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# e-FOREX

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## THE FX SWAPS MARKET

How electrification is driving change

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What fund managers should consider

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FX adapts to new requirements

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A story of regional growth and increased trading volumes

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Key takeaways from the recent London event



COVER INTERVIEW

## VITALY KUDINOV

SVP, Sales & Business Development at Devexperts

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# FX OVERVIEW

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### November 2021

We were pleased that the recent Tradetech FX conference in London in September was well supported. For many attendees it has probably been quite some time since they were last able to go to one of these important industry events in person. As is pointed out in our Recent Event article in this month's edition, the virtual channels that market participants have been using to stay in contact during the past 18 months are very useful for maintaining relationships and keeping the wheels of business turning but they are no substitute for the physical events themselves and can never fully replicate the benefits of attending them.

The FX swaps market is becoming increasingly electronic and our Market Commentary this month explores the factors driving that. Swaps have resisted change for a long time but the status quo is different now as regulation, technology, and the need for transparency are creating new opportunities and solutions. The market has many new participants who are questioning how it operates and the COVID pandemic has also placed the voice-driven nature of the business under scrutiny. So with swaps continuing to grow as a source of global funding, there's no doubt that the need for better infrastructure and increased electrification will increase still further.

Recent surveys continue to highlight growing institutional interest and participation in the Digital Asset markets and our Digital Currencies feature in this edition takes a look at several factors that are influencing this trend. Regulation is one key one. In a boost for the crypto industry and associated institutional interest, the world's most influential regulator in the US recently stated it had no intention of banning cryptocurrencies which of course would drive technological and financial innovation out of the US and into other countries. A second important driver is the increasing threat of higher inflation and the potential role of Bitcoin as a hedge against it. Predicting what will happen to inflation over the next few years is very tricky but it will be interesting to see whether Bitcoin will increasingly be added to institutional portfolios to protect them if it gets out of control.

With this year drawing to a close we will be casting our gaze ahead in next month's December 2021 edition of the magazine and trying to predict what lies ahead for electronic FX trading in 2022.

As usual we hope you will enjoy reading this edition.

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**Design and Origination:**  
Matt Sanwell, DesignUNLTD  
www.designunltd.co.uk

Printed by Headland Printers

e-Forex (ISSN 1472-3875) is published monthly  
www.e-forex.net

**Membership enquiries**  
Access to the e-Forex website is free to all registered members. More information about how to register can be found at www.e-forex.net

To order hard copies of the publication or for more information about membership please call our subscription department.

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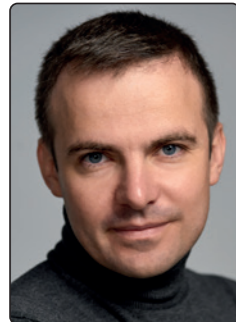
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## State Street launches GlobalLink FX

State Street Corporation has announced that its GlobalLink Division will combine its award-winning execution and post-trade platforms of FXConnect, Currenex and TradeNeXus into a single platform called GlobalLink FX. Bringing the three business together will result in significant benefits for clients including FXConnect Market Monitor, an improved price discovery tool for FXConnect buy-side clients. This



Martine Bond

enhancement will utilize Currenex streaming price feeds and market data in order to provide clients with a curated view of their liquidity providers, driving better decision making and execution outcomes.

"All three of these platforms have been core components of our broad multi-asset class solutions we offer to clients, and I am thrilled that our FX businesses will be aligning so we can further leverage the best of the platforms and deliver next-gen FX execution solutions," said Martine Bond, head of global markets EMEA at State Street. In an effort to streamline the GlobalLink FX offering, State Street also announced that the Currenex MTF platform will be closing in April 2022 in favour of operating a single GlobalLink MTF for regulated activity.



Beverley Doherty

Beverley Doherty, co-head of FX Connect, Currenex and TradeNeXus emphasizes that "GlobalLink FX will enable State Street to capitalize on the collective strengths of our award-winning platforms in order to provide the firm's clients with an integrated execution and workflow solution, catering to the evolving needs of the FX industry."

## Deutsche Bank's e-FX trading hub in Singapore goes live

Deutsche Bank has announced that it has completed its first set of live trades on its electronic foreign exchange (e-FX) hub, based in SG1. The e-FX hub, which was developed in partnership with the Monetary Authority of Singapore (MAS), enables Deutsche Bank's clients to execute FX transactions more closely aligned to geographic location, helping make trade execution times faster. Head of APAC G10 FX Lee Merchant said: "Asia Pacific is a prime example of the ongoing decentralisation that is happening in the FX marketplace globally. We've set out to create a low latency trading environment so that our clients can benefit from localized price distribution and consumption, leading to improved execution results

and performance of roughly 90 milliseconds, for clients in Singapore. The investment in our platform in Singapore significantly enhances Deutsche Bank's market-leading electronic FX offering, and nicely complements our other global FX trading hubs in New York, London, and Tokyo."

John Zeng, Head of E-Trading FIC APAC said: "We are very excited to launch an additional e-FX pricing engine in Singapore. The latest expansion of electronic pricing capacity continues to strengthen our Emerging Market currencies and NDF trading platform by offering clients enhanced execution experience both in terms of transaction latency and quality of



John Zeng

liquidity. With Singapore growing as a major liquidity hub during the Time Zone, the investment reaffirms Deutsche bank's strong commitment to the region and our endless pursuit to deliver the best-in-class solution to our clients."

 Institutional

# THE INNOVATION SAYS FINTECH, THE SECURITY SAYS SWISS BANK



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## FX broker AXI moves to KX Insights

KX has announced that Axi, a top 10 global online broker for retail and institutional customers, has signed a global enterprise deal for KX Insights, its cloud-first, real-time streaming analytics platform. KX Insights will support Axi's ambitious growth plans by enabling the capture, analysis and visualization of enormous datasets in real time including market data quotes, customer trades, and derived calculations in the cloud. The deal will strengthen Axi's trading, operations and risk management teams by enabling access to real-time business

intelligence reports and analytics in the cloud to drive decisions. It will also enhance trade execution and risk management capabilities while supporting the development of new products and services.

Andy Churchill, Senior Vice President ANZ, KX said: "KX Insights offers industry-leading performance, speed and agility for data-driven business-critical decisions in a cloud-native architecture. With a robust, innovative product road map and scalable license model, it's the ideal solution for a



company such as Axi that aims to accelerate growth by leveraging the power of real-time data analytics and visualizations for actionable insights."

## ThinkMarkets launches Liquidity.net

After celebrating a decade in the market as a retail brokerage, ThinkMarkets has now introduced Liquidity.net, a foray into multi-asset liquidity provision aimed at servicing institutional and professional clients. Liquidity.net is a registered trading name in the UK with the Financial Conduct Authority and has established offices in London and Dubai. Integrating a list of top-tier technology vendors into the offering, Liquidity.net aims to service banks, brokers, hedge funds, and asset managers by leveraging its prime broker relationships. Liquidity.

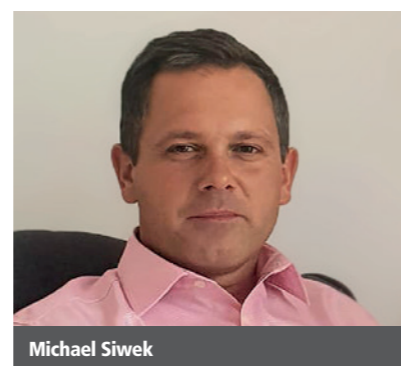
net's unique Multi-Asset Pricing engine allows for unique price formation and the addition of new liquidity into the market as well as pricing alongside Tier-1 liquidity. Aside from the traditional prime of prime partnership, Liquidity.net provides a white label offering through MetaTrader 4, MetaTrader 5, and Integral. With an impressive offering including FX, CFDs, commodities and cryptocurrencies, Liquidity.net's ability to deliver exceptional service is backed by a secure and reliable infrastructure established by ThinkMarkets over the past decade. To establish Liquidity.

net as a leading multi-asset liquidity provider, ThinkMarkets assembled a team of financial and technology experts, led by Mukram Ali, whose wealth of expertise will drive the growth effort for Liquidity.net across multiple continents. Commenting on his appointment as Managing Director for Liquidity.net, Mr. Ali said, "I'm delighted to join ThinkMarkets to head Liquidity.net. We are strongly committed to disrupt the market with reliable infrastructure, top-tier prime broking relationship, and our ability to provide access to a unique liquidity offering for our clients."

## DMALINK cooperates with the Financial Markets Association Russia

DMALINK, the EM-focused institutional FX ECN has announced it will collaborate closely with the Financial Markets Association Russia (ACI). The trading venue affirmed its commitment to the Russian market, enabling firms globally to transact Russian Ruble (RUB) efficiently using its central clearing model powered by a network of Tier 1 Prime Brokers.

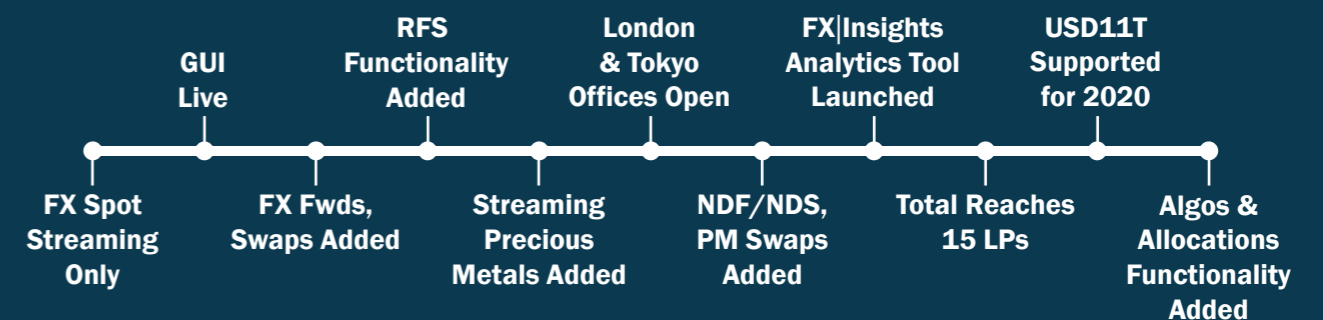
Michael Siwek, Founding Partner and Global Head of Sales at DMALINK, said: "The ACI's drive to strengthen international relations is in line with our approach to connecting counterparties on the platform, especially in emerging markets. We look forward to working closely with ACI Russia and local national associations."



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## FXCM Pro and Integral launch first cleared CFD platform

FXCM Pro and Integral have announced the launch of a centrally cleared platform for CFDs. Through this new service, the first cleared contract for CFD users was executed with liquidity for the transaction provided by Jump Trading, a global leader in FX and CFD market making.

The CFD Prime platform brings all the widely recognized benefits of Prime Brokerage to the CFD market, including consolidated margin, account opening and netting, resulting in reduced transacting costs. Through Integral's market leading technology, users are able to trade in standardized CFD products including major indices, commodities and crypto currencies, utilizing the prime brokerage services of FXCM Pro in conjunction with liquidity from market makers including Jump Trading. FXCM Pro will provide its balance sheet along with its battle-tested post-trade infrastructure to provide clients with the margin

and operational benefits of a single account, while Integral's technology platform allows clients to use a single connection to get aggregated prices and transact with multiple liquidity providers without having to form multiple bilateral relationships.

Brendan Callan, CEO of FXCM Group, commented: "We are committed to upgrading the trading experiences of our clients, and our new CFD Prime service is the latest in the long line of our innovations designed to do exactly that. We're harnessing 20 years of experience, as well as leveraging the latest advancements in technology to pave the way for a more diverse and vibrant global CFD trading community on our platform."

Harpal Sandhu, Founder and CEO of Integral, said: "Integral's innovations have always been centered on providing clients with unrivalled access to credit and liquidity. Unlocking direct access to leading CFD market makers



Brendan Callan

through a single credit and technology relationship is a big step forward in what has been a bilateral market, until now." Bo Bjurgert, Head of Business Development at Jump Trading, added: "This innovation is a truly ground-breaking development in the CFD market structure. By enabling LPs and customers to trade directly with each other, without the burden of managing multiple bilateral relationships, traders of CFD products will realize significant liquidity and cost benefits."

## Fenics Market Data upgrades its FXO service

Fenics Market Data has announced the launch of its latest upgrade to



Rich Winter

its FXO volatility service, FMD FXO 2.0 ("FXO 2.0"). FXO 2.0 combines machine learning with improved analytics to deliver over 300 currency pairs and 27 precious metal pairs, improving the surfaces with more wing data points and long dated tenors. FMD market spreads now update more dynamically based on liquidity information from BGC Partners' trading venues and its award-winning broking divisions. Rich Winter, Senior Managing

Director and Head of Fenics Market Data and Information Analytics, said: "Our FXO offering was already very strong, built on the capital backed data from our interdealer brokerage businesses. We invested further in our FXO volatility service to address a wider range of data usage by our clients. The FX Markets award for Best Market Data Provider in 2021 is testament to the hugely valuable set of tools we now have for our clients."

# 12 global banks participate in our industry pilot to develop an alternative PVP solution

Each day we settle over **USD5.5 trillion of payments in 18 of the most actively traded currencies globally, protecting our members and their clients from the most significant risk in the FX market – settlement risk. We do this by simultaneously settling payments relating to FX trades using our unique payment-versus-payment (PvP) system.**

Recent public policy initiatives, such as the Financial Stability Board's Cross Border Payments Roadmap and the updated FX Global Code, acknowledge the need for greater PVP adoption.

CLS is uniquely placed to work with the FX market to solve this challenge. The participation of 12 global banks in our industry pilot is a vote of confidence in our ability to develop an alternative PVP solution to further mitigate settlement risk and unlock liquidity for a wider range of currencies and market participants.

Find out more about how we are supporting the FX ecosystem: [cls-group.com](https://www.cls-group.com)

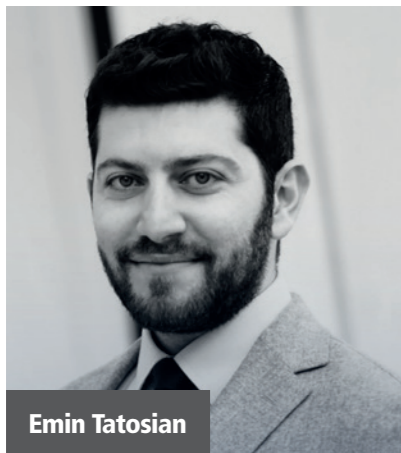


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# How FX HedgePool harnessed the power of 10X Innovation Velocity to reach \$3.2T in just 2 years

FX HedgePool is transforming the world's largest financial market with its FX swap matching platform. The platform, which enables direct trading between institutional investors, has matched more than \$3.2 trillion of FX swaps since inception. We spoke with its Co-founder and CTO, Emin Tatosian, to find out how they've achieved so much in less than 2 years.



Emin Tatosian

## What is 10X Innovation Velocity?

I see it as the rate at which a team releases new products that deliver deep and meaningful value to users. '10X' refers to a rate that is an order of magnitude faster than competitors at this. For instance, while incumbents in our industry manage an average of three product releases each year, FX HedgePool achieves around 30. It's an incredibly exhilarating mode to operate in and one that powers transformational change.

## How have you achieved this blistering rate of innovation?

It's the result of a deliberate and methodical effort to architect a team and an environment that encourages and facilitates rapid innovation. We've spent the past 2 years curating a team that's

comprising of young talent and seasoned industry specialists – an essential balance for rapid and insightful product development. In addition, we've carefully selected modern tools and techniques that support a well-rehearsed process for quickly bringing ideas to life. All of this is guided by our core product development principles, such as an unwavering focus on client needs and caring deeply about quality. Finally, achieving and maintaining this level of speed and agility must be an ongoing effort, otherwise hard-earned gains tend to quickly erode away.

## How has FX HedgePool harnessed the power of 10X Innovation Velocity to tackle a market structure challenge dating back over 200 years?

Reshaping an established industry takes an immense amount of persistent effort. While our journey is guided by a desire to modernize the FX market for the betterment of all, it's filled with thousands of micro trials and errors. The freedom to challenge conventional ideas, to propose novel solutions, and rapidly deliver them to clients are central to effecting change of this magnitude.

Doing so at a more pedestrian pace would take too long or simply not deliver enough change to make a

difference. So, we're always pushing to deliver products in days and weeks, rather than months and years. Our first prototype of a platform enabling direct trading between institutional investors was designed and developed in just four weeks. The minimum viable product that followed and facilitated the first ever live peer-to-peer FX swaps trade was built in 16 weeks.

It's this high rate of productivity that attracts enthusiastic collaboration from clients and industry experts, not to mention talented technologists and domain experts who want to leave their mark on the world's largest financial market.

## What's next for FX HedgePool?

We're an intentionally compact team with an audacious plan to transform the financial markets. Our technology enables institutional investors to source liquidity directly from one another, while banks optimize their balance sheets. This strips out unnecessary costs and improves performance for underlying investors. Guided by this "win-win-win" commitment and a world-class execution capability, we'll continue to find and solve market inefficiencies using cutting-edge technology and 10X Innovation Velocity.

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# CLS collaborates with 12 global banks to pilot PvP solution for a wider range of currencies

CLS recently announced the formation of a working group of 12 settlement members that are participating in a pilot to evaluate potential payment-versus-payment (PvP) solutions for currencies that are not currently eligible for CLSsettlement. CLS's Global Head of Product, Keith Tippell, explains the drivers behind this initiative and the issues it seeks to address.



Keith Tippell

## What industry issues will the alternative PvP model address?

Settlement risk, the predominant threat currently facing the foreign exchange market, is the risk that one party delivers the currency it sold

but does not receive the currency it bought from its counterparty, resulting in a loss of principal. Recently, there has been a rise in settlement risk due to an increase in global trading of currencies that are not eligible for CLSsettlement, our PvP settlement service.

This is why CLS, which is uniquely placed at the heart of the FX ecosystem, is collaborating with the public and private side to address rising settlement risk by developing an alternative PvP solution for a broader range of currencies and market participants. In addition to settlement risk mitigation, the service will also deliver liquidity optimization and enhanced operational processes.

## Why is there such an imperative to solve for the increase in settlement risk now?

Policymakers and market participants alike are calling for greater adoption of PvP within the FX market to further enhance financial stability. There are two public policy initiatives underway to respond to this industry challenge, including the work done by the *Committee on Payments and Market Infrastructures*, which led to a recent initiative to encourage PvP adoption across the FX market through building block 9 of the Financial Stability Board's (FSB) "Enhancing Cross-Border Payments Stage 3" roadmap.

The recent update to the FX Global Code by the Global Foreign Exchange

Committee (GFXC), also places greater emphasis on the use of PvP settlement mechanisms where available and provides more detailed guidance on the management of settlement risk where PvP settlement is not available.

## With which organizations is CLS collaborating for the initiative?

As a financial market infrastructure (FMI) that operates the leading settlement system for FX transactions (CLSsettlement), we are uniquely positioned to work closely with both the public and private side to highlight the importance of settlement risk. We have been raising awareness of the issue by presenting to the GFXC and several regional FX committees, responding to public policy consultations, publishing whitepapers and facilitating industry dialog. In parallel, we are conducting an industry pilot with 12 of our global settlement members to evaluate potential alternative PvP solutions. This includes a detailed data analysis of the settlement members' trade data to better understand settlement risk for currencies that are not currently eligible for CLSsettlement and the settlement mechanisms for FX trades settled in those currencies. This work will enable us to contribute the combined findings and conclusions towards a range of key policy initiatives.

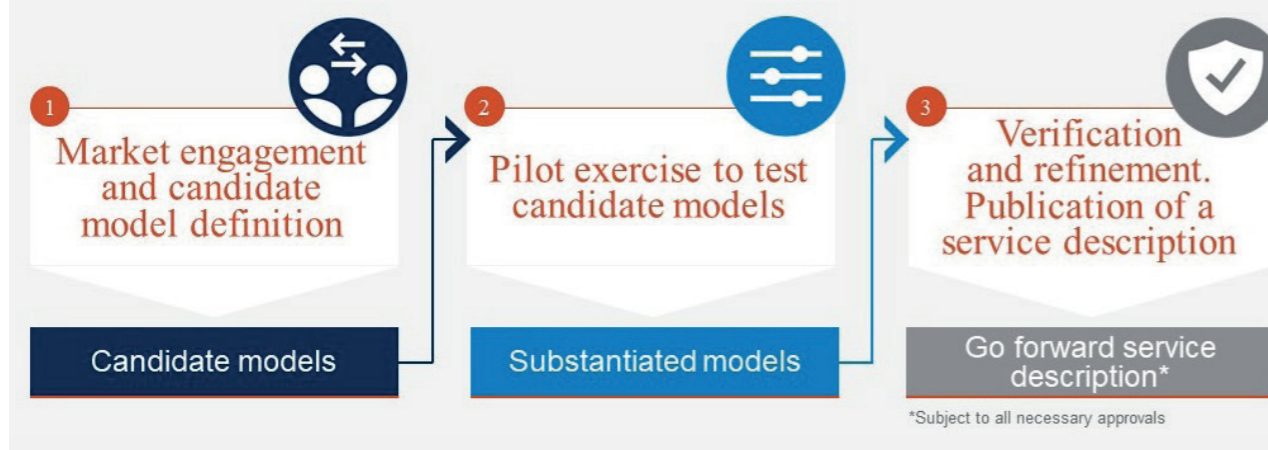
## Will the alternative PvP model be built from scratch?

As part of the industry pilot, we are exploring the feasibility of multiple alternative PvP designs with a view to broadening access to currencies and market participants. We recognize that there needs to be a significant degree of flexibility in the operating model and other aspects of the service design for any alternative solution to be successful in mitigating settlement risk and optimizing liquidity. In parallel, we are expanding access to CLSNet, our automated and standardized bilateral FX payment netting calculation service, to further facilitate settlement risk mitigation and liquidity efficiencies for a broader range of market participants.

An example of how we are diversifying connectivity options to CLSNet is in our collaboration with Finastra, one of the world's largest fintechs, where we are diversifying CLSNet's connectivity options by providing Finastra customers with direct access.

As an FMI at the center of the FX ecosystem, we have the experience and expertise of managing operations at scale to the highest of industry standards, and we are confident we can develop an alternative PvP solution that meets the needs of the industry.

## Our process towards an alternative PvP solution



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See full agenda here for the full speaker line-up and key sessions being covered.

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# TradeTechFX

## London, 8th and 9th of September, 2021

The September 2021 TradeTechFX event was held in the Hurlingham Club, London. This event was widely supported and was an important opportunity to take the pulse of the industry, both by listening to senior figures speaking on the panel sessions and informally with attendees connecting with each other over the two days.

### KEY TAKEAWAYS

360T was an important sponsor of the event and their top five takeaways from it were:

1. There's simply no replacement for in-person gatherings
2. The buy-side are becoming more data savvy
3. Benchmark data and compliance are key EMS focus points
4. Momentum is building around FX Futures
5. The industry is poised for change

#### 1. There's simply no replacement for in-person gatherings

There was a palpable excitement around this event, in large part because for most (if not all) of the attendees it was the first time that they had been able to actually sit down face-to-face with one another for about 18 months. All the virtual channels that market participants have been using to stay in contact during this period have been incredibly useful for maintaining relationships and ensuring that the disruption to businesses have remained minimal. With that being said, the TradeTech FX event was a strong reminder that while these channels can substitute for

in-person interaction they can never replicate it.

#### 2. The buy-side are becoming more data savvy

FX trading continues to become a more data-driven business but there exists clear disparities between the amount of data which market participants can access and the level of sophistication around the analytic tools available to them. For example, a large sell-side firm operating as a liquidity provider to many counterparties is likely to produce a lot more data which can then be used to refine their trading compared to an equities-focused investment manager who only trades FX in order to complete other transactions. Moreover, the sell-side firm is likely to have the resources necessary to hire quantitative experts and then arm them with all the tools they need to make use of this data; this might not be the case for the investment manager. What became evident during the TradeTech event,

however, is that this playing field is being levelled somewhat on a couple of fronts. The first is access to data. Buy-side firms are more conscious than ever of the need to access independent data in order to continuously monitor the pricing and behaviour of their counterparties, and this data is becoming more readily available to them. Importantly, whereas G10 Spot FX data has long been accessible to buy-side firms it is only recently that they have been able to get accurate, reliable data for other instruments, such as forwards and swaps.

The other change has been around the availability of analytics tools. There has been a proliferation of third-party transaction cost analysis (TCA) providers which have helped buy-side firms to measure and, hopefully, improve their FX trading. And now it seems that platform providers are increasingly giving these firms the tools needed to conduct their own execution analysis.



On top of all this, there is a noticeable and still growing sophistication amongst the buy-side with regards to the different ways that data can be used to analyse and understand the behaviour of their counterparties and improve the pricing that they see. This development is undoubtedly good for the buy-side, and good for the industry as a whole.

#### 3. Benchmark data and compliance are key EMS focus points

360T took part in a lively roundtable discussion at TradeTech which was centred around how buy-side demands for EMS platforms are evolving, and a number of illuminating points emerged from this. The first is how important it is for these firms to be able to integrate high quality benchmark data into their EMS at the point of execution and without interrupting their own existing workflows or having to do the engineering work themselves. This enables them to use the data as a tolerance check, ensuring that no trades are executed when the price is more than a predefined distance from their benchmark. Such functionality gives buy-side firms the confidence to automate parts of their trading activity, freeing their traders to focus on the most complex trades or other



more mission-critical tasks on the desk.

However, the roundtable participants made it very clear that a tolerance check like this is just one of a number of rules that they want in place for their low-touch or no-touch trading. The group emphasised that automated trading parameters should not be an "all-or-nothing" proposition and instead want a highly granular and bespoke set of rules which can be implemented according to their own specific needs. As is often the case these days, compliance was top of mind for many amongst the group, but this only served to highlight the importance of having this benchmark data within the EMS.

People pointed out that in addition to providing a good benchmark for trading activity, a system which automatically blocks out of tolerance trades can help firms to meet their best execution mandates. Indeed, much time was spent talking about the importance of having a good system of compliance alerts within an EMS for order handling and execution policy which allow users to easily document any reasons for abnormal trading activity so that their oversight team can refer to the data.

#### 4. Momentum is building around FX Futures

At these types of events there is always at least one panel focused on listed FX products and it's usually populated by a group of speakers who have a vested interest in this product segment, talking up the reasons why it's poised for growth. The TradeTech event stuck pretty close to this format (they did manage to get one buy-side firm on the panel) and yet something about this discussion felt very different from previous years. And perhaps the key reason why is because instead of just talking about why listed FX trading is likely to increase going forward they were also able to highlight the current growth that is occurring in the market. It very much seemed from the discussion that listed FX — and



TradeTechFX - London, 8th and 9th of September, 2021



FX Futures in particular — have some wind in their sails right now.

There are multiple reasons that could all work towards explaining this new momentum. One is the Uncleared Margin Rules (UMR), Phase 5 of which just came into effect this month after having been delayed from 2020. It seems that a whole swathe of buy-side firms have been caught up in Phase 5 of the rules, with even more due to comply with them by

September 2021. UMR makes it more capital intensive for firms to trade certain products on a bilateral basis, and hence it has been widely expected that they could push more FX market participants to look at both FX Futures and OTC FX clearing.

Another reason is the expansion of the listed FX products on offer. For example, the Eurex representative on the panel was able to tout the launch of USD/KRW Futures which

are fungible with the corresponding contract listed on the Korea Exchange (KRX), which is a very frequently traded product. The idea behind this is that global market participants are now able to trade Korean won Futures at Eurex during core European and North American trading hours. Eurex has also recently launched seven new FX Futures for Scandinavian currencies as it seeks to position itself as the European hub for listed FX. And who knows, maybe another reason for the uptick in listed FX trading could be that the message about the advantages these products can offer is, after all these years of panel discussions, getting through to the industry?

**5. The industry is poised for change**

An overarching theme across the entire TradeTech event this year was that there appears to be a significant and growing appetite for change amongst the buy-side. Many of these firms felt that they were forced to put projects or new technology implementations

on hold while they grappled with the impact of the pandemic on their business. With something akin to normalcy now established, even if for some firms “normal” looks a little different than it did before the pandemic, it seems like many of these firms are now eager to make up for lost time. Some firms expressed a desire to implement more modern FX trading systems which can enable them to fully optimise their workflow across the trade lifecycle whilst also being flexible enough to meet their evolving execution demands. There was talk about new ways of trading, with peer-to-peer platform providers being conspicuously present on the stage this year.

And perhaps unsurprisingly, cryptocurrencies were a topic that somehow managed to find their way into the conversation during most of the panels on the first day of the event. This might prove to be significant because the TradeTech event was largely attended by large institutional FX market participants,



and it suggests that they are increasingly also interested in the crypto space.

The different ways that buy-side firms are accessing and using market data were a theme that weaved between nearly all of the panel sessions. And while there has been a lot of talk about why buy-side firms want to automate parts of their FX trading and how they should go about it, the sense from this event was very

much that these firms are now taking concrete steps down this path.

Finally, it feels like perhaps the pandemic has caused something of a mental shift in the FX industry. We have all been confronted with unique challenges and been forced to think and behave differently for a year-and-a-half now, and as a consequence it seems that some parts of the industry are more open to embracing change than they have been in some time.

RECENT EVENT



Photographs by Richard Hadley



A stand-out-from-the-crowd platform with unique features



# The evolution of the FX Swaps market - How electronification is driving change

A famously staid market, FX Swaps have witnessed increased activity in recent times, bringing new challenges. Electronification is helping clients deal with them but bring issues of their own. Vivek Shankar explores how the market is evolving to account for these new factors.



Vivek Shankar

The institutional FX markets have experienced a steady increase in electronification. While the spot market has gradually moved towards sophisticated electronic solutions, the FX swaps market has held steadfast against this change. Trades are traditionally voice-based and counterparty credit checks require significant manual intervention.

However, thanks to the COVID pandemic and improved technology, there are signs that this last bastion of the old FX market is beginning to evolve. The Bank of International Settlements' 2019 Triennial Central Bank Survey of Foreign Exchange and Over-the-counter (OTC) Derivatives

Markets highlighted that FX swaps' daily turnover rose by 34.7% since 2016, an additional \$825 billion swaps traded per day.

This activity is far greater than the growth in the broader FX industry. Clearly, a few factors are driving the growth of this historically rigid industry. What are they and why are they proving so effective?

### CATALYSTS FOR CHANGE

The first hint of major change in the swaps market occurred way back in 1997, with the introduction of Reuters' D2-2 for forwards. Despite much talk of the promise of electronification held for the market, there weren't any significant developments. Banks brought some degree of automation to swaps by including them as RFQs and streams on their single dealer platforms. A few MDPs followed suit but these moves hardly rate compared to the way the spot FX market evolved.

One explanation for the lack of change is that swaps have traditionally been an administration trade. As long as the spreads were tight, clients were happy with what they received. Challenges brought about by Dodd-

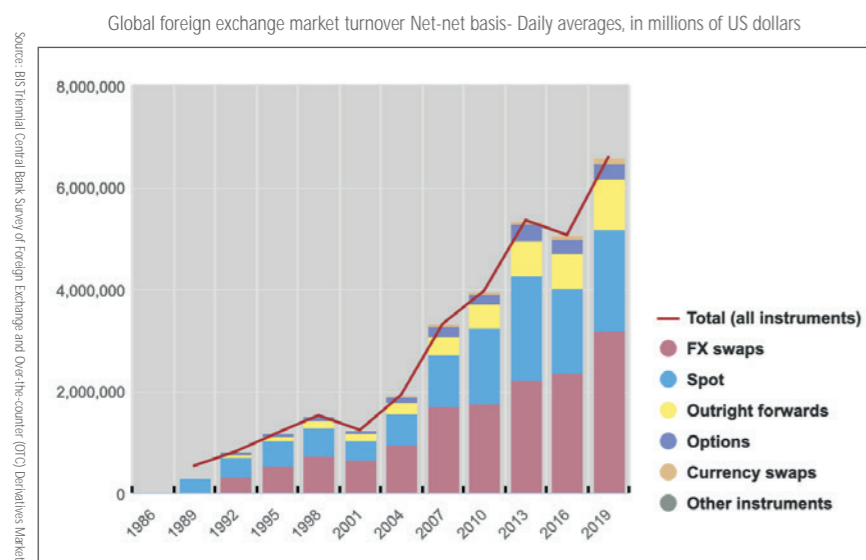
Frank that caused cash hemorrhaging in the spot business also prompted banks to maintain the status quo in forwards, while they addressed those issues.

Paul Clarke, Head of FX Venues at Refinitiv has a few thoughts on the subject. "I agree, firms have been focussed on other instruments and business lines without having a specific issue to solve in swaps." Clarke also points out a few other reasons. "First of all FX Swaps, or at least in many pairs and for a large part of the curve, are not as liquid as other instruments such as FX Spot that are traded more electronically," he says. "There are also complications to trading swaps electronically such as credit and usage of collateral."

Finally, the flat interest rate environment since the financial crisis of 2008 has left banks with little money to be made in forwards. As a result, most banks are comfortable playing the role of a broker and facilitating customer business.

This picture has changed recently and has brought turbulence to a famously staid market. Traditionally, repos and

The evolution of the FX Swaps market - How electrification is driving change



FX swaps' daily turnover rose by 34.7% since 2016

money markets have been the venues of choice for firms looking to roll, hedge, or fund their positions. These days, the FX swaps market is fulfilling these needs.

The off-balance sheet nature of swaps makes it easier for banks to meet tighter cash reserve and debt regulations, which has contributed to increasing FX swap activity. Furthermore, the evolution of standardized counterparty credit risk models ensures that swaps are the most cost-effective solution.

Robin Nicholas, Head of Swap Product at 360T Trading Networks (360T), believes regulation has driven change. "Regulation has played its part; increased capital and collateral requirements have duly increased the funding needs with FX swaps being able to provide a cost-effective means of meeting these obligations" he says.

Could the continued rally in the stock markets have anything to do with the rise in swap activity? Nicholas believes so. "It has driven increased passive hedging from other business lines too, led by the ongoing search for liquidity to satisfy this demand there has been a surge in demand for EFPs and FX swaps"

As a result, the swaps market is flush with new participants who are questioning the structure of the market and the viability of existing solutions. The suitability of traditional infrastructure is under scrutiny and is being deemed increasingly inadequate given the market's size and importance to the wider financial system.

The COVID pandemic placed the voice-driven nature of the market under scrutiny. Traders working from home found it impossible to deal with voice brokers efficiently, and this has precipitated a push for electrification from higher levels within banks. The costs associated with trading seats are also becoming an issue as regulation and the need for greater bottom lines make themselves apparent.

The result is a greater demand for automation, transparency, and communication in the market.

**ELECTRONIC SOLUTIONS OPEN NEW OPPORTUNITIES**

The interest in electrification is emanating from both the short and long ends of the curve. More clients are interested in becoming market makers by posting interest, something

that pushed Refinitiv to launch their Matching Forwards API in 2020.

"eTrading groups want to be able to hedge their forwards exposure quickly and efficiently, and the API allows them to do that directly rather than passing orders and positions to their manual desk for execution" says Clarke. He also points out that increased volumes create a need for efficient swap execution, and the API allows banks to execute electronically along the curve.

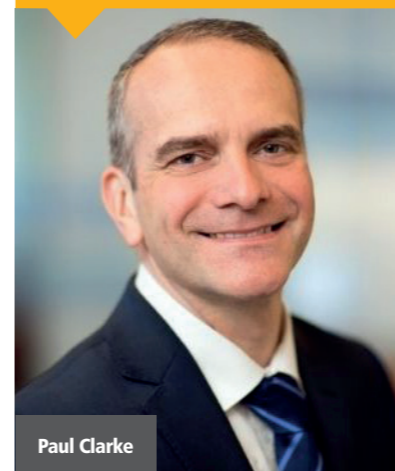
"The API, and increased liquidity we see on the Forwards Matching platform," he explains, "give participants access to better prices and liquidity, and API participants have a wide set of counterparties to trade with."

Service providers are taking infrastructure costs into account when developing products, which is leading to innovative solutions. Peer Joost, COO of eFX pricing solutions provider DIGITEC is well aware of the need to reduce this burden when proposing solutions. "Only the largest banks can justify selecting a pricing engine for one asset class and even those banks are looking for increased efficiencies across their business lines," he explains.

"With this in mind we developed the D3 pricing engine to support a wide range of assets, including FX Swaps, NDFs, Money Markets, Precious Metals, Interest Rates and Crypto."

Refinitiv has also tackled the problem by simplifying their solutions. The company recently launched a plug-in that banks can use to publish prices, eliminating the need to code to their API. "Our Excel plug-in, called "MAPI Lite", allows clients to leverage their own pricing, submit orders and execute directly from Excel. That reduces coding for clients and allows

"I think the evolution of the swaps markets, at least for the next few years, will be around more effective credit solutions."



Forward traders to price and trade along the curve more efficiently" explains Clarke.

Joost explains how these solutions feed innovation. "The combination of advanced pricing and analytics technology with data provision is a key differentiator in the FX Swaps market" he says. "There is a symbiotic relationship between D3 enabling increased automation and accurate pricing, which feeds the data in Swaps Data Feed (created in partnership with 360T). In turn Swaps Data Feed data improves the accuracy of other banks' pricing using D3."

At the short end of the curve, automated pricing has become a staple over the past few years. The rise of new market participants is also driving innovation. For instance, auto-hedging has long been a barrier to swap market electrification. Collateral management has always been a hot-button issue, and it has needed manual intervention to determine credit availability for short-term funding.

360T believes it has the solution for this problem. Coding to an API is impossible as long as a manual check exists. The company's 360TGTX MidMatch solution aims to remove

this barrier. The product uses 360T and DIGITEC's Swaps Data Feed as a reference for grey-book mid-market risk exchange. 360T's Nicholas believes that the manual credit checking process that persists today can be automated. "Clients can utilise the 360TGTX MidMatch API connecting clients' proprietary credit systems directly or members can use 360T's sophisticated Limit Monitor to manage their credit allocations on the platform."

There are other benefits to 360T's solution as well. "The average duration of swaps is 65% under a week, and 92% under 3 months; the short date funding or the rolling of spot positions to the nearest IMM date have often been seen as administrative burdens," explains Nicholas. "360TGTX MidMatch removes the associated manual processes such as price discovery and manual credit checking by providing a centralised order book with the option to exchange risk at Mid and an automated credit process."

In addition, he points out that it also supports a number of fixed date

forward forwards, in particular the IMM rolls, and the month, quarter, and year end rolls. "These are interesting to our members as their clients start to roll positions earlier to avoid the potential liquidity squeezes in the run up to the date" he says.

The aim is to enhance liquidity and improve price transparency, both of which are sorely needed as FX swaps become the funding vehicle of choice in the financial ecosystem. Products like 360TGTX MidMatch are also opening new opportunities in the market.

For instance, 360TGTX MidMatch creates the opportunity to earn revenue from auto-trading swaps and including them as a part of existing algo execution suites. Automated trading will reduce costs and increase efficiency, something that participants have repeatedly witnessed in the spot and credit markets. Spreads will also eventually decrease, which leads to a fairer price discovery process.

"Larger dealers and regional specialists can stream their curves and market make to the orderbook and also electronically post their interest at mid" says Nicholas. "We also see opportunities for automation for



The continued rally in the stock markets has indirectly led to a surge in demand for FX swaps

The evolution of the FX Swaps market - How electrification is driving change

“The subject of automated credit has certainly been challenging; understandably the industry has been wary of placing credit with third parties.”



Robin Nicholas

Treasury and funding desks in the short dates, and for members wishing to auto-hedge client interest.”

DIGITEC’s Joost believes that electrification is a no-brainer for firms in this space. “Increased electrification, automation and the use of sophisticated tools allow banks to increase their product range and, ultimately, their market making and trading volumes” he points out. For instance, “the combined services of D3 and SDF enable them to expand their offering beyond G10 and specialist currencies. Additionally, workflow efficiency is increased, enabling traders to diversify trading books and manage multiple instruments.”

He highlights that DIGITEC clients “typically double the number of instruments they are pricing once the products are live”, a clear indication of the benefits of adopting sophisticated electronic solutions.

**CHALLENGES TO ADOPTION**

Despite these advantages, there is significant pushback. Inertia is one of the causes. Voice-based brokers have been extremely effective in selling

their services to the market, and have entrenched positions. Redesigning existing processes is a challenge, and for now, electronic solutions providers are working on augmenting existing workflows, instead of overhauling them.

Service providers are working on supporting traditional traders while enhancing the e-trader execution experience. Refinitiv’s Clarke says “Manual traders will continue to get the benefit of improved pricing and liquidity that comes from the API order activity. As an all-to-all central limit order book, manual and API orders can match and trade with each other. The introduction of MAPI Lite is also intended to allow manual traders to execute more effectively, particularly if they want to make prices along a curve.”

Automating credit approvals is also a challenge thanks to the subjective decisions that need to be made. A manual check solves this issue and coding that degree of subjectivity is a challenge. Some providers are proposing solutions that go a long way towards eliminating these concerns. For instance, 360T recommends integrating the institution’s proprietary credit engine to 360TGTX MidMatch or using the company’s Limit Monitor to create parameterized rules surrounding credit risk assessments.

Nicholas understands the concerns surrounding the electrification issue. “The subject of automated credit has certainly been challenging; understandably the industry has been wary of placing credit with third parties. However, direct engagement

with credit and risk officers is helping us to win hearts and minds” he says. 360T aims to simplify these processes as much as possible.

To this end, Nicholas says that “360T offers a granular low latency pre-trade credit check tool that can be maintained manually or via REST API. 360TGTX MidMatch also provides simple API connectivity to a participant’s own sophisticated credit engine.”

Service providers are going to great pains to point out that while these challenges are significant, the benefits outweigh the costs. Ultimately, bringing transparency and efficiency to the biggest segment of the biggest market in the world is imperative. Electrification also brings various market participants together thanks to the certainty of a trade going through. Automated credit helps build confidence and eliminates the need for clients to post interest in a dark environment.

Joost highlights another challenge that DIGITEC has encountered. “A key challenge for us was that with the recent evolution and increased electrification of the FX Swaps market, smaller banks also wanted to use our services but could not justify the investment in on-premise technology.” DIGITEC responded by developing a hosted service, deploying D3 to the cloud.

“This has made D3 available to an expanded group of banks and increasingly Asset Managers, as their technology requirements evolve. Since our launch of the Cloud earlier this year, 100% of new clients have connected to the hosted service” Joost says.

Currently, fungibility and the lack of liquidity are also proving a challenge.

“The combination of advanced pricing and analytics technology with data provision is a key differentiator in the FX Swaps market”



Peer Joost

CME’s FX Link offers a cleared pool of liquidity for FX swaps, but it lacks access to an OTC forwards platform that can enhance liquidity. Blending a pool of OTC forwards and futures points to a possible opportunity that can affect the way the swaps market evolves.

Clarke however disagrees. “I don’t think that we will necessarily see a blending of OTC forwards and futures. I think the evolution of the swaps markets, at least for the next few years, will be around more effective credit solutions.” Nicholas believes that “...we have already seen venues providing the opportunity to transact futures, swaps, and EFPs. An increased fungibility between these liquidity pools would no doubt be well received. It is also likely that we will see more refined and erudite FX swap trading models via APIs.”

**FURTHER EVOLUTION**

The lack of back-end infrastructure to monitor financial resource optimization in the face of increased regulation is having a side effect on the FX swaps market. A BIS working paper highlighted that G-SIB regulations were prompting bigger

banks to pull out of credit and swaps markets at month and quarter ends. Furthermore, the study found that banks aiming to reduce their G-SIB rating through lower forward exposures received wider spreads at these times. The need for portfolio efficiency in interest rate markets might soon spill over to the FX swaps market, and this makes compression services invaluable. These services might result in better risk rebalancing, which in turn frees traders to offer tighter prices to clients.

UMR is another regulatory requirement that is driving change and it might hasten the creation of a clearing mechanism in the swaps markets. Dodd-Frank rules exempted FX back in 2014 thanks to the significant resources needed for building clearing infrastructure. Banks are also reluctant to adopt clearing because of the prospect of increased competition, similar to what happened with spot markets with the entry of non-bank market makers.

Nicholas says “The regulation and new capital model have certainly increased the client calls to and business with our colleagues in EUREX FX Clearing. UMR has been known about for some time, and so many are waiting to see the impact of September’s Phase 5.”

“We do expect Sa-CCR to have an impact on clients as it potentially requires participants to hold more capital as a result of their trading” Clarke adds. “This is something the LCH team in the LSEG Post Trade division have been looking at together with a number of their clients to build a proof-of-concept for

clearing of FX forwards and swaps.” Increased electrification is pushing clients towards SDPs, despite MiFID II regulations offering clients the promise of better execution on MDPs. As electrification aids greater customization, it remains to be seen to what extent clients will move towards SDPs that can offer tailored execution.

Finally, as with all talk of electrification, the role of human swaps traders is being questioned. Most service providers point out that technology isn’t meant to replace humans, but augment their skills. Automation offers them a way to deploy their abilities in better ways, and increase bank bottom lines in the process.

**NEW PROCESSES**

The FX swaps market has resisted change for a long time but regulation, technology, and the need for transparency are creating new opportunities and solutions. As swaps continue to grow as a source of global funding, there’s no doubt that the need for better infrastructure will increase.

As Clarke puts it, “It will take time for the Swaps market to evolve to being more electronic. There will be continued effort to improve efficiency, so I can see an increase in direct stream based execution in Swaps, and continued credit efficiencies to support the all-to-all markets which a lot of our clients tell us they value highly.”

Nicholas foresees growth in the immediate future. “Our expectation is that FX swaps will continue to grow. The continued demands for FX swaps as a funding instrument, with reduced friction from new processes like streaming liquidity, auto-hedging, spread reduction through mid-matching, and the automation of pre-trade credit checking will all support this.”

# The shifting landscape of FX execution for Fund Managers

By Joe McKenna, Business Development Director at MilltechFX



Joe McKenna

If you are the CFO, COO, FD, FC or Treasurer at a fund manager, there is an increasing likelihood that at some point in your career you will encounter foreign exchange (FX). The FX exposure might arise from share class hedging for overseas investors, acquiring foreign currency assets, a currency mismatch between management fee income and expenditure or an indirect exposure at a portfolio company.

Whether it is an occasional FX spot transaction, a rolling hedge program or a highly bespoke solution, fund managers with foreign exchange exposure not only have to navigate the sometimes complex and volatile world of foreign currency trading, but also decide what organization to partner with to help them go about it. In the noisy marketplace of FX

execution, a fund manager has a long list of potential counterparties, advisors and electronic trading platforms available to them, so it can be confusing to know the best way forward.

As dry powder and investment activity start to pick up in a post-pandemic World, we have highlighted what we believe every fund manager should consider before choosing an FX partner.

## BEST EXECUTION AND PRICE DISCOVERY

Best execution has been in the spotlight for some time. MiFID II regulation requires investment firms take all "sufficient" steps to obtain the best possible result for the client on an on-going basis. Further, the FX Global Code of Conduct applied principles for dealing with market participants in a consistent and appropriately transparent manner. There are many factors to take into consideration in the quest for best execution and one of those is price, or in FX markets, the best available exchange rate.

Long before MiFID II, a fund manager with only one FX counterparty at their disposal might have used FX spot mid-rates to apply some 'price tension'. The difference between the price quoted to them and the mid-rate online could help to determine the spread (A.K.A. the fee) charged by

their counterparty, and the General Partner ("GP") could then assess whether the cost is 'fair' in exchange for the service they receive. However, price tension does not give way to best execution and best execution is simply not possible with a single counterparty.

Streaming online rates are only indicative and thus unlikely to be tradeable at that moment in time for the GP's exact trade nominal. There are many factors that can affect the quoted FX rate; trade size, liquidity of the currency pair, market conditions, credit charges, delays from using non-electronic execution routes, and forward points, among others. FX execution should be a partnership in understanding and then applying an optimal way of executing each client's business for the 'best possible outcome', whether this is utilising benchmark execution or other methods, and a lack of transparency can leave the fund manager in the position of being none the wiser whether what they are getting is a competitive rate or not.

For this reason, to get an order executed at the most advantageous rate, fund managers commonly look to diversify their pool of FX counterparties. That way, with multiple prices to choose from, GPs can pick the rate that is best for them, hence best execution.

However, the quest for best execution raises many questions. How many FX counterparties do you need to achieve best execution? Is best execution just about the best FX rate or are there other considerations? What's the best process for price discovery – should it involve multiple inputs from streaming rates, quotes in an e-mail, calling around? What's the operational process involved and does ease of use become a factor? How should a GP

demonstrate best execution to their investors on an ongoing basis?

## ONGOING, INDEPENDENT TCA

Before reviewing their current price discovery process, a fund manager must first understand how much they are being charged for the execution of their FX transactions.

Transaction Cost Analysis (TCA) goes hand-in-hand with best execution

and can be used as an ongoing audit of FX practices as well as to hold existing FX counterparties accountable. The goal of TCA might not just be to gain a competitive advantage when trading FX but potentially to comply with a best execution policy that is reported back to partners and investors alike. To perform a TCA, historical trade data is required – currency pair, volume, product (spot, forward etc) and time stamps. To calculate the transaction cost on a trade, the actual rate the trade was executed at is compared to the independent mid-market rate at the point in time of execution. This difference multiplied by the trade notional equals the execution cost on that trade. A fund manager might consider using an independent TCA provider that can assess the performance of their FX counterparties in a consistent manner over time.

Typically, a TCA will show the overall portfolio cost over a given time period, a detailed breakdown of costs for each currency pair, and changes in costs depending on the type of FX product used. A GP can then use this data to assess the performance of counterparties. Ongoing, quarterly TCA analysis can also be embedded as a new operational practice to ensure consistent FX execution performance. If a fund manager is considering a TCA, they must first ensure they are collecting the necessary FX data from their counterparties – it should be fully transparent and broken down according to product, price, currency pair and including as detailed a time stamp as possible.

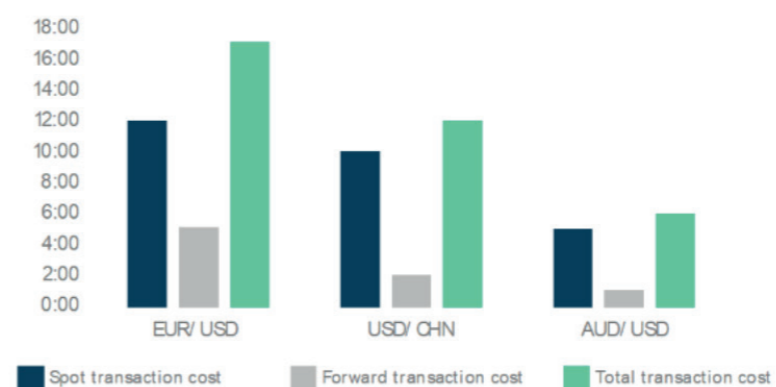
## EFFICIENT USE OF CAPITAL

We already know that having the ability to put trades up for competition is typically central to best execution. However, FX pricing shouldn't be the only thing a fund manager considers

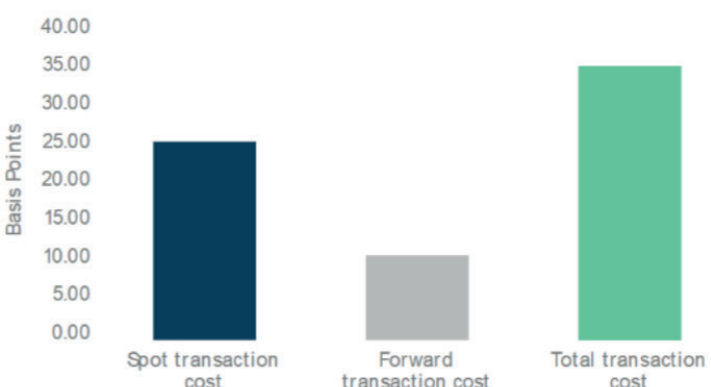
### Sample transaction cost overview

Total Volume Analysed (USD Billions)	3.3
Number of Trades	358
Total Portfolio Transaction Cost (bps)	35

### Transaction cost by currency pair



### Total transaction cost breakdown



The information above is for illustrative purposes only. Source: MGTS, BestX (04.06.2021)

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## The shifting landscape of FX execution for Fund Managers

– credit facilities for FX trading should also be taken into account.

Fund managers who hedge, using forward contracts for example, must also consider that placing a hedge typically requires margin to be posted against that position as collateral. Further, if the initial margin no longer covers the mark-to-market of a hedge, due to movements in the spot rate, the GP may be required to post additional, variation margin. Any capital posted as collateral, sitting dormant in a margin account and not invested, potentially earning higher returns, can cause a drag on fund performance. The FX risk, being mitigated with forward contracts, has been replaced with a potential liquidity risk.

One way around this issue is to trade via an uncollateralised FX facility so that the GP can hedge (using forwards) and not worry about posting margin. If the facility is uncollateralised up to a pre-determined figure, there is a cap on how far in the red your mark-to-market can go before your

counterparty has no further appetite to trade with you and starts calling for variation margin. This can result in fund managers spreading trades between different counterparties, with FX rates being a secondary consideration, to keep sufficient headroom on trading facilities and eliminate the need to post margin altogether.

### OPERATIONAL EFFICIENCY

For a fund manager, we know that best execution requires multiple counterparties, but before price discovery comes the search for eligible FX counterparties. Incumbent banking relationships are the logical place to start, and custodians, prime brokers or lenders may be able to offer FX trading services too. Where it could get challenging is establishing new relationships for FX only, as there is no guarantee a counterparty will want to onboard a client that only requires one of their services.

And then there's the setup phase. After negotiating the finer points of a non-disclosure agreement, a GP must

fill out paperwork, locate and share 'know-your-customer' documents and then go through a credit approval process. Credit approval can be particularly challenging; you should expect your chosen counterparties to look through investor commitments and underlying assets with a fine-tooth comb. Respective legal teams will need to work through ISDAs, CSAs and any other trading agreements before setup can even begin.

Once setup is complete, the process of price discovery can happen in a number of different ways – telephone dealing, onscreen quotes, chat messages and e-mails. With multiple counterparties at a fund managers' disposal, it can soon turn into a time-consuming, team operation to get the best available price from your chosen counterparties. Depending on how a fund manager goes about price discovery, there may be a tradeoff between inefficient booking systems versus the number of counterparties. For all of these reasons and more, the private capital market is moving towards solutions that assist in onboarding the fund manager with multiple banking counterparties and obtaining credit facilities with each bank simultaneously. Fund managers might also consider more centralised, digitised solutions that consolidate price discovery in one place at one time.

Now, GPs can go one step further. Beyond streamlining onboarding and credit with multiple counterparties and centralising price discovery, fund managers can even outsource the complete end-to-end workflow from calculating the FX position, to execution, to margining and settlement. Fund managers should also be able to request bespoke reporting or information flows to additional third parties such as Administrators and Regulators.



If a fund manager is considering a TCA, they must first ensure they are collecting the necessary FX data from their counterparties

# Phases five and six of UMR - How has FX adapted to new requirements and what challenges remain?



**While Phases one to four of UMR targeted large institutions, phases five and six focus on smaller firms with a relative lack of resources. How have firms coped with Phase five and what are the challenges ahead for Phase six? Vivek Shankar investigates.**

The global financial crisis left a lasting impact on the institutional markets. A raft of reforms aimed at reducing the risk firms carried on their books followed, and seemingly no financial product was left unaffected. The Basel Committee on Banking Supervision (BCBS) and The International Organization of Securities Commissions (IOSCO) created one of the most significant rulings affecting financial institutions.

First announced in phases, the BCBS-IOSCO rules introduced new margin requirements (UMR) for non-centrally cleared derivatives. The committees announced five phases for implementation (later extended to six), with each phase targeting smaller market participants. The initial phases affected the interdealer market and required participants with Average Aggregate Notional Amounts (AANA) greater than \$1.5 trillion to comply.

Phases five and six, which will go into effect in September 2021 and 2022 respectively, target firms with AANA lesser than \$50 billion. The result is several smaller institutions, and buy-side firms now find themselves in the spotlight. How are these firms gearing up to meet UMR requirements, and can electrification help ease the burden?

## SIGNIFICANT REGULATORY CHANGES

UMR rules target non-centrally cleared derivatives. From an FX perspective, products under the scanner include FX options, NDFs, physical FX forwards, hedging trades, and swaptions. Phase six of UMR was scheduled to

go into effect in September 2020, but the challenges wrought by the COVID pandemic resulted in a year's extension.

Phases five and six have long been identified as the most challenging ones, thanks to the size of affected participants. Smaller insurance firms, banking groups, and asset managers will be affected, and given their relative lack of resources, meeting UMR requirements will be tough.

"Resource constraints at smaller firms are part of the challenge, but there are other factors", says Bob Stewart, Executive Director of Institutional Trade Processing (ITP) at the Depository Trust and Clearing Corporation (DTCC). "Phase five saw approximately 300 firms in scope which is more than in total for the previous four phases. All of these firms were calling vendors,

custodians and counterparties in order to initiate reasonably complex risk-based exposure calculations, collateral account set-up, and legal documentation processes in much bigger numbers than before."

Stewart also points out that working from home during the pandemic posed serious challenges. He believes Phase six will present even bigger challenges. "Phase six impacts buy-side firms with more than \$8 billion average aggregate notional amounts (AANA), will see even more firms in scope (potentially up to 750 globally), and in this case, these are smaller firms who will tend to have less resources"

Broadly speaking, firms must implement Variation Margin (VM) and Initial Margin (IM) requirements on all their trades. VM is an established concept that is calculated from the market value of trades. However, IM is a new requirement that is a risk-based calculation and also includes a requirement for collateral segregation. Market participants will now have to identify in-scope trades, calculate the IM needed (both to post and receive), potentially source new collateral types and segregate any collateral exchanged.

Firms must also confirm the counterparties with whom they'll need to interact. Institutions will need to



Bob Stewart

**"Since Phase six impacts smaller buy-side firms with typically less middle- and back-office resources, these firms need to understand quickly what their requirements are and plan accordingly"**

### Phases five and six of UMR - How has FX adapted to new requirements and what challenges remain?

create segregated margin accounts with unaffiliated third-party custodians and negotiate control agreements. Affected firms will need to execute these steps well in advance since custodians have deadlines of their own to complete the onboarding process well ahead of the UMR cutoff date.

In addition to this, firms will also have to install systems and processes that ensure IM is adequately calculated and transferred to all counterparties. UMR will likely strain the resources of most buy-side firms, given that the majority of collateral management and transfer processes are executed manually currently.

“Since Phase six impacts smaller buy-side firms with typically less middle- and back-office resources, these firms need to understand quickly what their requirements are and plan accordingly” Stewart says. “Buy-side firms may want to perform their own high-level analysis of AANA ahead of their regulator’s mandated observation period, since this will give them a head start.”

Staffan Ahlner, Global Head of Collateral at State Street, echoes Stewart’s views when queried about the resource challenge facing firms in scope for Phases five and six. “Yes, our strongest recommendation is for firms to start now, if they already haven’t! Firms will face challenges across five areas: Documentation, data, analytics, transformation, and workflow.”

For instance, custodians currently manage multiple segregated accounts with dual sets of instructions to manage collateral release. It might be 2021, but most sell and buy-side firms still use fax to communicate release messages. The work-from-home situation imposed by the pandemic threw these processes into chaos since most employees didn’t have access to faxes from home. The result was

“Firms will face challenges across five areas: Documentation, data, analytics, transformation, and workflow’.”



Staffan Ahlner

in Phases four and five are unfamiliar. For starters, the IM calculation itself could prove problematic for most firms.

As Ahlner explains, “The challenge is the data coverage that is needed for the calculation. Depending on the trading strategies of the fund you could end up with a very broad set of instruments to calculate the exposure on. This is what will drive the data need.”

elevated rates of collateral settlement failures.

“There are two types of third-party segregated accounts – one of these is a fully-managed service offered by tri party agents, and the other is a simpler service based upon instructions sent by the pledgor to deliver or recall specific pieces of collateral” explains Stewart. “Opening either one of these account-types at a custodian bank and making sure that your counterparty has all the relevant details can be a long process. It is fair to say that a significant number of Phase six firms will have no experience with these account structures or the associated messaging.”

UMR imposes even more challenging guidelines, and it’s unlikely that the current state of collateral transfer will cope. In highly volatile times, a lack of insight into the status of collateral settlement might cause even more problems, if firms don’t take corrective action right now.

#### SIGNIFICANT CHALLENGES AHEAD

UMR introduces a set of operationally intensive steps. It also adds workflows with which most institutions targeted

UMR regulation stipulates that firms can calculate IM using a schedule-based calculation or regulatory-approved model-based calculation. Firms have leaned towards a model-based calculation, with many favoring ISDA’s Standard Initial Margin Model (SIMM). This requires firms to choose a sensitivity level for all in-scope trades.

Each trade can have an average of 20 sensitivities, and with over 150 sensitivities applicable to exotic trades, the data-crunching required to execute this step is significant. Following this, firms must feed the sensitivities into the SIMM model which will give them the total IM exposure for the secured party and the pledgor.

In past phases, most firms initially neglected to calculate IM twice for each counterparty, and many expect this mistake to repeat itself due to process unfamiliarity. The SIMM model also introduces technical challenges. The model accepts files in a specific format, called a Common Risk Interchange Format or CRIF. Institutions must also evaluate whether their existing systems are capable of handling the burden that IM calculations impose.

From an operational standpoint, buy-side firms will not be familiar with the mechanisms governing tri-party segregation accounts when interacting with their custodians. Many custodian banks are reluctant to accept cash as collateral since it impacts their leverage ratio negatively.

Therefore, institutions will have to transfer securities. The result is a new can of worms for the buy-side or those unfamiliar with a non-cash collateral exchange. How will these securities be valued? How will incoming pledges be valued? How will collateral concentration be monitored?

Ahlner believes these processes will pose a significant challenge. “Firms need to perform SIMM calculation to determine the IM amount, and beyond that, they need to set up a segregation service, to both receive and deliver collateral. All derivatives trades need to be recorded and managed,” he explains. “Legacy systems may hold data in one format and transformation of data is required to fit into the utilities. Data needs to be accurate and timely produced every day.”

All of this is even before getting into the details of SIMM-model calculations and ratifying legal agreements between counterparties. Existing operation workflows will have to be revamped and stress-tested before the deadline. Firms should not underestimate the complexity of these new workflows.

For instance, every counterparty will have different collateral arrangements, with some falling under the UMR-stipulated threshold. Handling the exchange of margin, monitoring margin levels, and handling disputes are critical processes firms must define and design.

Technology will assist in implementing new requirements but the question of dealing with legacy systems is a tough one. Many collateral management systems (CMS) were not built to handle IM pledgor and secured margin calls. Integrating the IM calculation engine into the CMS is also a deeply technical process, one that requires considerable resources.

While most Phase four participants have reacted well, the relatively small size of the average Phase five and six participants has observers wondering whether resource constraints might prove a significant roadblock.

Neil Murphy, Business Manager at TriOptima says “In many cases, the ‘pain’ of UMR is magnified for smaller firms. Not only do they face the challenge of calculating IM, but in many cases they are starting from a disadvantaged position in terms of collateral - often characterised by use of legacy technology (in some cases Excel!) and low levels of automation - but they also face meeting the same requirements as larger firms, but often with far less resources.”



Neil Murphy

“From a post-trade perspective, analytics can be used to lower the overall amount of IM collateral required, while simultaneously keeping risk exposure constant.”

#### ELECTRONIFICATION OFFERS SOLUTIONS AND DRIVES EVOLUTION

Given the complexity of these challenges and the real-time monitoring dynamic they introduce to operations, manual processes are unlikely to work. Automation is the key, and many firms have revamped their workflows accordingly.

With markets in an elongated bull run, cutting costs has become imperative for asset managers to boost returns, and outsourcing technical expertise has helped them revamp infrastructure cost-effectively. Vendors offer firms margin analytics platforms that bring transparency to the process. Traders can evaluate the margin implications of trade execution and post-trade costs before entering a trade.

Murphy lists some of the advantages on offer. “Used ahead of trade execution, analytics may assist a firm to determine the best venue to book a trade (cleared vs uncleared), or suggest the optimal counterparty by considering any benefit of threshold utilisation, or size of overall IM requirement. From a post-trade perspective, analytics can be used to lower the overall amount of IM collateral required, while simultaneously keeping risk exposure constant”

Vendors such as TriOptima offer end-to-end UMR suites that help firms both calculate margin requirements and handle the downstream processes. Central to this is provision of an IM calculator (including SIMM), dedicated margin call workflows and connectivity to Acadia for dispute resolution. Calls and collateral



### Phases five and six of UMR - How has FX adapted to new requirements and what challenges remain?

settlement are simplified thanks to real-time connectivity to Acadia's real-time messaging and triparty instruction via SWIFT.

"With use of TriOptima's triResolve service already standard for VM reconciliation, TriOptima partnered with Acadia to build a similar industry-standard platform to deliver IM reconciliation" explains Murphy. "In use across phase one to five firms, IM Exposure Manager (IMEM) provides an automated way to identify IM differences, whether driven by risk sensitivities or portfolio booking."

Murphy also highlights that TriOptima clients using their collateral service, triResolve Margin, benefit from a single process that allows them to manage both VM/IM call workflows, combined with additional transparency to investigate and manage disputes via triResolve & IMEM.

ISDA also requires firms to demonstrate the applicability of SIMM to their portfolios by running benchmarks and backtests. Vendors have developed sophisticated backtesting methods that help firms quickly demonstrate applicability. They also automatically update SIMM models whenever ISDA releases a new version.

UMR has forced larger portfolio managers to view their holdings differently due to greater margin requirements. Costs are a factor here as well, and portfolio optimization analytics are in great demand. Some vendors offer machine learning-driven solutions that propose a set of trades to reduce or optimize portfolio costs.

For instance, moving trades from one counterparty to another might reduce position carrying costs and impact the overall portfolio in a certain way. These sophisticated engines help asset managers understand all the implications of the costs connected to their portfolios.

As UMR becomes a reality for the majority of the market, certain trends are coming to light. First, it's becoming clearer by the day that many smaller firms impacted by the next phase are unprepared to handle the impact UMR will have on their businesses.

Managers who have adjusted to UMR regulations are now demanding greater access to data in the middle and back-office systems. The idea is to gain deeper visibility into the overall costs that their firms incur. The result is more demand for optimization algorithms and advanced analytics that

help clients trade more efficiently. Cloud migration is also on the rise, thanks to the desire for optimized costs. Scalable infrastructure with access to complex analytics is in high demand, and observers believe this trend will only accelerate.

"For many, the barrier to adopting or improving automation, has typically been the fractured state of technology - with firms using a myriad of systems to support the end-to-end process - and where replacement or upgrade to this process has been costly," explains Murphy. "Fortunately, in recent years more and more tools have emerged which allow firms to move faster, and further, down the path towards full automation."

State Street's Ahlner puts it more bluntly. "It is not possible to do UMR without technology, and UMR is really an ideal opportunity to revisit the collateral strategy of the firm."

#### OPPORTUNITY

The events of 2008 might have occurred over 13 years ago, a lifetime in the institutional FX markets, but their consequences reverberate to this day. UMR is a reality for institutional FX participants, and as more firms come under its purview, the degrees with which firms are prepared vary.

DTCC's Stewart believes UMR presents a unique opportunity, as opposed to a huge hurdle. "Firms should view the introduction of Phase five and, next year, Phase six of UMR as an opportunity to introduce best practices to their collateral management processes, including increased automation. Not only will this bring operational efficiencies and help firms comply with the regulatory mandate, but it will also enable them to utilise their available collateral more efficiently, thereby reducing costs, risks and improving their overall capital and liquidity management capabilities."



Most sell and buy-side firms still use fax to communicate collateral release messages and the work-from-home situation imposed by the pandemic threw these processes into chaos



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## Streaming NDFs: The race is on

As competition around Streaming NDFs heats up, Darryl Hooker, Head of NDF Strategy at 360T, outlines how trading venues are differentiating themselves in this product segment.



Darryl Hooker

In recent years we've seen two trends converge which have served to drive a sharp uptick in interest regarding Streaming NDFs.

The first is the remarkable growth story that we're seeing in local markets, particularly in South East Asia and parts of Latin America, which has created business opportunities in these countries for international firms, as well as for local suppliers of services and products. This in-turn naturally leads to more cross border transactions, which often require NDF trades due to local currency restrictions in these markets.

The second trend is that more NDF trading has shifted towards electronic channels. This has significantly increased the level and quality of data, analytics and liquidity around these products — all of which are crucial to building out a viable streaming pricing service.

The key benefit of streaming prices is that it provides FX market participants with a consistent and constant view of the market, rather than notifying your makers that you are now ready to do a trade. Having this continuous pricing available gives firms greater confidence when executing NDFs because they can see movements occurring in the market, identify when liquidity is optimal and determine when is the best time to trade.

### WINNERS AND LOSERS

Unsurprisingly though, 360T is not the only platform provider which has noticed these trends and consequently the race is on to become the ECN of choice for Streaming NDFs. And as in any race, there will be winners and losers in this product segment.

One factor that will be crucial in determining the success of a Streaming NDF offering will be the credit models that are available to buy-side market participants. As noted previously, a lot of the growth in NDF trading is coming not from speculators but from buy-side firms with natural business interests in local markets. As such they need to access NDF liquidity via ECNs rather than central limit order books (CLOBs) as they often don't have the credit relationships in place to trade via the latter.

This is why at 360T we have deliberately structured our Streaming NDFs offering to support bilateral

credit arrangements, prime broker (PB) intermediated trading and offer the ability to utilise a credit hub/ CCP. This provides the maximum flexibility for accessing this liquidity and enables us to bring together a very diverse range of participants together in one place.

Another key issue is the geographic reach, distribution, client base and presence of the venues available. This is because to have a truly heterogeneous cross-section of natural business interests present, which leads to a better NDF marketplace, platform providers need to be able to connect a wide array of local firms in onshore markets with offshore ones from across the globe. Hence, 360T has spent over 20 years building a diverse, global franchise which already today enables 350 organisations across 35 different countries to trade more than 175 different NDF currency pairs.

When it comes to NDFs, regulation is also a vital consideration. That is why at 360T we offer access to Streaming NDFs both OTC and via our fully regulated Swap Execution Facility (SEF) in the US.

Ultimately there's no one single factor that will determine the successful Streaming NDF liquidity pools. Instead, it will be about which platform can offer a variety of credit models, a diverse ecosystem of market participants, global reach and support, a regulated trading environment and flexible, high-performance technology.



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# Devexperts

A fintech provider pushing the boundaries of online trading for over 20 Years

Vitaly Kudinov

Devexperts was founded twenty years ago and has quickly become one of the leading specialist technology and trading software vendors for financial markets. The firm celebrates 20 years in the coming 2022 and is also a genuine technology pioneer in the online trading industry. E-Forex spoke with Vitaly Kudinov, Senior Vice President of Sales and Business Development at Devexperts, to learn more about the company's trading technology, services, and plans for the future.

**Vitaly, please tell us a little about your job and day to day responsibilities at Devexperts.**

My official position is stated as Senior Vice President of Sales and Business Development. Put simply, my job is to help financial services firms and our own Devexperts engineering team to meet somewhere in the middle in order to establish fruitful relationships. Being able to convert business goals into technological requirements is crucial for understanding whether these potential relationships can be mutually beneficial. My role is to bridge the gap between these parties and translate requirements in a manner that everyone can understand.

**Remind us of the range of Devexperts products and services and the types of financial trading firms you work with.**

The Devexperts family, which includes dxFeed, our market data subsidiary, specialises in software and data solutions for capital markets. In the two decades that we have been in business, our company has worked in all areas of the technology chain that allows brokers and exchanges to offer trading services to their clients. From custom multi-asset trading platforms and trading platforms as a service, to matching engines, risk management and reporting tools, market data services and custom feed construction, even trading simulators and other innovative solutions such as financial smart chatbots and a VR interface for traders.



Devexperts Munich office

**It's very difficult for brokers to really stand out from their competitors nowadays. How do you think technology can assist them to do so?**

If we look back to the history of online brokerage, barring the earliest days when the demand for trading services vastly outstripped the supply of available venues, it's always been

pretty challenging for newcomers to stand out. Brokers have traditionally competed on a number of fronts: trading platforms, client service, number of tradable assets, and fees. Only big brokers were (and still are) able to afford the development of their own custom trading platforms incorporating them with their vision. Smaller brokers have to play in certain



Thinking of competition between brokers for retail clients, we often forget that competition for developer talent nowadays is even greater

Devexperts - pushing the boundaries of online trading for over 20 Years



The Devexperts team at The iFX Expo Cyprus

other niches, either focusing on local markets or presenting themselves as boutiques, or doing both. But

that doesn't mean that the smaller brokers are without options. Today, technology is the differentiating factor

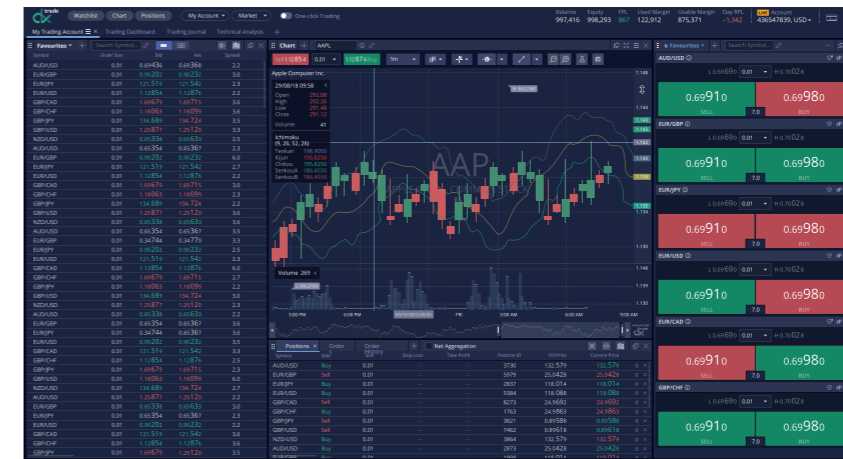
because it touches on all of the above and allows smaller, more agile teams to gain advantages over larger, slower moving entities. The quiet revolution we've been seeing in brokers keeping their pre-existing MT4/MT5 back-ends and commissioning all-new front-ends that are more suitable for the demands of today's traders is a perfect case in point. At Devexperts, we started out on our own journey focusing mostly on big brokers with the budgets to commission custom developments and see them through. This is what has allowed us to gain the expertise required to also be able to bring more affordable solutions to market that are more suitable to mid-sized brokers and startups.

**Devexperts has constructed numerous trading platforms from scratch over 20 years. What lessons have you learned about this very demanding development process that brokers should take note of?**

The truth, which unfortunately many only learn the hard way, is that software development is very



Devexperts R&D office: the pandemic offered us a great opportunity to start renovation in company offices



The most important feature of our DXtrade multi-asset platform is its modularity

expensive. In online trading, we're so focused on the competition between brokers for retail clients, we often forget that competition for developer talent across industries is even greater. To the point where today it's an extremely finite resource that's being pulled in so many different directions. The moral of the story is that complete, from scratch, custom development is not for the faint of heart.

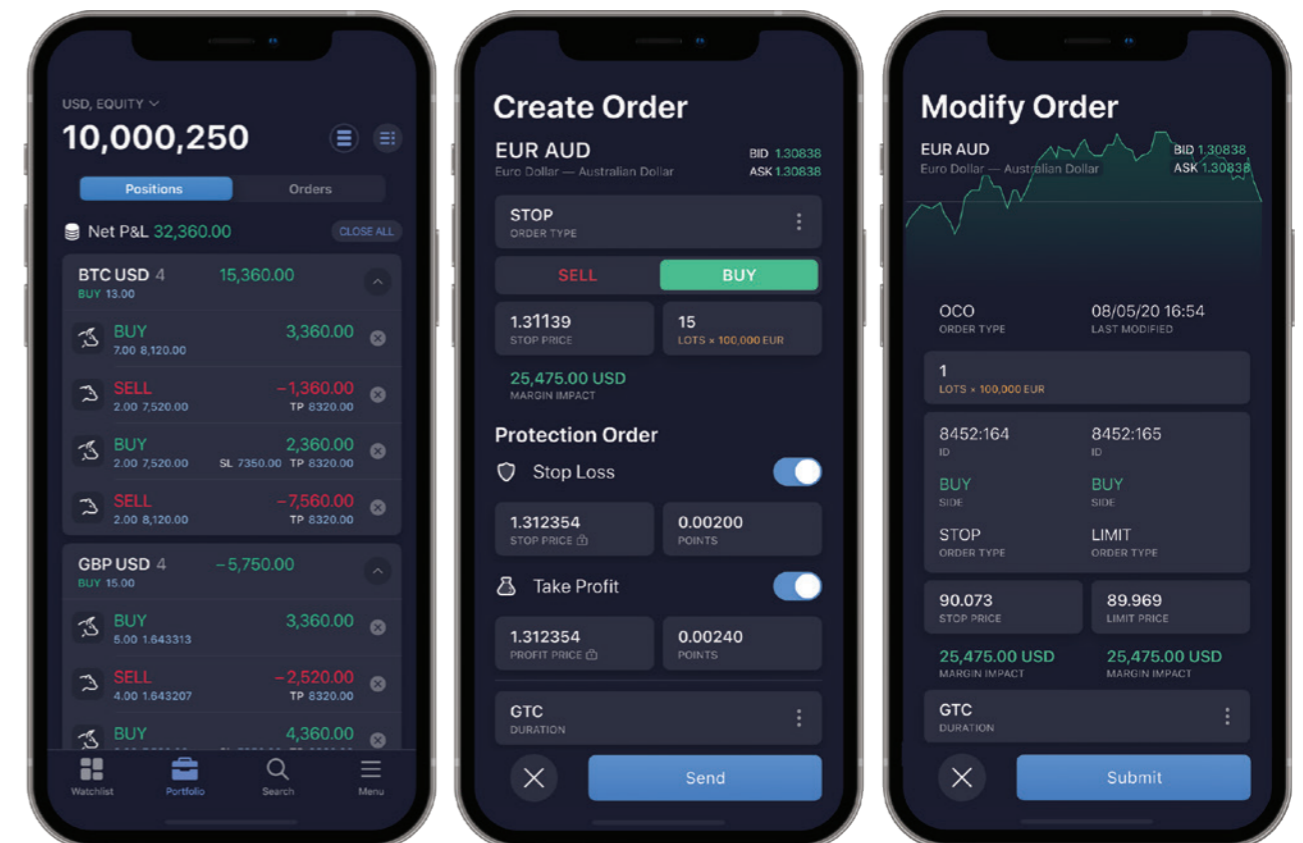
Brokerages have completely different priorities and time horizons to software development companies. Expecting a brokerage to incubate its own permanent, on-call dev team is a big ask at the best of times, let alone when coding talent is so scarce. This is where companies like ours come in. We already employ experts in all of the areas a brokerage would have to find people for. We're already in various stages of building and maintaining the kinds of trading infrastructure that

brokers would ideally like to build for themselves.

**The retail trading platform segment in particular has been somewhat stagnant for years, almost stuck in a rut. Is this a problem that needs solving, or are we unlikely to see any significant disruption to the existing status quo for the foreseeable future?**

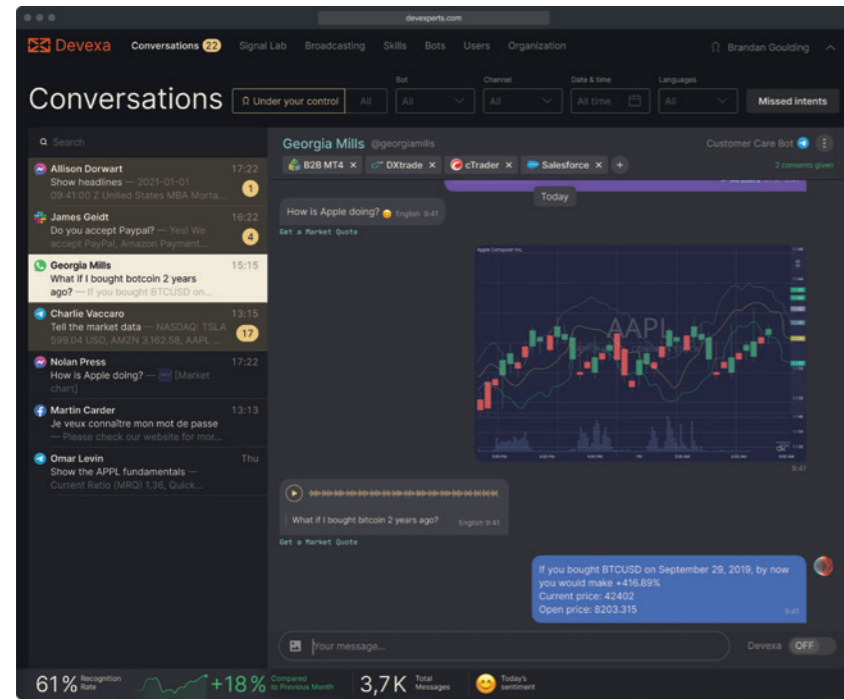
On the one hand we keep hearing how stagnant things are, but from our perspective it's difficult to agree with a statement like that when Devexperts has been so immersed in platform innovation and development for so many years. Not only have we launched an all-new platform for the retail segment, we've also pioneered a SaaS model that's accessible for newcomers to the space and highly scalable for brokerage businesses that start making waves.

I think that what might be being referred to in the question is the status



DXtrade Mobile: View positions, Create order, Modify order

Devexperts - pushing the boundaries of online trading for over 20 Years



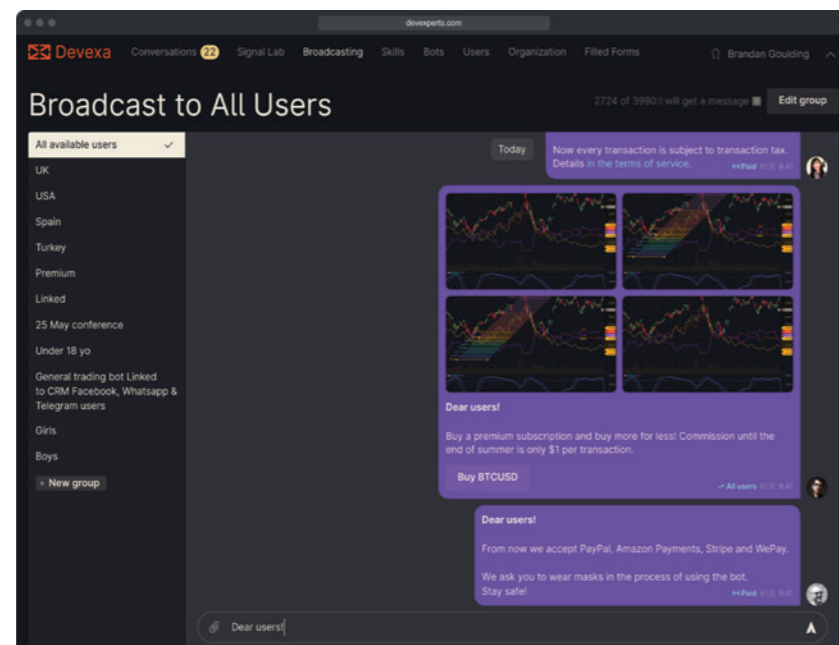
We believe our smart assistant Devexa serves as a powerful customer retention and brokerage differentiation tool

quo regarding trading platforms in the online CFD segment, which is also gradually changing as brokers take those first tentative steps away from the incumbent front-ends, towards rethinking how they want the user experience of their brokerage to look and feel. I think it's only a matter of time before the whole space undergoes a wholesale change, if only because of all the competition from other areas of the online trading landscape such as spot cryptocurrency and derivatives trading venues, zero-commission stock brokerage, wealth management and micro-investing apps. All of these businesses are in some way competing for that Millennial/Zoomer dollar and they're all rethinking the user experience for this new generation.

**Unlike many technology providers, Devexperts has been willing to act as an incubator of new ideas in the online trading space. What advantages has that given you in this highly competitive industry?**

Innovation always involves risk, which is why in every industry you'll notice that the overwhelming majority of

firms prefer to play it safe, content to be guided by the risks taken by others as to the direction worth following. You need to be prepared that 9 of 10 of your innovations will never catch on, but no effort is truly wasted as our team learns more with every project it takes on. At Devexperts, we believe that the non-zero chance that every innovation has of catching on is more than worth the expense of green-lighting projects that may have no clear path to revenue generation at



Devexa chatbot broadcasts

first. Some of our wildest outside-the-box projects ended up turning into viable products that are only becoming more relevant with time. Devexa, our smart assistant for brokerages is just one such innovation.

**Why has data become such an important topic for retail brokers? How is Devexperts meeting their demand for market data and other associated products and analytical services?**

Quality data is becoming a highly desirable resource, there's no two ways about it. And in a world where the physical is increasingly migrating to the digital, this trend is only going to keep accelerating for the foreseeable future. When you factor in the trend towards tokenising everything, smart devices interconnected through IoT technology (internet of things), as well as ongoing experimentation with metaverses, it's clear that the data requirements are on an exponential curve and, as a company, we have always been sensitive to this trend.

Unlike many technology providers, Devexperts does not outsource its market data needs. For the past 15

years, our market data branch dxFeed, has been building a vast market data network, connecting all major world exchanges and sources of historical price information with brokers, banks, fintech companies and other consumers of high quality data. Today dxFeed serves over 6 million end-users globally, delivering real-time and historical financial data across 2 million instruments. Our infrastructure also allows us to offer analytical and data services on the fly from the cloud environment, saving computing and network resources for brokers and other data consumers.

**Increasing numbers of brokers are now looking to gain access to the cryptocurrency markets. What advice would you give them about deploying their trading and technology infrastructures to achieve this?**

To be honest, I was surprised to see how many cryptocurrency exchanges simply reinvented the technology pioneered by FX/CFD brokers many years earlier. I feel this was a huge missed opportunity on the part of online FX brokers, many of which

found themselves behind the curve when it came to this new asset class. My advice to brokers trying to develop their own cryptocurrency strategies in 2021, is to bring crypto into what you already do best, rather than trying to pivot your business towards it due to its recent popularity.

What's particularly interesting at the moment is the explosion in retail-facing crypto derivatives brokers coming to market completely independently from the retail FX/CFD market. For our part, we've been advising FX brokers to lead with their strengths and compete for market share in this precisely segment for years. With Devexperts as a partner, they can leverage our technologies to offer crypto derivatives traders a vastly improved trading experience through DXTrade, as well as some highly innovative possibilities in synthetic assets and custom index creation thanks to the good people at dxFeed.

**What areas of their business operations still present pain-points for many retail brokers?**

All the usual suspects still apply. Differentiation is an issue with so much overlap between the core services of each broker. The platform problem still looms large with so much of the industry unable to move beyond the incumbent platforms. Also, unifying the user experience not just across devices and operating systems, but also across the often fragmented on-ramps of each brokerage is becoming more of a priority in the industry. Users now have one experience through a landing page, a different one through the homepage, yet another one through the trading platform and often a completely different one when it comes to the client area. I'd say that one of the most pressing current pain-points is to unify all of these different funnels and on-ramps into a single UX. Devexperts is bringing its own solution for this problem to market and we think brokers are going to be very happy with it.

**Last year you launched your all-new SaaS platform DXtrade. Please tell us a little about the most important features of DXtrade.**



DXTrade as a multi-asset, 100% ready-to-use platform that comes out-of-the-box, hosted and maintained by Devexperts



**Devexperts - pushing the boundaries of online trading for over 20 Years**

The most important feature is the platform's modularity, which allows us to release a steady stream of updated widgets to enhance it. This can be an ever expanding technical indicator set, new ways of visualising market data and even account management features that encourage traders to perform all relevant actions through the platform itself, which translates to more time spent on the platform.

Recently we've added a client portal as an optional component, so brokers that prefer getting all the software from a single vendor can be also satisfied. The market is perceiving DXtrade as a next generation, multi-asset, 100% ready-to-use platform that comes out-of-the-box, hosted and maintained by Devexperts, and is suitable for all sorts of retail trading venues across the asset spectrum.

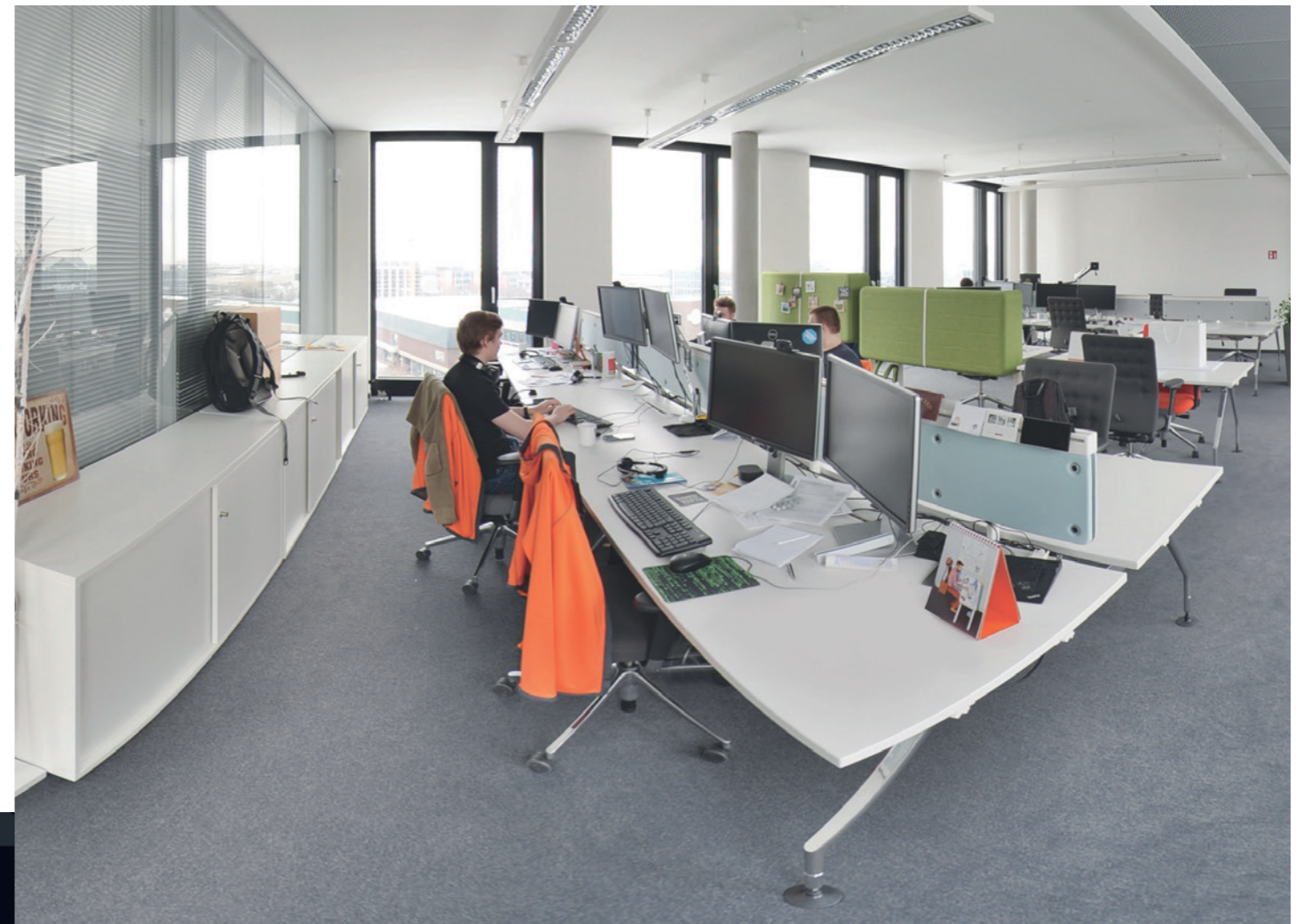
**What new electronic trading products and services has your team recently been working on? For example, solutions that can help brokers to further automate their dealing and risk management processes or customer support and retention operations?**

One of the efficiencies we're able to achieve by providing solutions to so many different types of financial entities, is that as our institutional-grade solutions start to mature, we're able to use key pieces in our more accessible SaaS products. For example, a powerful risk management module with fully automated A/B/C-book execution strategies, tiered markup and tiered margin mechanisms, is now built-into our DXtrade platform. This means that brokers don't require

any additional tools to set up a comprehensive, brokerage-wide risk management strategy as the platform itself can come with it out of the box.

As for customer retention, we believe our chatbot Devexa serves as a powerful customer retention and brokerage differentiation tool, either as a smart assistant inside the platform, or as a broker representative in messengers.

We've also developed a unique platform feature allowing users to track past trading activity in the form of a journal, completing it with tags, text notes and advanced search and filtering capabilities. So, now traders get back to the platform to not only issue new trades but also to analyse their past experience..



In the medium term, Devexperts will continue to help brokers become true multi-asset and multi-market, mixing exchange-traded assets with CFDs, FX, and Cryptocurrencies in one platform offering

The screenshot shows the Gate45 trading platform interface. At the top, it displays 'Exposure' with a net open position of USD 238,100,123.12, unrealized P&L of -USD 2,302,977.37, value at risk (95%) of USD 11,450,981.11, and a cap adequacy ratio of 13.81%. Below this, there are sections for 'Instruments' and 'Currencies' with detailed tables of trading data.

Symbol	Long VWAP	Volume	Short VWAP	Volume	Net Limit	Volume	Limit	Unr P&L
EURUSD	1.08922	13.21 lots · EUR 1.3M	1.09111	18.15 lots · EUR 1.8M	5.06 lots · EUR 392K	15%	-USD 2098.60	
EURAUD	1.62189	0.15 lots · EUR 150K	2%	0.15 lots · EUR 150K			-USD 468.40	
EURCHF			1.09559	0.15 lots · EUR 15K	0.15 lots · EUR 15K	3%	USD 573.64	
EURJPY	120.1615	9.99 lots · EUR 999K	49%	9.99 lots · EUR 999K			USD 7.77	
GBPUSD	1.23407	0.50 lots · GBP 50K	1.24257	1.50 lots · GBP 150M	1.00 lots · GBP 100M	22%	-USD 3046.50	
EURNZD	0.97306	0.03 lots · EUR 3K	0.97801	2.01 lots · EUR 201M	1.98 lots · EUR 200M	4%	USD 330.99	
USDCHF	1.79133	132.00 lots · USD 13.2B	89%	132.00 lots · USD 13.2B			USD 1422.16	
USDJPY	107.747	0.05 lots · USD 5K	107.188	0.02 lots · USD 2K	0%	0.03 lots · USD 3K	USD 0.13	
XAUUSD			1465.86	1.00 lots · XAU 100K	1.00 lots · XAU 100K	1%	USD 48.00	

Symbol	Long Volume	Short Volume	Net Limit	Volume	Limit
EUR	18.15 lots · EUR 1.8M	13.21 lots · EUR 1.3M	5.06 lots · EUR 392K	15%	
GBP	0.15 lots · EUR 150K		2%	0.15 lots · EUR 150K	
USD		0.15 lots · EUR 15K		0.15 lots · EUR 15K	3%
XAU	9.99 lots · EUR 999K		49%	9.99 lots · EUR 999K	
JPY	0.50 lots · GBP 50K	1.50 lots · GBP 150M		1.00 lots · GBP 150M	22%
NZD	0.03 lots · EUR 3K	2.01 lots · EUR 201M		1.98 lots · EUR 200M	4%
CHF	2.00 lots · USD 13.2B		89%	2.00 lots · 132K USD	

Devexperts powerful Gate45 helps brokers control multiple trading platforms in a single interface

**A new generation of retail traders are starting to make their presence felt. In what ways are they going to influence the technology powering the online trading business?**

As I've already mentioned, one of the main points of consensus the industry is reaching involves making the entire process of registering, getting verified, funding, education, news, account management and trading into a single, unified user experience. One of the reasons for this consensus is an understanding that this new generation of retail traders have far higher standards than the previous one when it comes to user experience and UI design.

Fragmentation was a necessary evil in the earliest days of this industry. If it's to move with the times it has to unify

all the key areas a user interacts with into one simple-to-use interface, and since traders spend most of their time charting, this unifying interface should logically be the trading platform itself.

**Looking ahead, how do you see Devexperts positioning itself to help the retail industry capitalise on the business growth opportunities that next generation technology will bring all around the world?**

In the medium term, Devexperts will be helping brokers become true multi-asset and multi-market, mixing exchange-traded assets with CFDs, FX, and Cryptocurrencies in one platform offering. In the long term, I hope one of our innovative products will become an industry standard, improving the way people trade financial markets,

and thus making their lives better. You can expect to see both Devexperts and dxFeed breaking the fourth wall in our industry and going directly to the end trader with certain solutions and services. This is because we feel we're now equipped to start building recognition amongst traders themselves as innovators in this space and we feel that eventually it will be the traders themselves who are asking brokers to offer our platforms. As you've come to the end of my interview, I'd like to thank you for your interest and offer all brokers reading E-Forex a free 3-month subscription to a real-time OTC data feed of their choosing from dxFeed. Message us to claim it at <https://dxfeed.com/contact-us/>, quoting the title of this article in the comment field. The offer is valid until February 2022..

# FX on Exchanges – a story of regional growth, global ambitions and increased trading volumes



CME Group is the world's largest and most diverse derivatives marketplace and offers a wide range of products and services for currency traders which many of our readers will be familiar with. However, other leading exchanges around the world are continuing to ramp up their own FX trading propositions and so Nicholas Pratt sets out to discover more about these and how they are gearing up for further development of their electronic trading platforms, market data and clearing services.



Nicholas Pratt

Back in 2007, before the global financial crisis, the idea of encouraging more exchange trading for FX was one that split the market. At the Sibos conference, the annual event run by the interbank cooperative Swift, a panel discussion on the subject underlined this split. It featured Mark Robson, the chief executive of FXMarketSpace, a centrally cleared, global FX platform for the OTC market launched in 2006 by Reuters and the Chicago Mercantile Exchange (CME) in an effort to bring an exchange-based marketplace to the FX industry. Robson's argument back then was that FX participants wanted more anonymous trading to stop rival traders backward-engineering their algorithms. It was an argument that caught little traction with traditional sell-side FX participants who stated that market impact was not really an issue in the primarily bilateral world of FX trading and was an example of traders in other asset classes, such as equities, trying to apply the same models in the FX world.

As it happened, FXMarketSpace folded in 2008, however, a year after that, once the global financial crisis had hit, regulatory attention turned to central clearing and a move away from over-the-counter bilateral trading, including the FX market. In the subsequent decade and beyond, FX trading on exchanges has grown markedly, across the globe. The major exchanges in Europe, the US, Asia, Latin America and the Middle East all continue to develop their FX product range, including FX derivatives, as well as their electronic trading platforms, market data services, connectivity offerings and central clearing services. Furthermore, two rapidly developing markets – Renminbi futures and crypto futures – offer exchanges more opportunity to increased trading activity.

## WESTERN EUROPE - INCREASED FX TRADING DEMAND

The German derivatives exchange, Eurex, added FX derivatives to its integrated RFQ platform Eurex EnLight in May this year. The platform already catered for equity index and fixed income options and futures but now has been extended to cover its growing FX market.

According to Eurex the move was driven by the increased demand for FX trading products. "Since the FX market continues to grow, we want

to make sure that clients are able to source the most competitive liquidity and benefit from the full suite of execution models," said Andre Eue, head of market development at Eurex, and Joshua Hurley, FX sales and business development at Eurex, about the enhancements.

"Request for Quotes (RFQ) is a common execution protocol in wider FX markets, and clients are also trading in large sizes so it makes complete sense to also offer this for FX and provide execution options that complement the orderbook," they added.

The extension of the EnLight platform was then followed in July by a similar move from Eurex Clearing, the central counterparty which went live with clearing service for deliverable cross currency swaps and OTC FX.



Erik Muller

"Central clearing and guaranteed settlement for cross currency swaps in CLSClearedFX is a world first and we are pleased to have launched this together with CLS to deliver capital, liquidity and settlement benefits."

## FX on Exchanges – a story of regional growth, global ambitions and increased trading volumes

The initiative involved a partnership with CLS, the settlement services provider for the FX market. Transactions are cleared and settled on a net basis across cross-currency swaps and OTC FX and guarantees settlement in CLS Cleared FX. German bank Commerzbank, Morgan Stanley and JP Morgan were the clearing members recruited to enable the testing of the service.

According to Eurex, the launch is a world first and offers both a more resilient market as well as a reduction in capital requirements under SA-CCR rules and a provision of liquidity and funding benefits. "Central clearing and guaranteed settlement for cross currency swaps in CLS ClearedFX is a world first," said Eurex Clearing CEO Erik Muller. "We are pleased to have launched this together with CLS to deliver capital, liquidity and settlement benefits — providing further resilience to the market," he added.

The initiative also supports Eurex and Deutsche Boerse's ambition to promote a market-wide move from OTC trading to central clearing. Nowhere is this move more evident than in the FX market.

### EASTERN EUROPE - UNPRECEDENTED INFLOW

From 2020, there has been an unprecedented inflow of new clients to Moscow Exchange (MOEX) FX markets due to two factors: the lowest ruble interest rates in modern history and a global shift to remote, electronic trading driven by the pandemic. In response, MOEX has continued its focus on liquidity and quality of ruble order books while maintaining focus on developing FX spot trading services in the exchange's multi-product range of FX spot, swaps, and futures instruments available. This year, the exchange extended its trading hours and began trading

FX, derivatives and precious metals three hours earlier from 7.00am to 10.00am Moscow time. The decision was driven by growing demand for ruble instruments among investors from Southeast Asia, primarily China, India, Singapore, Hong Kong and from Russian investors based in the Far Eastern regions of the country. The expanded hours have proven successful - the share of morning hours in the total day MOEX spot volume rose from 6% in March to more than 10% in October 2021. Eventually, MOEX plans to offer 24 hours matching on its FX market. "Our focus on quality of ruble order books and best liquidity has paid dividends," says Igor Marich, Managing director on sales and business development of MOEX. "In November of 2021, the number of MOEX-registered retail clients surpassed 15 million, which is larger than the entire population of Belgium or Switzerland, largely because of individual investors who obtained direct access to MOEX via simple-to-use but advanced digital channels of local brokers."

To bring more transparency and market integrity to this rapidly growing RUB FX market, MOEX is launching the Opening Auction in its main FX order books for USDRUB in December 2021. This will enable participants to find true market price and avoid abnormal price fluctuations in the OTC market during a ten minute special pre-market auction from 6:50 to 7:00 a.m. with establishment of true market rate in the last 30 seconds. "Our strategy accounts for how unique MOEX is, as a marketplace

different from not only OTC FX venues and traditional derivatives exchanges, but also from settlement and clearing houses such as CLS or LCH," said Marich, explaining that MOEX provides not only price discovery and execution services but also subsequent clearing and net settlement service reducing counterparty and market risks for its numerous clients. MOEX group company National Clearing Centre – the NCC acting as CCP – is a key facilitator of post-trade clearing and credit risk management of on exchange FX trades, acting as a significant credit intermediary similar to large FX Prime brokers in global markets.

"The strategic decisions we made and have implemented during 2021 have been successful, and MOEX has been recognized in Euromoney's authoritative annual survey of foreign exchange market participants," said Marich. MOEX achieved a second place ranking in customer satisfaction among multi-dealer platforms, fourth place in the overall Best ECN ranking – up three spots from last year – and sixth place by overall volume among the multi-dealer platforms.



Igor Marich

"Our strategy accounts for how unique MOEX is, as a marketplace different from not only OTC FX venues and traditional derivatives exchanges, but also from settlement and clearing houses such as CLS or LCH,"

# MOEX FX



## LARGEST MULTILATERAL TRADING PLATFORM FOR RUB FX INSTRUMENTS

- Electronic trading marketplace for FX spot, swaps, deliverable futures, RUB FX fixings
- Trading with centralized clearing through CCP
- Multiple price discovery and execution models
  - Traditional CLOB for medium and smaller amounts
  - RFS and Speedbump order books for larger amounts
- Traded currencies: RUB, USD, EUR, CNY, GBP, JPY, HKD, CHF, KZT, BYN, TRY
- USD/RUB FX Fixing (12:30 MSK) is globally recognized benchmark and settlement rate for RUB FX cash-settled derivatives
- Access for international market participants via:
  - Sponsored Market Access
  - International Clearing Membership
- Compliance with FX Global Code
- Trading hours: 07:00 to 23:50 MSK
- Euromoney FX Survey 2021: 2nd place by customer satisfaction among multi-dealer platforms, 4th place in the overall Best ECN ranking

## TRADING VOLUMES AND MARKET SHARE IN 2021

- FX ADV - \$17 bln
- MOEX share in FX domestic market - 44%
- Over 23 000 international clients from 140 countries
- Share of international participants in FX spot - 37%



## FX on Exchanges – a story of regional growth, global ambitions and increased trading volumes

In addition to boosting liquidity and order book quality, and in response to the dramatic influx of investors both institutional and retail, MOEX is continuing to invest in its technology offering. The exchange has acquired a stake in the OTC FX platform NTPro, via Swiss-based owner BierbaumPro, which is now 95%.

“NTPro is a popular and fast-growing matching and aggregation FX venue for spot off-exchange OTC transactions, not only in FX but also in metals and other assets. By acquiring a stake in the technology, MOEX now provides for a synergetic product offering the market participants that combines the price discovery and execution technologies of NTPro with the first-class MOEX settlement and collateral management system,” Marich says.

MOEX recently launched the new service of clearing FX trades done by local banks in the OTC space via NCC infrastructure. Now, market participants can enter their OTC spot and swap trades executed on NTPro for MOEX clearing and in December, the functionality will further develop to enable the participants to perform pre-trade checks of their collateral placed with the NCC.

According to MOEX, based on their access to NTPro technologies and given that the exchange’s overseas arm is well-known brokerage house Bierbaum, located in Switzerland, the exchange plans to launch new products and asset classes. These will include NDFs, crypto and CFDs in various asset classes, from FX to equities, fixed income, metals, indices and commodities.

### ASIA - RMB FUTURES AND HYBRID TRADING

One of the clearest trends in global FX trading currently is the high demand for offshore RMB futures. This is because it is the only instrument

“Traders see our venue as a significant source of RMB flow and liquidity begets liquidity.”



available for hedging RMB exposure. Despite the pandemic, China is still the biggest trading partner in the world and in addition to the use of Stock Connect and Bond Connect, there has also been an increase in global commodities trading and a lot of US dollar exposure that needs to be hedged.

There are also some global macro trends driving demand for futures – ongoing US China trade tensions, energy shortages and the impact on supply chains, and the fallout from the collapse of Chinese property developer Evergrande.

Singapore Exchange (SGX) as the biggest venue globally for offshore CNH has been a major beneficiary of this trend. “We have an 80% market share with \$4bn a day in futures and \$10bn of open interest,” says KC Lam, head of rates and FX at SGX. “Traders see our venue as a significant source of RMB flow and liquidity begets liquidity.”

The exchange is also attracting a more diverse set of participants, says KC. “We see a 13% year-on-year increase in volume for the six months ending September 2021. The largest percentage increase came from the

buyside and the banks segment of our market. The buyside segment includes trading firms, asset managers, commodity traders as well as banks. The liquidity profile of our FX venue is attractive for hedgers and buyside clients. Moreover, with a diverse client base, many sell side banks are also keen to participate as they see this as an efficient venue for the distribution of their liquidity.”

Another significant driver of exchange trading for FX has been regulation, says KC. More specifically, the uncleared margin rule which will have a seismic impact on those trading firms included under the rules. “The rule will add capital charges and more checks on derivative trading and ultimately make OTC trading more expensive,” says KC. “Firms caught under the rules could mitigate these costs by trading on centrally cleared venues, such as FX futures on an exchange.”

SGX anticipated the trend for traders to take advantage of a more efficient futures format while keeping some positions as OTC equivalent, thus it has introduced hybrid products and services. In 2018, the exchange introduced FlexC FX Futures, a new version of its FX futures contracts that has the same security and capital efficiency advantages as standard futures but can be traded bilaterally with tailored expiration dates.

SGX has since launched mini CNH futures contracts to appeal to smaller trading firms. It has also acquired two OTC FX trading platforms – BidFX and MaxxTrader in the last two years. All of these moves were designed to expand its reach into the OTC FX market and in anticipation of the increase in demand

## SGX FX Asia’s largest and most liquid FX derivatives marketplace

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**FX on Exchanges – a story of regional growth, global ambitions and increased trading volumes**

from participants actively trading both OTC and listed FX.

“By acquiring the two OTC FX platforms and have the two OTC FX platforms connected and working seamlessly with the exchange, SGX can offer end participants access to a more holistic and efficient FX ecosystem; with seamless access and choices of FX instruments, flexibility in executions of trades, ease of workflow and efficient price discovery. This rich ecosystem can allow for greater product innovation that could offer end users better format and more efficient use of their capital, all in one venue,” says KC.

**THE MIDDLE EAST – GREATER INTERNATIONAL ACCESS**

The Dubai Gold and Commodities Exchange (DGCX) is the Middle East’s leading derivatives exchange, although the subsequent launch of derivatives exchanges in Abu Dhabi, Qatar, Bahrain, Kuwait and Egypt have made the region more competitive. The DGCX has also been prominent in the growth of FX activity in the region and also the strong presence of exchange-based trading.

In July 2020, the DGCX introduced new rolling FX future contracts which involve three currency pairs – euro, pound sterling and Australian dollar against the US dollar (USD) in a bid to attract institutional investors to its platform.

“Not only do the contracts offer investors greater access to international currency markets with clear, understandable regulations, but the perpetual open nature of them will also provide them with unique opportunities to more efficiently hedge their risk exposure,” said Les Male, chief executive at DGCX at the time of the launch, speaking to e-Forex.

“The contracts are suitable for all traders, but will offer especially great

value to institutional investors, providing protection against swings in foreign exchange rates, particularly during this period of heightened volatility,” added Male. The DGCX has also taken steps to extend its links to international markets and widen its liquidity pool. This includes a partnership with market data firm McKay Brothers to create a low latency link to US and EU trading hubs, and the selection of the exchange as a third country venue by the European Securities and Markets Authority. This was described as “a significant milestone for both the DGCX and the UAE” by Male. More recently, the DGCX has sought to expand its presence in emerging markets. For example, in September, it signed a MoU with Victoria Falls Stock Exchange (VFEX) – a subsidiary of the Zimbabwe Stock Exchange (ZSE) – to provide technical support, knowledge, and skills, with the aim of establishing an international commodities exchange in Zimbabwe.

This is the second MoU signed in the African market over recent months following an agreement with the Financial Markets Regulatory Authority (FMA) in Sudan. “The DGCX continues to focus on driving growth by enhancing the strength of our offerings to market participants, as well as growing, innovating, and scaling our services,” said Male. “As a globally regulated exchange, we are proud to lend our expertise in other markets and continue to look at ways to expand our range of services, as well as offer market participants with effective ways to hedge risk.”

**“Our new rolling FX future contracts offer investors greater access to international currency markets with clear, understandable regulations, and will also provide them with unique opportunities to more efficiently hedge their risk exposure.”**

The interest in futures trading has continued in 2021. In September the DGCX once again registered a high monthly average open interest amounting to 154, 629 contracts. The exchange’s currency portfolio also saw a spike in activity during September. Its G6 currencies portfolio traded a combined total of 1,434 lots valued at \$80 million. Additionally, the newly launched Pakistani Rupee (PKR) Futures Contract continued to grow in demand, registering a combined value of \$108 million.

**FULL CIRCLE**

Going back to the 2007 panel discussion on exchange trading for FX, it is clear how much the financial markets have changed in the subsequent 14 years and how OTC trading practices have been increasingly led towards the transparent spotlight of the exchange environment. This is clearly seen in the evolution of FX trading and various FX derivatives.

While the demand for FX futures is the current focus for most exchanges, the future focus will surely turn to the rapidly developing world of crypto assets.



Les Male



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**CRYPTO – THE NEXT FRONTIER**

The next frontier for exchange trading could well be focused on cryptocurrencies and, more specifically bitcoin futures. A watershed moment in the development of this asset class came in October when the US regulator, the Securities and Exchange Commission (SEC), approved the first bitcoin ETF.

The fund, the ProShares Bitcoin Strategy ETF, is a bitcoin futures-based product. It made a dramatic market entrance, reaching \$1.1 billion in assets under management in its first two days of trading and also pushed the price of bitcoin to an all-time high of \$67,000. Other bitcoin futures contracts and ETFs are set to follow.

There is also a significant role to be played by the major exchanges, such as the CME. The SEC’s chairman Gary Gensler has previously stated his preference for bitcoin future ETFs, as opposed to physically-backed strategies or spot-based bitcoin ETF contracts. In August, Gensler stated that he was looking forward to reviewing bitcoin ETF filings, “particularly if those are limited to CME-traded bitcoin futures”. The main reason for this preference is the fact that exchanges such as the CME are fully regulated, in this case by the US Commodity and Futures Trading Commission.

This is in contrast to the underlying crypto market where there are still grave concerns among supervisors and institutional investors about the presence of money laundering and other illegal activity. There is also a clear preference among institutional investors for crypto ETFs as opposed to investing directly in the likes of bitcoin, as it offers the protection and familiarity of an exchange-based environment. The crypto ETF market is much more buoyant in Europe and includes crypto-native ETF issuers such as 21Shares and ETC Group as well as established players like WisdomTree, Invesco, VanEck and State Street Global Advisors.

Meanwhile at the end of October, the Australian Securities and Investments

Commission gave the green light for spot ETFs in bitcoin and ethereum, the world’s two largest cryptocurrencies. One exception is the UK where the Financial Conduct Authority (FCA) still has a ban on cryptocurrency derivatives, meaning that retail investors cannot invest in ETFs that hold crypto. The regulator has cited four reasons for its stance - a lack of basis for valuation of cryptocurrencies; prevalence of market abuse and financial crime; volatility and a lack of clear investment need.

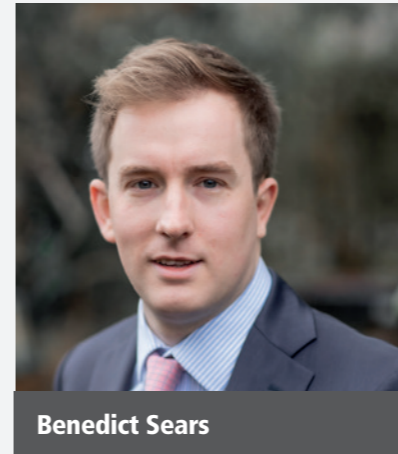
The FCA has also taken issue with some of the new breed of crypto exchanges, notably Binance. In June, it banned Binance’s UK affiliate from offering regulated products in the country, citing the crypto firm’s opaque company structure and a lack of response from its UK business to the FCA’s enquiries. Clearly regulation will be a key factor in the development of exchange-based cryptocurrencies trading and products like bitcoin futures and spot ETFs. It also looks like an opportunity for established exchanges to add crypto products to their range of FX products as they seek to capitalise on the migration of bilateral OTC trading to centrally cleared exchanges.



A watershed moment in the development of this asset class came in October when the SEC approved the first bitcoin ETF

# How Equiti Capital is adapting its Institutional FX Desk to meet the changing needs of global markets

e-Forex spoke with Benedict Sears, Head of Equiti Capital’s Institutional FX Desk to find out more about how the firm has been strengthening its offering.



**Benedict Sears**

## What factors have influenced how Equiti Capital is re-positioning its FX Desk?

An overview of the markets in 2021 and the outlook for 2022, has shaped Equiti Capital’s new FX institutional offering. Activity in the FX markets has been relatively subdued for some months now. Economic policies globally have been generally static, a combination of ongoing loose fiscal policy and monetary accommodation which have acted to suck risk out of the market and compress volatility. But things may be starting to change as concerns over rising inflation are requiring central banks to rethink their policy stance while pressure is similarly mounting on governments to begin the difficult task of fiscal consolidation.

The risk is that these policy adjustments have a negative impact on market sentiment, damaging risk appetite and weighing on asset classes such as equities. Rising interest rates are also likely to drive bond prices down and monetary authorities globally will want

to avoid any knee-jerk market reactions that see yields overshoot higher. For FX markets such developments could provide the reinvigoration needed, generating renewed trading activity, and kicking off demand for both short and long volatility positions, trades that are likely to be more accentuated in emerging market currencies.

## How has Equiti Capital’s FX Desk worked to differentiate itself given the number of Institutional FX brokers in what seems like an overcrowded market?

Over the past year Equiti Capital has been laying the foundations for our institutional client offering to expand beyond that of e-FX only, essentially expanding to cover clients in a similar fashion to what they would expect from a bank. This means we now cover all aspects of FX, from spot through to options, both in an electronic and voice capacity, while also producing our own high quality macroeconomic analysis.

Current subdued levels of volatility, bar a few events, has meant clients are less willing than ever to pay spreads. We have been increasingly focused on matching client interests with the resting interest we hold in our Central Limit Order Book (CLOB), essentially allowing clients with opposing interests to match at mid-market. To expand on this, Equiti Capital has been exploring more opportunities to electronically warehouse risk to capture more spread than would typically be done in an agency model, offering a more unique price to clients

who are able to trade on this inventory. 2021 has very much been the year when the foundations for these developments have been established, including ensuring our Prime Brokers are happy for us to expand the range of products offered and building a back-office operation that can facilitate complex option products. It was testament to this work that April saw our first vanilla option traded, followed soon after by our first exotic option, a reverse European KO in USDCNH.

## How is Equiti Capital looking to further expand its product offering and adapt to market changes in 2022?

Looking ahead to 2022 we will continue to look for opportunities to expand our product offering, including electronic FX forwards and NDFs. We are already able to trade both these products as part of our voice offering; the issue concerns the technology for aggregation and distribution as well as hurdles concerning automated regulatory reporting. Equiti Capital is also looking to add more complex FX products in other jurisdictions. When we enter new jurisdictions across the world, we work alongside local market regulators to meet local regulatory and reporting requirements, and to bring best global practices to new markets. As an FX Desk Equiti Capital is now well-positioned to adapt to market changes, and proactively consider new opportunities, as well as client demands. 2022 will certainly be an exciting year for Equiti Capital’s FX Desk.

# Institutional Crypto adoption: **Three factors to watch**

By Alex Laughton-Scott, Associate Director & James Butterfill, Investment Strategist at CoinShares

DIGITAL CURRENCIES



Alex Laughton-Scott

On the 5th of October bitcoin broke back through the key mark of \$50,000. Many have been speculating whether the recent technical analysis suggests it is setting up to push past the previous all-time-high of US\$64,000.

What we consider to be more important is that there are a number of material factors in the digital asset industry that have not co-existed till now. Together these lead us to the question of whether we may be on the cusp of institutional adoption. We analyse and explain three of these factors below:

## 1. Regulation

Following the latest ban by China on



James Butterfill

24th of September, the world looked to the United States for clarity from the regulators and lawmakers over their stance towards cryptocurrencies. Treasury head Jerome Powell has been notoriously weary of digital assets and the new SEC chair Gary Gensler initially appeared to be of a similar mindset, adopting a cautious and non-committal approach to how the SEC plans to treat them.

In a boost for the crypto industry and associated institutional interest, both Jerome Powell and Gary Gensler stated they had no intention to ban cryptocurrencies on the 30th of September and 5th of October respectively. Couple that with the support that Gensler reiterated for a

bitcoin futures based ETF on the 29th of September, along with his recent comments that Bitcoin could be seen as a “store of value” and a picture begins to emerge that the world’s most influential regulator is starting to warm to crypto (within reason).

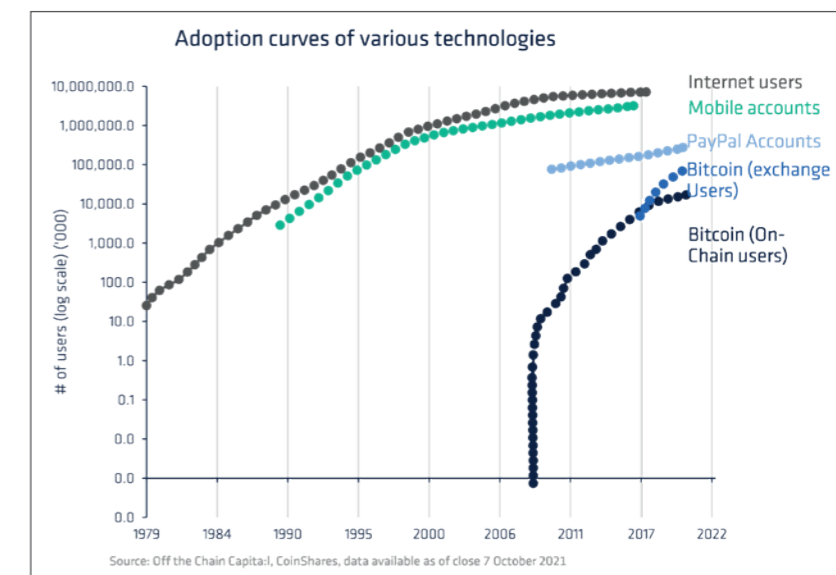
The SEC has wrestled with allowing Bitcoin ETFs backed by physical bitcoin, given that so much of the underlying trading occurs on unregulated exchanges. The SEC remains cautious due to their perception that the physical Bitcoin market can be manipulated. Futures-backed ETFs, the alternative to ones based on spot, are often inferior. If the futures market is in contango, then rolling from one future to the next can often be costly. Recent data highlights this issue, futures-based Bitcoin indices have underperformed the Bitcoin price by 50% over the last year. Regardless, the most recently launched Bitcoin ETFs in the US are futures based, which addresses the concerns about market surveillance and manipulation and are the primary reason why the SEC allowed their listing. These newly listed ETFs have been very popular too, with inflows of US\$1.3bn in the first week alone.

## 2. Adoption

Both supporters and detractors have recently been likening bitcoin to the internet in 1997. Bitcoin has been growing at an annual rate of 113%, vs the internet’s growth at that time of 63%. Should bitcoin’s adoption slow to that of the internet’s, it would still lead to 1 billion users by 2024 and 4 billion users by 2030. With institutions such as Visa, Mastercard, Paypal, BNY Mellon, Morgan Stanley, Goldman Sachs and JP Morgan to name but a few all reversing their stance against bitcoin, that isn’t looking likely.

On the 8th of September 2021, El Salvador became the first country to adopt bitcoin as legal tender, but as newsflow since then suggests, they will certainly not be the last. It is estimated that over 50% of the population are now using the government’s Chivo cryptocurrency wallet, compared with only around 30% having a bank account.

According to a recent report by the World Bank, approximately 1.7 billion people remain without access to a bank account, however 1.1 billion of those own a mobile phone. There has long existed a narrative that cryptocurrencies can provide a



solution to banking the unbanked. The World Bank also reported in 2018 that the overall global remittance market had grown to US\$689 billion, including US\$528 billion to developing countries. Alongside the commission-free Chivo ATMs in El Salvador, 50 commission-free Chivo ATMs have now been installed throughout the USA, where some 2.3 million people from El Salvador descent live and work. It is estimated that El Salvadoreans currently spend approximately \$400 million in remittance fees per year. With the new ATMs allowing individuals to send fast, commission-free payments across borders, we may be witnessing the first case study of blockchain

technology improving on the outdated and often expensive financial system.

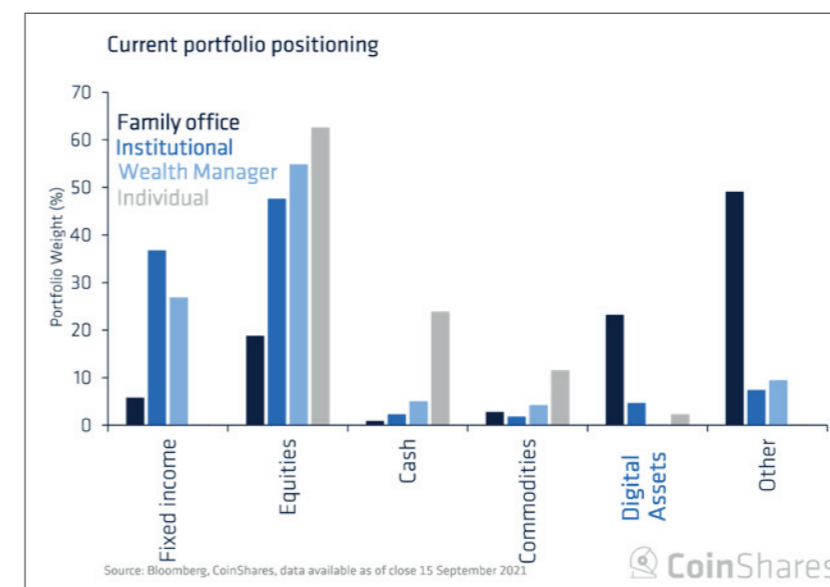
Ukraine also announced their plans to legalise bitcoin and cryptocurrencies. With Cuba, Brazil and Paraguay also all throwing their hats into the ring, how many more dominos fall will be key to watch in Q4 and beyond.

From an institutional perspective, our most recent survey representing US\$400bn of assets under management (AuM), highlights growing institutional participation. Average portfolio weightings in digital assets now represent 1.1% of AuM, although this varies considerably across different institutional investor types.

Of the survey respondents who said they had not invested, regulation (21%) was cited as the main reason for not investing. Closely linked to this were corporate restrictions at 19%. Volatility remains a big concern amongst investors. Encouragingly, very few of the respondents see digital assets as lacking fundamentals.

## 3. Macro Environment

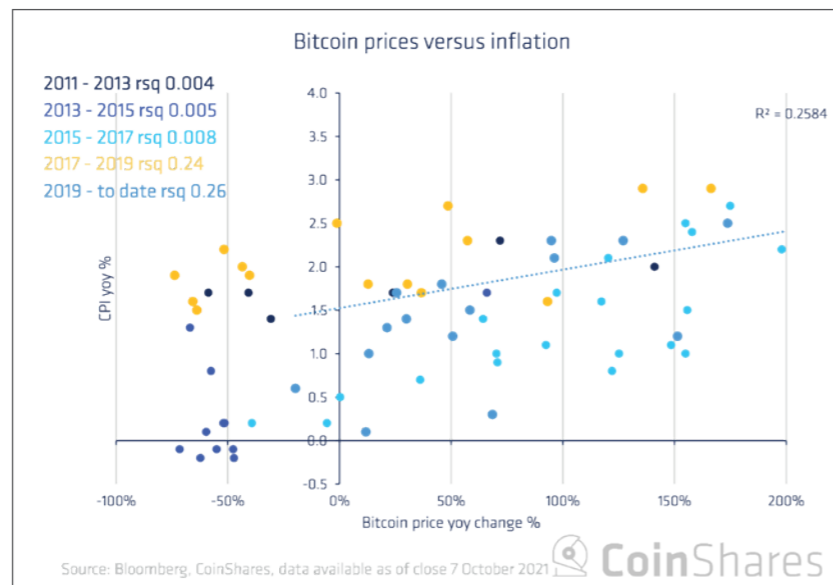
Signs of a potential inflationary problem are beginning to reveal themselves, most notably the tightening employment conditions



**Institutional Crypto adoption: Three factors to watch**

(and consequent rise in wages) coupled with rising producer and commodity prices across the globe. However, investors remain divided, with the outlook for inflation falling into two schools of thought: those that believe the inflation effects are more transitory in nature, and those that see inflation rising to a point where it threatens economic stability. Conceptually, it makes sense that bitcoin would be a hedge against inflation. It is what an economist would call a “real asset”—an asset of limited and predictable supply that is often priced in US dollars. Therefore, if the supply of US dollars is rising, or that of any other fiat currency, then it is likely that bitcoin will appreciate against those currencies, even if its purchasing power were to remain stagnant.

Data suggests that bitcoin is beginning to fulfil this inflation hedge role. Observing its price changes relative to changes in inflation over two-year periods since it was created in 2009, highlights that the relationship is improving, with a current R2 of 0.26 (since 2019). Incidentally, the relationship between bitcoin and



inflation is currently better than between inflation and gold.

With energy prices rising, surging retirements from the baby boomer generation and increasing risks of further wage rises, higher inflation remains a real risk. But we remain unsure as to exactly what will happen to inflation over the coming 5 years, consequently we see adding bitcoin and other real assets as a prudent measure to protect portfolios from the tail-risk of out-of-control inflation.

**BITCOIN PRICE SCENARIOS**

We have written extensively about the valuation of Bitcoin, but it is worth revisiting our total addressable market approach. Investment fund flows imply that Bitcoin has begun to cannibalise gold’s market share, at present Bitcoin represents 9.1% of gold’s market share.

We have recently seen SEC chair Gary Gensler acknowledge that Bitcoin is now “a store of value that people wish to invest in, as some would invest in gold”, this further establishes its identity as a real asset.

As inflation threats in the near-term are likely to further escalate, it’s not outlandish to see the Bitcoin price achieve US\$100k, which would represent only 17% of gold’s market value.

Coming towards year end it is clear there are a range of potentially price-supportive events such as increasing regulatory clarity, rising inflationary risks, increasing adoption and improving investor appetite - these factors are beginning to tick all the boxes for greater institutional investor participation in the asset class.



The SEC has wrestled with allowing Bitcoin ETFs backed by physical bitcoin, given that so much of the underlying trading occurs on unregulated exchanges



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# Inspired innovation

## How we built an institutional crypto trading platform for professional investors

Cryptocurrency has grown from the first bitcoin to a \$2.5 trillion+ asset class in just over a decade, according to CoinMarketCap. That may sound like an industrial-strength sector, but surprisingly few industrial-strength solutions exist to attract institutional traders into crypto. Fortunately, that is changing. Apify is a global digital asset trading network that is building one global market for trading digital assets, including sophisticated solutions that meet institutional crypto traders' extremely high standards. Professional traders are poised to play a vital role in the growth of crypto. First, however, they need tools matching their expectations for speed and ease of use. Apify has set out to deliver these and e-Forex asked their Execution Services team to tell us how they went about it.

Apify is a global execution platform that unlocks access to twenty-five, global exchanges on six continents through the convenience of a single account and set of APIs. It enables trading of multiple asset pairs, with 20% trading fee rebates, and instant reallocation between sub-accounts. All that's needed is one deposit and onboarding, and traders can reallocate assets and start trading. Using Apify is easy. However, bringing it to life

proved to be a complex journey for our team.

### SEEING A NEED

The road to creating Apify's platform began when Apify performed a thorough review of the institutional crypto trading platform landscape. The lack of global execution brokers and execution platforms that would meet and exceed the needs of professional traders quickly jumped out at us.

Although there was talk from many other companies about building an industrial-grade execution platform, and still others that were calling their products execution platforms, nothing was the sort of solution that institutional crypto traders would use.

We saw in our survey that there was no execution platform with the speed and convenience needed to attract professional traders. These attributes would be necessary to bring them onboard, as well as some new innovations that could only happen in the crypto world.

With our crypto trading background, we realized that we had a tantalizing opportunity to bring something entirely new to the sector. As we observed the price discontinuities between various exchanges across the world, we quickly saw that there was no true global market for Bitcoin and that there is no "one global price." We also found that crypto liquidity was a problem. We could move the

Bitcoin price with much smaller orders than it would take to have the same impact in traditional equity markets.

If Apify could create a global execution platform for the crypto world, we could help build up the industry by finally making it ready for institutional traders. We knew we had found a solid starting block. We also knew that building it would be easier said than done. "Industrial-grade" is more than just a label. It means a bug-free platform with the scalability that is familiar to institutional traders. These characteristics stand in contrast to what was available when we began work on Apify Connect in the Spring of 2019. At that time, other execution tools that were already online would break on a near-daily basis. While retail investors play an essential role in crypto trading, they are generally more forgiving of faults with their trading tools.

However, the stakes are much higher for institutional crypto trading: trade size is generally more than \$10K per trade, and the total capital deployed ranges from \$100,000 to \$100 million and more. They would also be trading 24x7 and probably do more than 1,000 trades daily — either on behalf of their clients that include banks, pension funds, mutual funds, insurance companies, or for their own books. Traders who are working with such large amounts of capital expect to quickly and confidently trade those positions — after all, millions of dollars are at risk if there's a glitch.

Another challenge for institutional traders is the fact that digital asset exchanges are highly fragmented. Crypto trading is spread across hundreds of local exchanges, sometimes with significant price differences across exchanges and geographies. This presents both opportunities and challenges —

**"INDUSTRIAL-GRADE' IS MORE THAN JUST A LABEL. IT MEANS A BUG-FREE PLATFORM WITH THE SCALABILITY THAT IS FAMILIAR TO INSTITUTIONAL TRADERS."**

cross exchange crypto arbitrage opportunities that cannot be executed due to a lack of global access.

exchanges to execute instantly, rendering capital unusable while transactions settle.

Uncaptured opportunities include:

- Cross-exchange arbitrage
- Organic liquidity from other regions
- Strategies based on more reliable, normalized market data and signals

Still, structural challenges prevent many institutional traders from capitalizing on opportunities:

- Accounts with multiple exchanges are required in order to exploit cross-exchange arbitrage opportunities — This leads to higher legal expenses due to multiple legal agreements and onboardings.
- Cross-exchange transfers are required — Many trading strategies require simultaneous transactions on different exchanges, tying up capital while awaiting settlement.
- Holding reserves on multiple exchanges is required — Reserves must be held on multiple

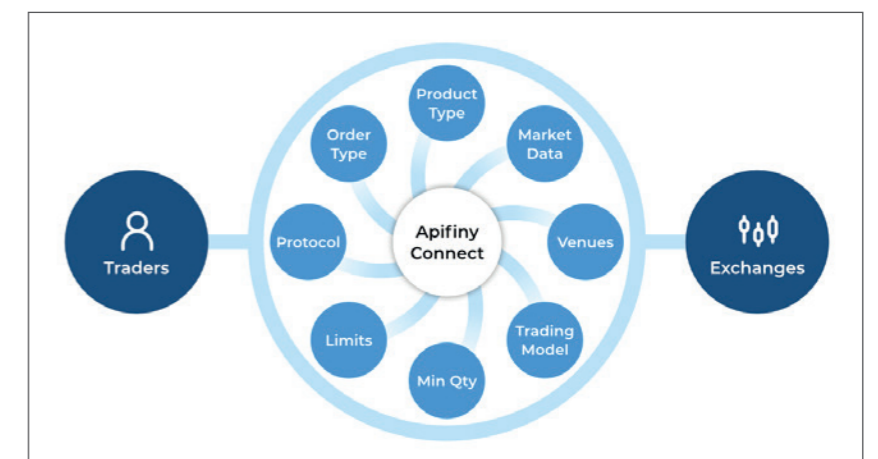
### TAKING THE FIRST STEPS

We had identified the problem. Now it was time to roll up our sleeves and get started. The main phases of development for Apify Connect were:

#### Step 1: Create a global platform

Apify Connect was global from the word "Go!" We agreed that we had to think about this internationally, not regionally, and we based our technical development on enabling "One Account, Global Execution" with several innovations. Apify Connect takes on many of the major sources of friction that slow down global trading. Our operational improvements include:

- **Streamlined Onboarding** — There is just one onboarding process to trade globally with Apify Connect.
- **Single Set of Trading APIs** — Traders need just one set of APIs to manage their digital assets across dozens of



Apify™ Connect enables professional digital asset traders to execute global strategies on over 25 connected exchanges, with one account, one API, and one onboarding.

Inspired innovation – How we built an institutional crypto trading platform for professional investors



One FIX API accesses all connected exchanges

exchanges, instead of a different API for each exchange.

**Normalized Market Data** — Apify Connect provides a normalized market feed, instead of having to monitor a different feed for each exchange.

**Instant Rebalancing** — Transfers between exchanges typically take 20-60+ minutes, but Apify Connect clients move faster with nearly instant rebalancing.

**Convenient Deposits and Withdrawals** — Instead of having

to perform separate deposits and withdrawals for each exchange, Apify Connect clients can deposit and withdraw from one account. They can also transfer and rebalance via a single API.

It's all built on a scalable infrastructure that can adapt quickly to clients' changing needs. We are constantly in touch with our users and can add new features or connectivity quickly to help them roll out different strategies across different venues.



Apify Connect was global from the word "Go!" We agreed that we had to think about this internationally, not regionally

**Step 2: Build the team**

You can't develop new technology without talent, so recruiting the right people was the first stage. We identified two areas requiring an exceptional skill set:

1. Expertise in tech development for high-frequency trading
2. Deep Internet experience, since many crypto exchanges are Internet protocol-based

Key hires included Andrew Banhidi, Head of Research & Technology Sales, who has decades of experience in information technology and services for the financial services industry for Bank of America Merrill Lynch and Goldman Sachs, among others. Since this is a global product, we also hired several APAC-based developers.

**Step 3: Vet the Exchanges**

The search was on from there for the digital asset exchanges to align with Apify Connect. Since our solution allows institutional traders to select a custom subset of leading exchanges to implement their trading strategies, that means weeding out the bad actors that report fake trading. We did extensive research to ensure that the exchanges were legitimate, with real liquidity and healthy trading volume. We made sure that they have proper KYC/AML processes in place.

Legal and compliance were running in parallel with each of these stages. We have an excellent legal team at Apify, and they've been there every step of the way, monitoring the latest developments in every country and state. Before exchanges were added to Apify Connect, they had to pass our rigorous Anti-Money Laundering/Counter-Terrorist Financing Policy Supplement and Know Your Customer Policy for institutional clients. Our policy is reviewed periodically and amended according to industry



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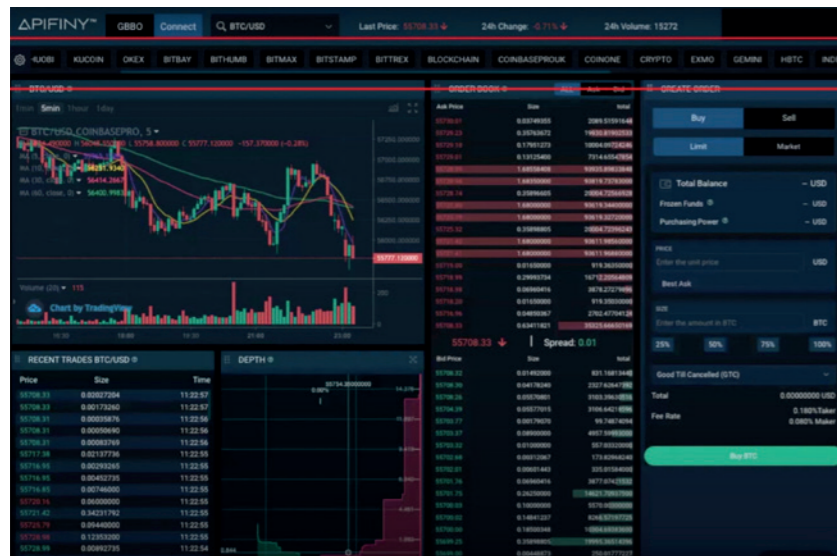
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We're proud of what we've built with Apify Connect

best practices, applicable laws, and international guidelines. Another critical development phase has come into play as Apify Connect went live —perhaps the most exciting stage. Apify Connect's clients are our partners; we want to listen to their ideas and make them a reality.

**ELEVATING CRYPTO TRADING**

As the Apify Connect team moves forward, our mission is to make institutional crypto trading as robust as trading is in traditional finance.

It's clear how much more mature, relatively speaking, the products are for traditional asset classes than they are for crypto. For example, many crypto exchanges can't send more than ten orders per second—that's inadequate in conventional trading where an exchange like Nasdaq can send up to 100,000 orders per second. Additionally, most of the crypto exchanges only support WebSocket and REST protocols, but don't support the FIX or binary protocol, which is the default in the exchanges supporting traditional asset classes such as equities and futures.

With Apify Connect, we want to see the crypto industry move past such technical shortcomings, as well as challenges in the legal and compliance

sectors. For example, many exchanges can't create multiple accounts for traders, which is a major impediment to executing global strategies. On that note, our status as a fintech startup has kept the Apify Connect journey interesting. We don't have the mega budgets of many big Wall Street firms, so we can't just throw money at problems. Instead, our mindset is to make the most out of every resource.

While that may appear to be a limitation, it also goes hand in hand with what makes Apify's collaborative environment so rewarding: we can move at crazy speed compared to the big banks. It's taken us just over a year and a small team to create what would typically be built in three years by 100+ people. That's amazing and humbling.

**GLOBAL GOING LIVE**

With the launch of Apify Connect, we've stayed true to our vision of "One Account, Global Execution," delivering industrial-grade ease to institutional crypto investors. Apify clients enjoy a single, streamlined onboarding process. It's the same with trading—institutional investors no longer need APIs set up with dozens of exchanges. Instead, Apify Connect provides one REST/ WebSocket API, or FIX API, that

manages the infrastructure for traders, OTC desks, brokers, and market makers. It's a fast, comprehensive connection that creates an efficient execution platform for our clients.

In addition to helping institutional crypto traders, Apify Connect benefits the exchanges we work with by driving unprecedented flow to them. Previously, institutional investors wouldn't have been able to send their large order volume to most of these crypto exchanges, but because of our model, now they can. As the exchanges' trading volume goes up, so does their revenue.

**THE NEXT STEP FOR DIGITAL ASSETS**

We're proud of what we've built with Apify Connect. However, we hope that Apify isn't the only company making rapid progress with solutions for institutional crypto investors. That's because it's not a question of if, but when the digital asset market will mature. Once that happens, institutional trading volume will be drawn en masse into this asset class. As these investors emerge, they'll require an industrial-grade execution platform like Apify Connect for deploying significant crypto investments. The more complementary solutions there are to make it even easier for professional traders to invest in the digital assets space, the better.

We're confident that Apify Connect will be seen as the elite execution platform for institutional investors, just as we'll be glad to keep improving it together with our customers. We haven't even scratched the surface of cryptocurrency's possibilities, even though it has existed as an asset class for over ten years. When it comes to building digital asset services with worldwide impact, we're just getting started. (Editors note: This article was originally published on 8/20/20 and revised on the 11/9/21.)

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