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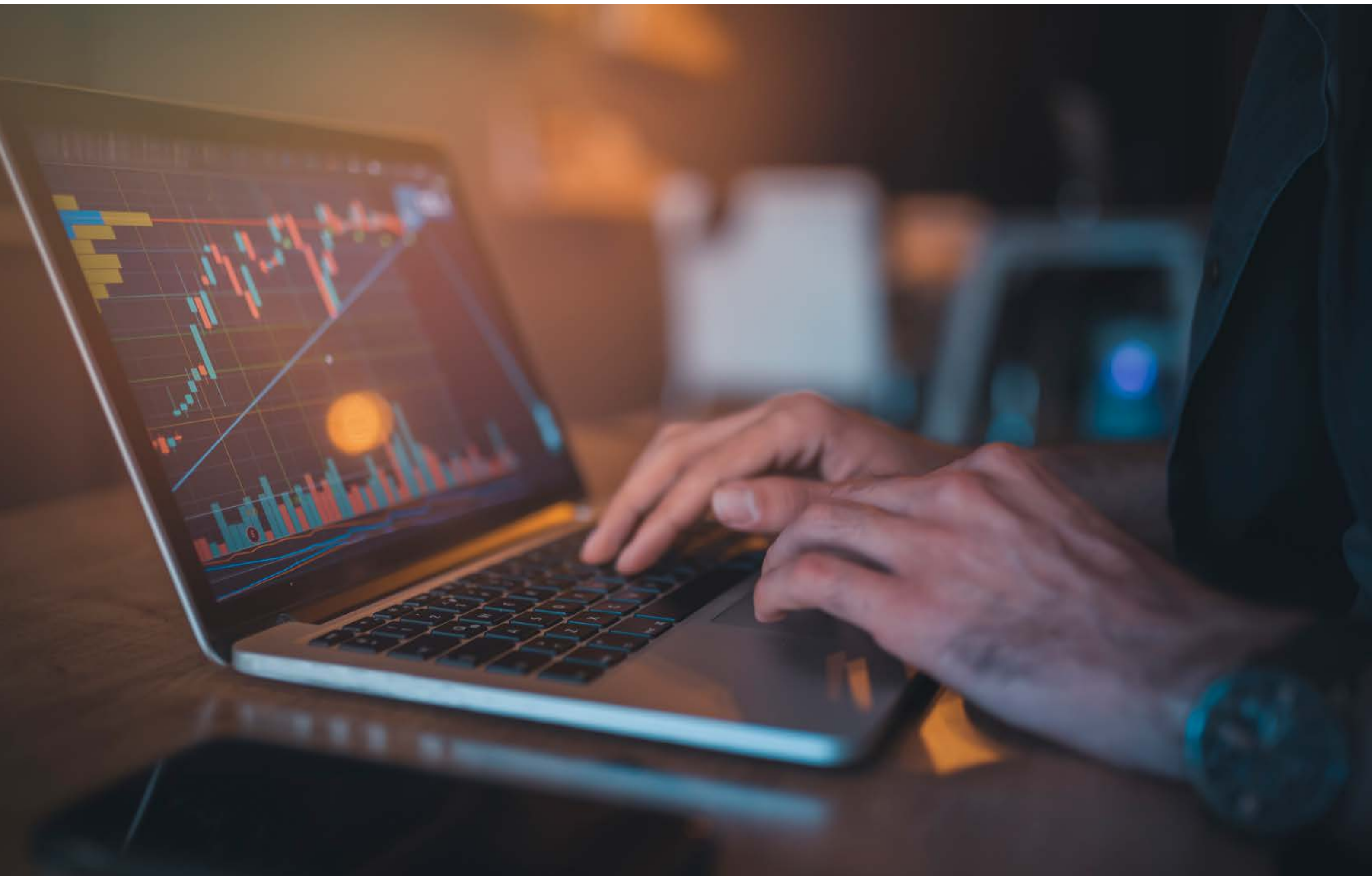

Bridging the gap between centralized and decentralized finance

by Hugh Richards, Ecosystem Strategy, Banking and Capital Markets Solutions, Luxoft

The promising notion of a fully decentralized and highly optimized market achieved through digital trading and settlement, acts as a beacon of change for the financial services industry.

In the wake of rising adoption rates, global regulation and legal treatment of digital assets, it's not surprising that the change has forced its way to the top of boardroom agendas, potentially paving the way for wholesale adoption of decentralized models.

All very progressive. There's just one thing. As the adoption of digital trading gathers speed, will we reach a tipping point for decentralization, or hit a gap in acceptance?

We must avoid the paradox that a decentralized world will only be achieved by broad adoption of centralized digital assets. In fact, it's only when decentralized and traditional markets work together that adoption can progress.

This state will only be achieved when the participants in those markets are prepared to shift, but how can the change to market conventions and systems be safely achieved?

Simplify, reduce costs, differentiate

It's important to remember the journey that many financial institutions are already on. To improve operating margins, institutions are simplifying and lowering costs of their technology estates. A key part of that is embracing change around the following:

- **Big data** — mapping out your own data and trading networks, discovering how to focus on differentiating activities and simplifying non-profitable pursuits
- **Machine learning and AI optimization** — identifying and calibrating optimizations for better trading, settlement and risk management with a reduced dependency on manual intervention
- **Adoption of blockchain to optimize networks** — blockchain now optimizes the transaction state and reconciliation management across many public and private trading networks
- **Progress to the cloud** — cloud adoption for the migration of complex demand and compute infrastructure continues to drive cost optimization as part of large-scale outsourcing
- **Centralized cybersecurity reinforcement** — security solutions and threat management continue to evolve and mature as cloud transition and technology consolidation progresses

It's important to get the order of these changes correct, to ensure that the end state is simplified, integrated, optimized and secure. If mission-critical and real-time systems are out of sequence, you run the risk of accidentally "putting the elephant in the cloud", confusing activity with progress and without monetary benefit.

On its own, this complexity is only one of three competing drivers facing institutions:

- To simplify and meet cost optimizational goals for the technology estate
- To enter safely into initial digital trading opportunities
- To brace for larger digital expansion as far as regulatory and legal frameworks allow

All three are interrelated, in terms of the sequence of change and the technologies involved. However, institutions can't wait to complete each step in sequence, rather having to adopt hybrid solutions to progress on all fronts.

More optimization and less friction,
but a need for trust and custody

Cryptocurrency has been a fantastic digital market driver, proving the benefits of frictionless trading and helping drive the use cases required for defining effective initial digital regulatory and legal frameworks.

With digital currency, there's none of the printing, cleaning, sanitizing, issuing, recouping or burning involved with a physical currency and, for the most part, monetary balances are already electronic. Equally, the lack of physical documentation required for the issuing and custody of new digital debt is far more efficient than with traditional markets.

Why on earth wouldn't the world move wholesale into digital currencies and issuance? It all comes down to the markets warming to the idea of trust and custody. While we may have frictionless global cryptocurrencies, the use cases seen to date are only a start from the perspective of global law, monetary policy, regulation and enforceability.

Current global markets are governed by many levels of safeguards and controls that maintain safe and efficient markets, monetary policy and necessary circuit breakers. Recent losses due to stolen cryptocurrency, highlight the need for the endurance of these protections and the work ahead.

Further emergence of strong custody agents, integrated into the global market settlement process is required. The nature of initial digital assets is that they can act as a source of monetary settlement and collateral themselves. How can institutions include their newly invested holdings effectively into the settlement and collateralisation process of traditional markets? To achieve this, hybrid and seamless settlement solutions are required for institutions to settle across the multiple digital markets.

Central Bank digital currencies (CBDC) to accelerate momentum

In 2009, Bitcoin was heralded as money without government. Just over a decade later, many governments are contemplating the need for their own digital "stablecoin" currencies.

As links between central and commercial banks, and everyday customers grow, central banks (by way of digital currencies) will have a direct and positive effect on the digital markets that, in turn, may rely on them.

As governmentally regulated digital currencies (sovereign stablecoins) emerge, they will further support market confidence with guaranteed and frictionless cash collateral, leading to the accelerated growth of digital instrument issuance and digitally traded market volumes.

Digital market asset growth

The focus on cryptocurrencies dominates most discussion on digital assets. However, digital issuance of bonds, equity and notes are on the rise.

As this issuance increases, so will the use of these holdings as a basis for collateralization in further traditional and decentralized trading, and with the necessary legal and regulatory frameworks following, secondary markets and collateralization globally.

Digital currency settlement is the first step to get right. Adopting hybrid models now for traditional (FIAT/cash) and digital (initially cryptocurrency) settlement will pave the way for enabling broader digital issuance and the incorporation into existing settlement workflows.

What is the **tipping point for DeFi?**

As discussed, the shift to decentralised finance is dependent on at least four related factors:

- Need for hybrid and seamlessly integrated settlement workflows
- Further emergence of strong and global digital custody solutions
- Increased digital issuance of equity, bonds and notes, and global regulatory recognition
- Stablecoin emergence to build global market acceptance and stability

Cloud hosting of critical systems was less in vogue 5 years ago and natural resistance to change will reduce, and the acceptance of a shift to decentralized trading will accelerate.

There will come a time where acceptance is total, and yet, the market will be held back by legacy systems. The tipping point will be when 20% of today's equivalent trading volumes involve digital assets. That's the point of no return. If I were a betting man, based on current market and regulatory trends, I'd say this could happen within 3 years. The remaining 80% will take 10 to 15 years to convert. There are a lot of existing actors and legacy to replace first.

Get in touch

We've experienced a seesaw of innovation since establishment of the first cryptocurrencies, smart contracts, ICO dashes and crashes, NFTs, the heralding of cloud ecosystems and big data advancements; each characterized by success and failure. Nevertheless, the rate of decentralization and market optimization is subtly accelerating.

If you'd like to delve a little deeper into optimization, decentralization, collateralization and related topics, visit **luxoft.com/capital-markets** or contact **financialservices@luxoft.com** and find out how Luxoft guides organizations like yours through the complex changes undertaken by the industry on a regular basis.

These and other topics were recently discussed in a **webinar** jointly held by Luxoft, AWS, and GMEX Group titled "Bridging the institutional divide between centralized finance and decentralized finance".

For a case study example of this in action, please refer to this recent AWS, DXC and Luxoft cloud leadership series **article** titled, "Simplifying and accelerating access to digital assets marketplaces", featuring our project with GMEX MultiHub.

About **the author**

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Hugh has gained over 30 years' experience in financial services, investment banking, software company management and market strategy. He brings a unique balance of global business and technology leadership, focused on strategy, execution and innovation change management.

About Luxoft

Luxoft is the design, data and development arm of DXC Technology, providing bespoke, end-to-end technology solutions for mission-critical systems, products and services. We help create data-fueled organizations, solving complex operational, technological and strategic challenges. Our passion is building resilient businesses, while generating new business channels and revenue streams, exceptional user experiences and modernized operations at scale.

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