Market participants approach TCA in a different way depending on the extent to which execution costs dominate their P&L," he says. "If you are a high frequency trader, execution cost represents a large chunk of your P&L so you have to be hyper vigilant, whereas a buy-side person doing one trade a day has different priorities." BestX cleans market data and then adjusts it to the type of transaction. It also has a proprietary expected cost model that takes into account the size of the transaction and the liquidity and volatility at that point in time, enabling clients to not only evaluate their trade performance against market data but also the expected cost at the point of execution.

"Specific timestamps around when the trade was sent to the trader, when they began the order and when it was completed give clients a better understanding of their transaction costs," explains Yusuf Nurbhai, head of BestX.

He observes that there isn't a single benchmark to evaluate their

transaction costs against, which is where technology has evolved to allow clients to define the asset class-specific benchmarks that are most relevant. "They can achieve a standardised view around execution quality from a cost perspective, but they will have different ways of evaluating trading costs," adds Nurbhai. "Some may want to evaluate their costs against the WM/Refinitiv 4pm fixing plus or minus a spread because that is what is written into their investment mandates."

In this scenario, TCA helps identify when and why a trade didn't meet that criteria.

#### ANALYSIS CONTRIBUTES TO STRATEGY

TCA has evolved significantly from post-trade reviews to becoming an integral part of pre-trade and real-time analytics, empowering traders with proactive execution optimisation strategies explains Stead.

"Predictive analytics enable traders to forecast transaction costs and choose optimal execution methods before trading, while real-time TCA alerts allow immediate strategic adjustments to changing market conditions," he says.

"By integrating execution logic directly within analytics, our platform enhances traders' ability to respond dynamically during trades, substantially improving outcomes such as reduced slippage and market impact."

While early TCA efforts were often regulatory box-ticking exercises, today's advanced frameworks feed directly into pre-trade decision making. But this evolution comes with a caveat: accuracy is now non-negotiable. "Furthermore, pre-trade tools only add value if they understand the



TCA has evolved to become an integral part of pre-trade and real-time analytics

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**"Regulators will want proof that execution policies are not only documented but demonstrated, which means showing how TCA results feed back into execution decisions and counterparty reviews."**



Paul Lambert

get the cleanest and most sanitised dataset, spending the majority of its time working with platforms, order management systems, custodians and banks to ensure data consistency.

"If a client trades on Bloomberg, for example, we will get their files directly and because it's all cloud-based and the install is just a Chrome-based browser, they are ready to go," says Nurbhai. "The training is more around how to utilise the tool to get the most out of it."

#### WELL WORTH THE COST

As for how to measure the cost effectiveness of TCA, he says he has spoken to firms who say they have made savings that outweigh the cost of a licence by being able to identify trades that were erroneously booked.

"They are also able to evaluate their counterparties in an empirical, quantitative manner," adds Nurbhai.

underlying volatility in the market at the time," says Lambert. "We have developed an expected spread model that calculates the volatility in the market over the preceding five minutes and adjusts the spreads accordingly. This is useful in the post-trade TCA process as well, as it helps clients understand when costs have risen due to market volatility."

In terms of implementation, BestX has focused on the areas where it can

"As these counterparties are trying to improve their performance to gain a greater share of trading activity, this also leads to cost savings. Outlier detection drives value by improving counterparty competitiveness."

Effective TCA implementation requires meticulous data management, justified benchmark selection, comprehensive documentation and independent verification to meet stringent regulatory requirements such as MiFID II and FX Global Code adherence. Leveraging platforms with robust governance, audit and reporting functionalities is critical.

"Trading firms can evaluate TCA cost-effectiveness by establishing clear execution cost baselines, accurately measuring investments in TCA technology and consistently tracking improvements post-implementation," says Stead. "Translating reduced slippage and lower market impact into monetary terms relative to trading volume demonstrates tangible benefits."

Scalability and adaptability in TCA require adopting flexible, modular infrastructures capable of handling increased data volumes and market evolution.

"Leveraging AI-driven analytics enhances dynamic responsiveness to changing market conditions," observes Stead. "Integrating these systems seamlessly requires careful planning, including phased rollouts and interoperable design using standard protocols."

Effective integration depends on flexibility and interoperability. TCA systems must be able to plug into existing trade management systems, OMS platforms and data lakes without disruption.



Buy-side firms under pressure to accomplish more with fewer resources have limited bandwidth for trying new trading tools

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**"TCA can also be used to show the best performing algos historically based on fill speed and spread, helping clients decide whether to trade RFQ or algo,"**



Yusuf Nurbhai

swaps," says Lambert. "They will want proof that execution policies are not only documented but also demonstrated, which means showing how TCA results feed back into execution decisions and counterparty reviews."

Legacy TCA systems were often built for static, low frequency analysis and don't scale well. New Change FX rebuilt its TCA platform from the ground up using a cloud-native architecture, which allows the system to scale horizontally and vertically without compromising performance or user experience.

"The platform automatically consumes client execution data, matches it against high frequency benchmark data and delivers both post- and pre-trade insights via API or dashboard," explains Lambert. "This scalability makes the system future-proof, capable of adapting to the evolving dynamics of global FX markets."

"Many desks focus on spot FX but regulators expect the same best execution standards for forwards and

Crouch explains that when it comes to achieving seamless integration

with existing systems, Ideal utilises proprietary, automated tools to minimise client effort, making the integration process as effortless as possible. "Our tools normalise the data from internal systems and vendors - we typically get clients live in days or weeks," he says.

Buy-side firms under pressure to accomplish more with fewer resources have limited bandwidth for trying new trading tools. When they start doing TCA in-house, they often need to source new data, requiring technical work and budget.

"If we look at where best execution started, the only way you can show you are doing a good job is by getting data from loads of counterparties - and sourcing that data is a complicated process," says Crouch. "Contractually, some of these providers don't want to give data to other firms. In this scenario, a third party can play a valuable role by showing firms where they sit in the broader market ecosystem without disclosing sensitive information."

#### THE POWER OF DATA

The impartiality of the data used to produce TCA reports has been a contentious topic in the FX market for some time. However, Crouch says reporting has become much more transparent over the last decade.

"At this point, showing inaccurate analysis would require malicious intent and I just don't think any platform would do that," he says. "That said, the benefits of full independence are focus and flexibility. Independence allows us to utilise data from many sources to produce a more complete assessment."

Crouch also emphasises the importance of data privacy. "We keep our data fully segregated, whereas

other firms co-mingle data for peer analysis," he adds. "The extent to which an analytics firm is keeping a user's data completely private drives many client decisions. Firms seek Ideal solely because we safeguard their privacy."

Lambert suggests the most important question in TCA is deceptively simple (what are your trades being measured against?) and adds that venue-provided TCA reports often benchmark execution against the provider's own prices, offering only a narrow view of performance.

"As an independent provider, we benchmark trades against a market-wide, regulated data set. This objectivity provides a clear, unbiased view of execution quality across the full FX landscape, meaning firms can be confident they are performing well relative to the best available market conditions."

Venue-provided TCA reports often carry inherent conflicts of interest, risking biased benchmarks and selective data representation, says Stead. Independent TCA providers counteract these issues by delivering impartial, comprehensive data analyses using standardised methodologies.

smartTrade complements independent analysis by offering transparent, impartial benchmarking tools, supported by its flat-fee model, ensuring that data used for TCA remains clean and unbiased.

As clients increasingly trade across multiple venues, aggregating TCA reports across venues to get a holistic view of trading performance becomes very difficult - and if they are only evaluating performance based on the available market data of an individual venue, they may be missing

**"People in the Middle East are becoming more aware of FX trading, and they now have access to easy-to-use apps, AI-powered tools, and social trading platforms."**



John Stead

opportunities to perform better by trading on other venues.

"The buy-side can also opt to have their data aggregated, anonymised and put into a community data pool to allow them to evaluate their trading performance against their peers," says Nurbhai. "So you can see the value of data based on verified trades rather than trades that have been handpicked by a venue or a liquidity provider."

#### INTEGRATION THE WAY FORWARD

The future of FX TCA points towards greater integration with predictive analytics and AI, providing real-time insights and hyper-personalised execution strategies across asset classes. Future-oriented TCA systems will dynamically adapt trading strategies mid-execution and provide deeper analytical insights into liquidity provider behaviours and algorithm performance.

"We are leading this evolution by integrating advanced AI tools such as Copilot into trading workflows, leveraging modular microservices and customisable APIs to ensure continuous adaptation to market trends, ultimately delivering enhanced execution intelligence and superior operational effectiveness," adds Stead. According to Nurbhai, the 'sand in the gears' of TCA is when a busy buy-side trader has to log into multiple systems to get trading information before going back into their OMS or EMS, which is why his firm created a tool that will interrogate its database to provide a ranking of counterparties.

"TCA can also be used to show the best performing algos historically

based on fill speed and spread, helping clients decide whether to trade RFQ or algo," he says.

Crouch emphasises the importance of being able to assist firms as they trade a wider range of asset classes, utilising asset agnostic analysis and addressing nuances of each asset class.

"Ideal focuses on automation, enabling users to understand the variables that drive profitability and risk - that simplified process saves time across management, risk, sales, and trading teams," he says.

Lambert reckons the future is live TCA with immediate feedback loops, informing pre-trade analytics such as the cheapest date to roll a swap to, because the future of trading is already here with machines trading with machines.

"The future will be about real-time, machine-readable live TCA, not reports at T+1," he says. "We are talking live analytics that plug directly into automated execution engines, enabling adaptive behaviour on the fly."

#### THE FUTURE OF FX TCA POINTS TOWARDS GREATER INTEGRATION WITH PREDICTIVE ANALYTICS AND AI



# How LSEG helped a multinational corporation automate its treasury workflows to optimise risk management and FX trading

By collaborating with LSEG FX, Mondelez International has been able to simplify workflows, access more FX liquidity and improve the efficiency of its treasury function

Mondelez International Inc. is an American multinational confectionery, food, holding, beverage and snack company headquartered in Chicago. One of the largest companies of its kind in the world, Mondelez had annual net revenues in 2024 of approximately \$36 billion. Mondelez has operations in around 80 countries.

Mondelez's treasury has become a leader in FX workflow automation, maximising efficiency while enabling the team to change focus from simply managing transactions to optimising risk management. Mondelez initially built a complete risk management framework, which was designed to respond quickly to market conditions. FXall plays a key role in this integrated framework.

## BUSINESS CHALLENGE

Companies looking to thrive in competitive markets are continually challenged by factors such as market volatility, economic and geopolitical uncertainty and the cost of hedging and trading. A lack of pricing transparency in certain currency regions, along with high hedging costs for longer maturities, can put multinational businesses at a disadvantage.

As a growing company operating in multiple markets, Mondelez needed an efficient, reliable, comprehensive and scalable treasury function, where high levels of automation accelerate and simplify end-to-end workflows, improve performance and cut costs.

Workflow automation is an important

way for the company to become more efficient, while accurate and reliable data is vital for forecasting and effective risk management strategies, which include the utilisation of FX options.

Lyubomir Apostolov, Regional Head of FX at LSEG in Zurich, said, "In the last few years, we observe an increasing reliance on FX option strategies amongst corporations as this client segment seeks greater flexibility in risk management and a more cost-efficient hedging alternative to traditional instruments like FX Forwards."

## SOLUTION

LSEG's FXall was chosen so that Mondelez could:

- Access a wide range of liquidity providers, including specialist emerging market FX options providers, across the large number of G20 and emerging market currencies they trade, to meet their liquidity needs
- Ensure seamless integration with the company's existing Treasury Management System, improving price transparency, increasing efficiency in the team and achieving cost savings
- Implement an effective FX options hedging programme at scale while enabling the treasury team to efficiently manage its FX options portfolio on a daily basis

## WHY LSEG FX?

LSEG FX offered Mondelez a genuine collaboration, maintaining an open dialogue on the development of an advanced trading workflow suitable for Mondelez and other large corporations.

## ACCESS TO LIQUIDITY

The depth of liquidity, range of supported currencies, and the variety of liquidity providers were amongst the key reasons why Mondelez International chose to collaborate with FXall.

Access to emerging market FX options liquidity was also an essential factor. This reflects the global footprint of Mondelez, with currency exposure in most of the 80 markets in which it operates.

## EASE OF INTEGRATION AND AN END-TO-END WORKFLOW

Mondelez and FXall established a robust, scalable and flexible interface allowing seamless order upload from Mondelez' Treasury Management System (TMS) into FXall for execution. An end-to-end workflow implementation ensures not only a direct trade download back into the TMS, but also an automatic trade confirmation with Mondelez' relationship banks through FXall's Settlement Center. It was critical that all systems aligned so that all transactions go through Mondelez' TMS to ensure maximum efficiency and visibility.

## FX OPTIONS

With FX options recognised as offering greater flexibility in terms of risk management, Mondelez took the strategic decision to implement a comprehensive FX options programme involving daily executions through FXall.

The options pricing and trading tool was one of the key reasons why FXall was selected. Options Pricer is an

"In the last few years, we observe an increasing reliance on FX option strategies amongst corporations as this client segment seeks greater flexibility in risk management and a more cost-efficient hedging alternative.."

integrated tool which allows netting, defining target premium or solving for strike and trading FX options strategies with or without delta hedge.

This tool has allowed Mondelez to automate its FX options execution, giving the global treasury team an innovative capability to manage a large and complex FX options portfolio daily. LSEG continues to work in close co-operation with the team to provide additional enhancements and ensure that the FX options pricing and trading functions meet customer needs.

Adam Jarawka, Director Treasury Operations at Mondelez International in Zurich, said, "Our risk management framework and high levels of workflow automation have allowed us to increase the volume of FX options tenfold. This would not be possible if trading was still manual."

## THE BENEFITS

The high level of automation which FXall has brought to the Mondelez treasury operation has largely



eliminated the use of spreadsheets and time-consuming manual processes, freeing the treasury team to concentrate on other, higher value tasks. Without automation, it would be impossible for the relatively small team to execute the desired volume of trades.

By implementing FXall, Mondelez has seen better and more consistent pricing as well as a wider range of liquidity providers to choose from, which is particularly important in emerging market currencies.



Companies looking to thrive in competitive markets are continually challenged by factors such as market volatility, economic and geopolitical uncertainty and the cost of hedging and trading



Mondelez's treasury has become a leader in FX workflow automation, maximising efficiency while enabling the team to change focus from simply managing transactions to optimising risk management

“Our risk management framework and high levels of workflow automation have allowed us to increase the volume of FX options tenfold. This would not be possible if trading was still manual.”



Adam Jarawka

to refine its ‘best practice’ risk management framework. In parallel the company works together with LSEG to benefit from increased visibility across all assets, e.g. in the area of commodities, and it is exploring possibilities of adding AI components to the framework in order to identify trends more efficiently and further automate the processes.

The most recent milestone of the collaboration between Mondelez and LSEG has been the successful implementation of FXall’s Settlement Center, which enables FX options trade confirmation via SWIFT Network, premium netting and intelligent matching criteria, recognising the economics of different FX options.

The company’s ultimate goal is the implementation of a single LSEG platform which will link with Mondelez’ TMS and include LSEG Workspace, risk valuations, options calculator, trade monitoring, execution and pre- and post-trade TCA.

Automation of processes brings time-saving benefits and reductions in the likelihood of human error. Where errors do occur, the team has the time and ability to identify any manual trades and evaluate the cause of the error and the solution going forward.

Increased transparency along with more frequent and accurate valuations are additional benefits. Mondelez confirms that risk reporting and analytics have improved significantly, with automated statistics allowing the treasury team to measure their performance and more easily revise plans.

The increased market transparency offered by FXall allows Mondelez to focus on managing overall risk rather than simply managing transactions, increasing efficiency and benefiting the company as a whole.

LOOKING FORWARD

LSEG and Mondelez International are working together to create an industry-leading automated FX trading service for corporate treasuries.

With a goal of 95% FX transaction automation, Mondelez is continuing

ABOUT LSEG FXALL

FXall is a completely flexible trading platform that gives you seamless access to rich data and smart tools.

With liquidity access, to straight-through-processing, FXall provides the choice, agility, efficiency and confidence you want. Trading spot, forwards, swaps, NDFs and options is only a click away.

Seamlessly execute your trading strategies by leveraging fixing orders, algorithmic and resting orders, order splitting and utilising send details to book off-platform trades and receive full STP.

Multiple regulated venues in one platform enable traders to confidently comply with Dodd-Frank, MiFID and other global and local regulations.

ABOUT MONDELEZ INTERNATIONAL

Mondelez International empowers people to snack right in over 150 countries around the world. It operates with iconic global and local brands such as Oreo, Ritz, LU, Clif Bar and Tate’s Bake Shop biscuits and baked snacks, as well as Cadbury Dairy Milk, Milka and Toblerone chocolate.

It is one of the largest snack companies in the world with global net revenues of approximately \$36 billion in 2024. It holds the

#1 global position in biscuits (cookies and crackers) and #2 in chocolate, while it’s growing rapidly in baked snacks. It also makes and sells gum & candy as well as various cheese & grocery and powdered beverage products in certain markets.

It has operations in more than 80 countries and employs approximately 91,000 diverse and talented employees in its factories, offices, research & development facilities and distribution activities around the world.



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# Build versus Buy:

Key considerations for financial institutions looking to capture the benefits of further e-FX and digital transformation

Olli Lämsä, Head of FX Product Development/Product Manager at TreasurUp discusses some of the operational, strategic, regulatory and technical issues that banks and financial institutions should consider before deciding whether to build or outsource their e-FX and fintech requirements.



Olli Lämsä

**What are some of the main cost considerations facing financial institutions when looking into the relative merits of whether to build or buy financial technology?**

Building in-house solutions requires substantial investment in development resources, specialized talent, and infrastructure. Beyond initial costs, banks face ongoing maintenance expenses, security updates, and continuous feature evolution. These often make the total cost of ownership significantly higher than projected. A specialized fintech partner like TreasurUp distributes development costs across multiple clients, allowing for continuous improvement while keeping costs predictable. This enables banks to access enterprise-grade technology that would be prohibitively expensive to develop individually.

**In what ways can the speed of market entry differ between building and buying financial technology?**

Developing a client-facing FX hedging solution in-house typically requires 12 to 24 months, from initial concept to full deployment. This period includes solution architecture, software development, integration with internal pricing and trading engines, comprehensive security testing, and regulatory compliance. It also demands a dedicated, cross-functional development team to handle the technical complexity and operational requirements of the project.

In contrast, TreasurUp can deliver a fully white-labeled FX solution within just 3 months. This significant reduction in time-to-market provides banks with a competitive advantage, enabling them to respond rapidly to client demand and market opportunities. With minimal integration required into existing systems, the platform allows banks to begin capturing market share while competitors may still be in early development stages.

**Meeting regulatory requirements is critical for financial institutions. How might this impact the decision to outsource fintech functions and does it necessarily present any hurdles?**

Regulation is constantly evolving, particularly around data protection

and transaction reporting. While this raises legitimate outsourcing concerns, mature fintech solutions are built with compliance at their core.

TreasurUp's platform addresses key regulatory areas including data security, audit trails, and regional requirements like MiFID II. Specialized providers can adapt more quickly to regulatory changes by leveraging experience across multiple implementations.

**What sort of risk management procedures and processes, for example robust business continuity and disaster recovery plans, should financial institutions expect from their fintech partners to ensure the operational resilience and performance of outsourced services?**

Banks should expect fintech providers to meet or exceed their own resilience standards. This includes high uptime SLAs, comprehensive disaster recovery protocols and 24/7 monitoring. Recovery time and point objectives should be clearly defined and regularly tested.

Certifications like ISO 27001 demonstrate structured information security management with documented incident response procedures. Regular reporting allows banks to maintain appropriate oversight while delegating the technical execution of resilience measures.

**How do vendor fintech solutions compare to internally developed systems in terms of scalability?**

Vendor solutions should be architected for scalability from the ground up. A modern cloud-based platform like TreasurUp's is designed to scale across diverse client segments, geographic locations, and legal entities. It can efficiently handle a high number of trades during periods of market volatility and supports the seamless integration of new features without requiring major system overhauls.

In-house systems, especially those hosted on-premise, often face infrastructure limitations requiring costly upgrades to scale. Cloud-based setups offer elasticity to handle peak loads efficiently, delivering consistent performance regardless of market conditions—a critical advantage in volatile FX markets.

**Some banks and financial institutions remain concerned about the data security and integration issues associated with outsourcing fintech. Should they be?**

Yes, these concerns deserve serious consideration. Fintech providers must demonstrate robust safeguards for sensitive data throughout its lifecycle, including encryption, access controls, client data segregation, and incident response capabilities. Independent certifications provide third-party validation of security measures.

Beyond security, TreasurUp has established connectivity with major bank systems and FX pricing engines, ensuring secure data flow. The right provider offers both technical security and operational transparency, allowing banks to maintain oversight while gaining specialized expertise.

**How flexible can outsourced fintech services be for those institutions looking for solutions that can align more perfectly with their strategic business objectives and unique needs?**

Flexibility varies significantly between providers. Some offer standardized solutions, while others build adaptability into their core offering. Banks should seek partners willing to tailor user experiences, branding, workflows, and product roadmaps to align with strategic objectives.

TreasurUp's approach focuses on configurability allowing banks to maintain unique market positioning while leveraging proven technology.

**For financial institutions that decide to go down the outsourcing route what levels of customer service should they expect from their fintech providers?**

Banks should expect comprehensive service beyond basic support. This includes defined SLAs with guaranteed response times, dedicated success managers who understand both the technology and business objectives, and structured onboarding with appropriate training.

The relationship should evolve through regular strategic reviews where both sides collaborate on enhancements aligned with the bank's goals. TreasurUp's model includes proactive monitoring to identify potential issues before they impact service, ensuring the platform continues to deliver measurable value.

**In what ways can outsourced e-FX and white labelled fintech solutions help banks and financial institutions to more quickly capture new business opportunities?**

Outsourced solutions enable banks to rapidly deploy market-tested features without the development cycle. These capabilities often emerge from cross-client insights, allowing banks to benefit from collective learning.

TreasurUp regularly introduces innovations like advanced risk analytics or automated hedging strategies that banks can quickly offer to clients. We also explore emerging technologies like stablecoins and AI-based behaviour analysis, inviting bank partners to test early versions with selected clients. This approach allows evaluation of new opportunities with minimal investment, accelerating response to evolving client needs.

**What factors and technical considerations are important for financial institutions in the choice of suitable fintech provider for them to partner with?**

When selecting a fintech partner, banks should prioritize:

- Proven track record with similar institutions
- Seamless integration with existing FX infrastructure
- Recognized security certifications (ISO 27001)
- Regular platform updates and clear technology roadmap
- Co-development aligned with bank strategy
- Customization options preserving brand identity
- Scalability for growth and new features

TreasurUp meets these criteria through our purpose-built FX platform serving nine banks and thousands of corporate users. Our collaborative approach helps banks compete effectively while maintaining control of client relationships.

# How Electronic Money Institutions are promoting financial inclusion

By Lissele Pratt, founder of Capitalixe



LISSELE PRATT

Imagine living without a bank account. No safe way to save money. No simple way to receive a payment. No access to credit or a loan when you need it.

That's daily life for over 1.4 billion people around the world. They work, they earn, they spend, but they're left out of the financial systems that many of us rely on every day. The traditional banking model hasn't been able to reach them. So, they're excluded.

But over the last few years, something has started to shift. A new wave of digital-first financial institutions is opening doors that were once closed. They're called Electronic Money Institutions - or EMIs.

EMIs aren't trying to fix the old system. They're building something different. Faster. Simpler. More accessible. In

this article, we'll explore what EMIs are, how they work, and how they're helping people take their first real step into the financial system.

## WHAT ARE EMIS?

An EMI is a licensed institution that issues electronic money, a digital form of currency that acts as an alternative to cash. When you make a payment through a mobile wallet or load funds onto a prepaid card, you're using electronic money. It's not cryptocurrency. It's real money, held in digital form. When you top up an e-wallet or use a prepaid card, that's electronic money in action.

## HOW DO THEY WORK?

The process is really straightforward. An EMI takes money from a customer and stores it electronically, letting that money be used for payments, transfers, and transactions, often in real-time, and typically at a lower cost than traditional banks.

EMIs don't offer loans or hold your savings like a bank. Instead, they focus on helping people and businesses move money quickly, safely, and with fewer barriers. Think online payments, mobile wallets, cross-border transfers, and financial tools for freelancers or small businesses. That's their world.

Because EMIs are built on modern technology, they're often faster, more flexible, and cheaper to run than traditional banks. And that makes them especially powerful in places or

communities where banking access has always been limited.

## HOW ARE EMIS USING TECHNOLOGY TO DRIVE CHANGE?

When we talk about EMIs, we're not just talking about digital wallets or mobile apps. We're talking about how they're using cutting-edge technology to completely reshape the way we handle money:

### Real-time transactions:

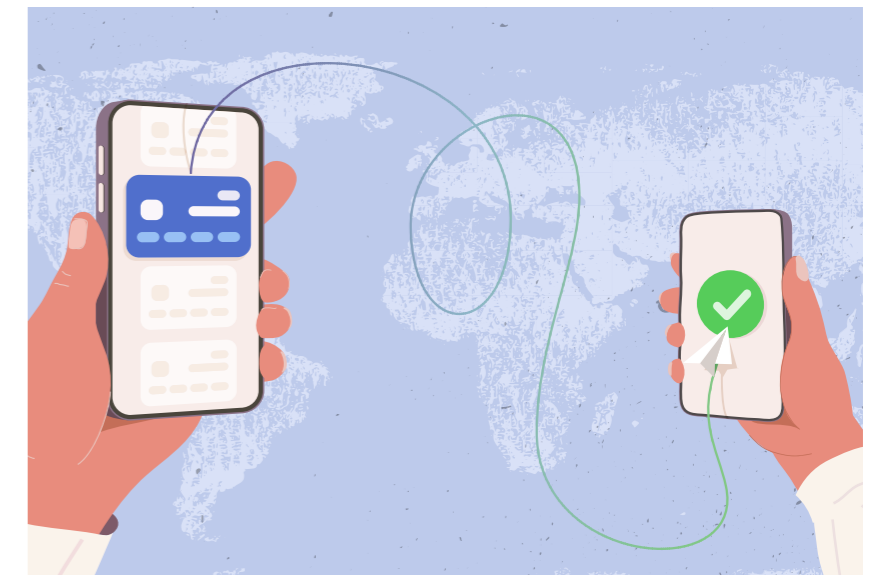
We live in a world of instant messaging, instant streaming, instant everything. So why are some banks still making us wait between 1-5 days to move money?

EMIs said: "That's not good enough." Those same transactions don't take days with these institutions, but seconds. They've designed systems that make instant payments possible, even if you're sending to a completely different country or continent.

They're now also embedding instant payment infrastructure to meet bold regulatory mandates, like the EU's requirement that all banks offer SEPA Instant transfers. That means moving up to €100,000, across borders, in seconds, not hours, not days.

### Open banking:

But speed alone isn't the revolution. Open Banking is. Instead of locking your financial data behind walls, Open



EMIs focus on helping people and businesses move money quickly, safely, and with fewer barriers

Banking gives you control. Want to use your banking data to get a better mortgage deal? Done. Want to track your spending across multiple apps? Easy.

With Open Banking, EMIs are tearing down the walls that traditional banks spent decades building. Like Tim Berners-Lee said, "Data is a precious thing and will last longer than the systems themselves." Open Banking gives that power back to the people. Back to you.

### API integration:

How do EMIs make it all work together? Think of APIs as translators. They let apps and systems talk to each other.

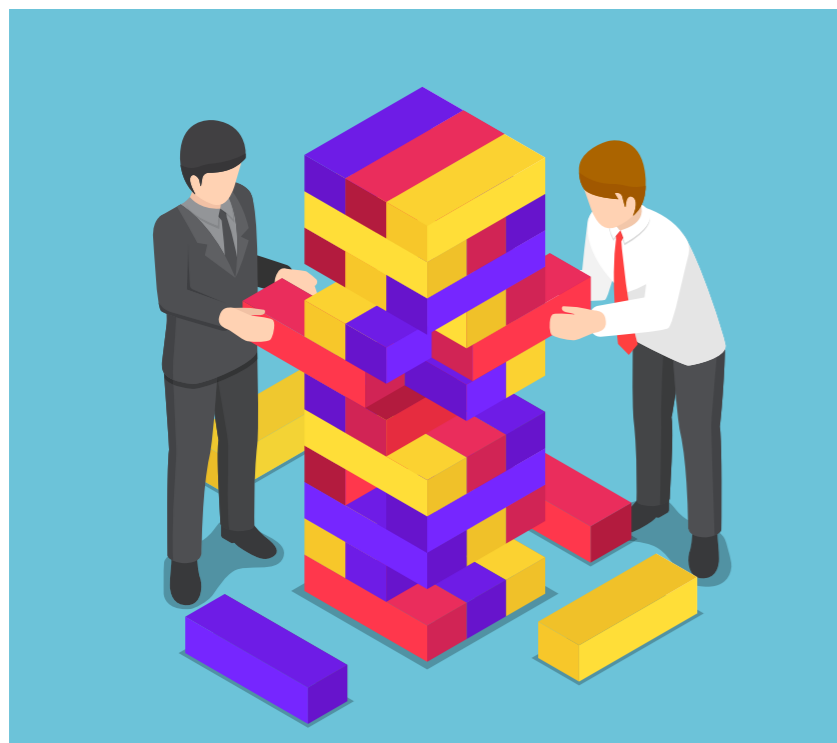
If you want your budgeting app, your EMI, your crypto wallet, and your

phone to speak the same language and connect seamlessly with each other, APIs make that happen. This means faster innovation. Better features. And systems that work together, not against each other. Think Lego blocks. You can build anything when they fit together.

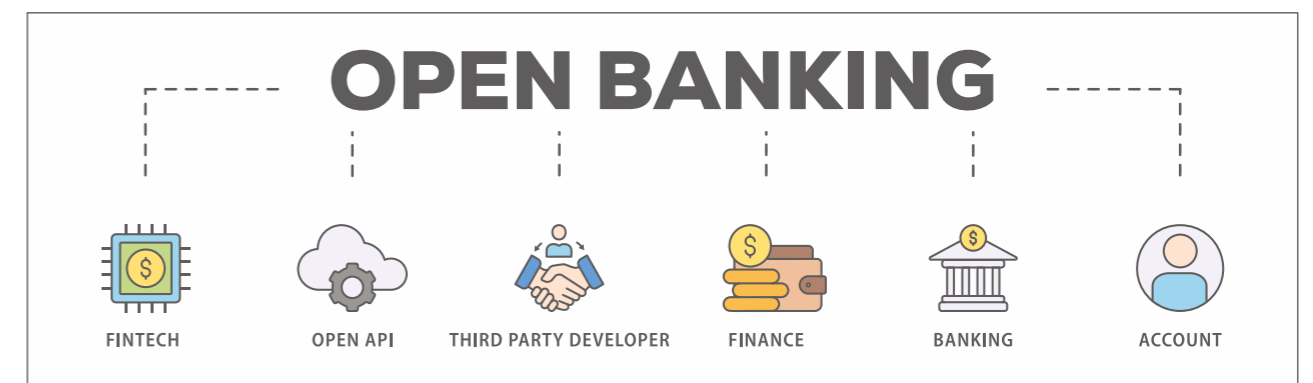
### Biometrics and enhanced security:

Speed means nothing without security. And that's where EMIs shine. They're using biometric authentication (things like fingerprints, face scans, even voice recognition) as digital shields.

Passwords can be guessed. Biometrics, they're you. And no one can copy that. Some EMIs even use behavioural biometrics - like how you type, or how you hold your phone - to detect fraud. Add in advanced encryption, multi-factor authentication, and real-time



EMIs aren't trying to fix the old system. They're building something different



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EMIs use biometric authentication as digital shields

fraud detection, and what you get is trust, built into the system.

Safety doesn't stop at technology either. EMIs operate under some of the toughest regulatory frameworks out there. They follow strict Anti-Money Laundering (AML) laws. They meet Know Your Customer (KYC) standards, not just once, but continuously. They use digital onboarding, AI-powered

identity verification, and continuous monitoring tools to stay compliant, secure, and efficient. It's the kind of compliance that speeds trust up.

#### HOW ARE EMIS PROMOTING FINANCIAL INCLUSION?

Let's be honest. Traditional banking left too many people behind. If you didn't have a credit history, a stable income, a permanent address, or if



EMIs operate under some of the toughest regulatory frameworks out there

you simply lived in the wrong place, you were excluded. Financial services became a privilege. Not a right. EMIs are innovating and including. Here's how:

#### Mobile-first approach – reaching the unreachable:

The average smartphone today has more computing power than the machines that sent us to the moon. But what's even more powerful is what EMIs are doing with that power.

They're turning smartphones into bank branches. You don't need to walk into a building.

You don't need paystips, paperwork, or proof of address. You just need a phone, and a connection. And that simple shift is transforming lives.

For instance, in Africa digital wallets powered by EMIs have given millions access to send, save, and receive money, sometimes for the first time ever. Take OPay in Nigeria, for instance. With 35 million registered users, it supports SMS-based and app-based payments, even on basic phones. That's critical in a country where 26% of adults remain unbanked.

Another example is M-Pesa which is the dominant mobile money service in Kenya and a global benchmark for mobile-first financial inclusion. It allows users to deposit, withdraw, transfer money, pay bills, and access microloans, all via mobile phones-even basic ones. M-Pesa's reach extends to neighboring countries, with over 50 million users and a significant share of Kenya's GDP flowing through its platform.

#### Onboarding the underserved with frictionless KYC:

Traditional banks often turn away people who can't tick every box - utility bills, photo ID, proof of address. EMIs are flipping that model.



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## How Electronic Money Institutions are promoting financial inclusion

Source: Vodafone

### 4 reasons why M-Pesa is key to unlocking Africa



M-Pesa is a global benchmark for mobile-first financial inclusion

They use digital KYC tools like identity checks through selfies, e-signatures, and document scanning powered by AI. In just minutes, a street vendor, a gig worker or a refugee can get access to a digital wallet, a virtual card, even a multi-currency IBAN, turning bureaucracy into possibility.

Some key innovations in this space include:

- **Selfie verification:** Some platforms use facial recognition to match a live selfie with an uploaded ID document. It takes seconds.
- **Document scanning:** Advanced OCR (Optical Character Recognition) extracts data from ID cards and passports in real time. AI checks for holograms, watermarks, and microtext to detect fakes, ensuring fast onboarding without compromising compliance.
- **Liveness detection:** Some tools go a step further, blocking spoof attacks and deepfakes using NIST Level 2 anti-spoofing technology. That means only a real, live human - not a photo or video - can complete registration. This is now used in digital onboarding flows across emerging markets and by global EMIs expanding into risk-sensitive sectors.

#### Cross-border finance – sending money, not losing it:

Now imagine this: You work hard

abroad. You send money back home. But fees eat into your wages. Transfers take days. EMIs saw that and realised that it could be improved.

Today, they're offering low-cost, near-instant cross-border payments. They're using SEPA instant transfers, local payment rails, and crypto-fiat bridges to make sure money arrives faster, and stays intact. Because when you're supporting family back home, every second matters. Every cent matters.

#### Financial literacy tools – not just access, but understanding:

Access without understanding is not empowerment. That's noise. That's why many EMIs go further, offering spending analytics, budgeting tips, and savings nudges built right into their apps. They're gamifying good money habits. They're nudging users to plan, not just spend.

They're teaching, without preaching. Because real inclusion means people not only have money, but know how to grow it.

#### WHAT CHALLENGES DO EMIS FACE?

EMIs are pushing boundaries, but they're not without their own:

- **Regulatory complexity:** Unlike traditional banks, EMIs must

navigate a patchwork of evolving rules across borders. From PSD2 in the EU to local licensing in emerging markets, compliance is mandatory and it's expensive.

- **Trust and reputation:** They don't hold banking licenses, and that makes consumer trust harder to win. One bad actor in the sector can damage the perception of them all. Building credibility takes relentless transparency and bulletproof security.
- **Financial sustainability:** Many EMIs operate with razor-thin margins. Balancing innovation with profitability, all while keeping services low-cost and inclusive, is one of the hardest equations to solve.

But here's the point: Challenges don't stop change. They sharpen it. If EMIs can overcome these hurdles, they won't just complement the banking system but redefine it completely.

#### WHAT'S NEXT FOR EMIS – AND WHY IT MATTERS

The story of EMIs isn't just about payments or technology. It's about possibility. Because when you give someone the tools to save, to send, to grow - what you're really giving them is power. Power to participate. Power to plan. Power to build a future on their own terms.

EMIs aren't a perfect solution. But they are a powerful one. They're proof that financial systems can be reimaged to serve not just the few, but the many.

So the question isn't if EMIs will shape the future of finance. It's how fast we can support them to make that future more inclusive, more transparent, and more just.

And maybe one day soon, we'll stop calling it financial inclusion. Because everyone will simply be included.



# Got Questions?



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