

REDEFINING THE FUTURE OF CUSTODY

Securities Services



The post-trade industry is undergoing a seismic technological transformation, a process which has dramatically accelerated over the last few years, and even more so during the pandemic. This is largely in part due to the exponential growth of digital assets coupled with the growing maturity of distributed ledger technology (DLT), both of which are disrupting the traditional market ecosystem. There is a growing demand for secure and trusted custodian services and the industry is responding in kind.

Incumbents embrace DLT in the face of growing competition

Conscious of the market-wide innovations taking place elsewhere, financial market infrastructures (FMIs) are embracing new technologies such as DLT in order to make investing more efficient and to shorten settlement cycles. For example, stock exchange groups in both Australia and Hong Kong are currently using DLT to enhance their existing processes. In the case of the Australian Securities Exchange, it plans to replace its CHES clearing and settlement system with DLT by 2023. Meanwhile, Hong Kong Exchanges and Clearing is utilising smart contracts to automate post-trade activities – principally settlements – on the Stock Connect linkage. “In addition to existing FMIs re-platforming and becoming increasingly efficient, we are seeing some interesting new market infrastructures entering into the space, and competing with the incumbents,” says Ryan Marsh, global head of DLT and digital innovation for Citi Securities Services.

One area where DLT is likely to be especially impactful is in trade settlements. Current market best practice dictates that trades should settle two days after execution in what is known as T+2, but adoption of DLT could speed up the

DLT allows for a golden source of data to be shared immutably across the value chain in real-time. If entities in the value chain have possession of trusted data earlier, then it is possible to re-engineer processes by making them more efficient, thereby compressing the settlement cycle.



Ryan Marsh, global head of DLT and digital innovation, Securities Services, Citi



settlement cycle to T+0 or even facilitate immediate, atomic settlement.

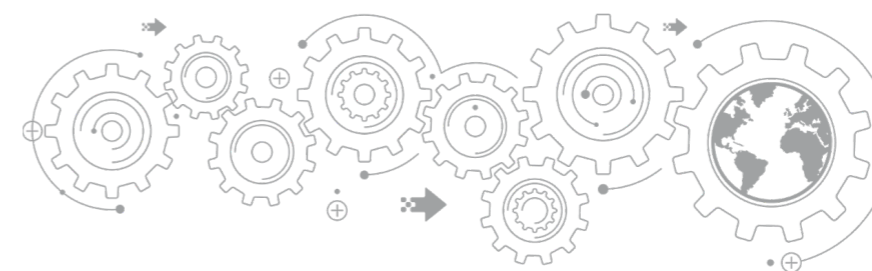
FMIs – including the Depository Trust & Clearing Corporation (DTCC) in the US are actively exploring the application of DLT in trade settlements, while a handful of new entrants have successfully trialled the technology. For instance, Paxos – a US-based DLT-enabled settlement platform – recently supported Credit Suisse and the brokerage arm of Nomura in settling a US equity trade on a same day basis.¹



Existing FMIs are deploying new technologies such as DLT to make existing processes more efficient



Tokenization of assets such as alternatives allows investments to be automated and serviced through newly developed infrastructure networks



New FMIs are emerging, enabled by new technologies and seeking to compete with incumbents by doing things differently



New types of assets are emerging that will behave differently to existing assets

¹ Global Custodian



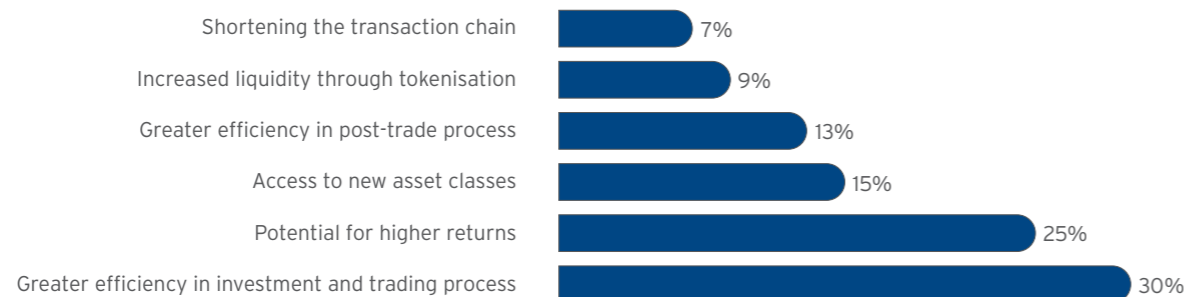
Overcoming the barriers that lie ahead

However, the wider integration of DLT into post-trade processes is likely to face a number of impediments. Although there are various DLT based platforms emerging which do not use batch cycles and operate 24/7 in real-time, they cannot compress the settlement cycle in isolation. "Irrespective of whether you have an FMI operating 24/7- if it is connected to a legacy payment settlement system that operates in batch cycles, then that will ultimately impair moves to T+0 or T+1. Efficient cross border same day settlement can only be achieved by having a real time 24/7 digital FMI connected to a real time 24/7 payment infrastructure," explains Marsh.

Perhaps the most significant obstacle preventing the market from transitioning to T+0 immediate, atomic settlement is that its current models require counterparties to pre-fund their trades, which creates added costs and counterparty risks. However, Marsh noted that banks could find ways of extending credit lines to clients more efficiently – precluding them from having to pre-fund positions for trades settling on T+0.

Another barrier is the absence of any industry-wide DLT standards, something that could make it harder for different DLT platforms and protocols to interoperate with each other. Work in this area is progressing with the development of smart contract language which straddles multiple DLT protocols. However, more needs to be done in this field.

Most significant advantage of digital assets?



Source: "Is the Securities Services Industry Ready For Digital Assets" Global Custodian

While DLT offers significant benefits, a number of hurdles need to be overcome before its full potential can be realised. However Citi is focussed on reducing these barriers by developing middleware access solutions that minimise the technical changes required by clients.

An industry in the midst of disruption

Digital assets are also likely to usher in an evolution in how post-trade operates. "The emergence of new assets – such as cryptocurrencies and non-fungible tokens – are being created based on blockchain technology and they behave very differently to traditional assets," says Marsh. What was historically a retail-orientated market is now becoming increasingly institutional as sophisticated investors incorporate digital assets into their portfolios.

A recent survey by Citi and Global Custodian found that 91% of respondents view digital assets as the future and 48% of financial institutions believed institutional investor appetite for digital assets would grow rapidly. This will likely be fuelled by the various investment and operational benefits digital assets confer. For example, 30% of respondents believe that digital assets would facilitate efficiencies in the investment process while 25% indicated that these assets could potentially boost returns.

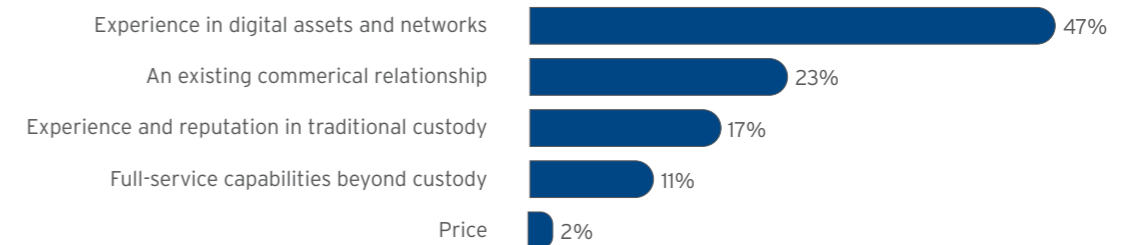
The industry is responding to these changing dynamics, but it must do so in a way that does not compromise existing services. A number of digitally native banks servicing digital assets are obtaining banking licenses allowing them to hold cash and provide traditional services. In response, existing custody providers will have to evolve their capabilities to meet increasing client demand for digital assets.

At the same time however, custodians and FMIs need to keep offering traditional services as the digital asset ecosystem will take time to grow and become mainstream. "Market participants recognise they need to evolve to work with new asset classes. In Europe, the Swiss Stock Exchange has established the SIX Digital Exchange, which is building capabilities to support this new digital world. However, it is still retaining the legacy infrastructure to support traditional assets," says Marsh.

The ability for incumbents to service both 'old' and 'new' assets will be essential. The same study found that 47% of financial institutions highlighted experience in digital assets and networks as the most important consideration when appointing a digital asset custodian, followed by their expertise in traditional custody with 23%.

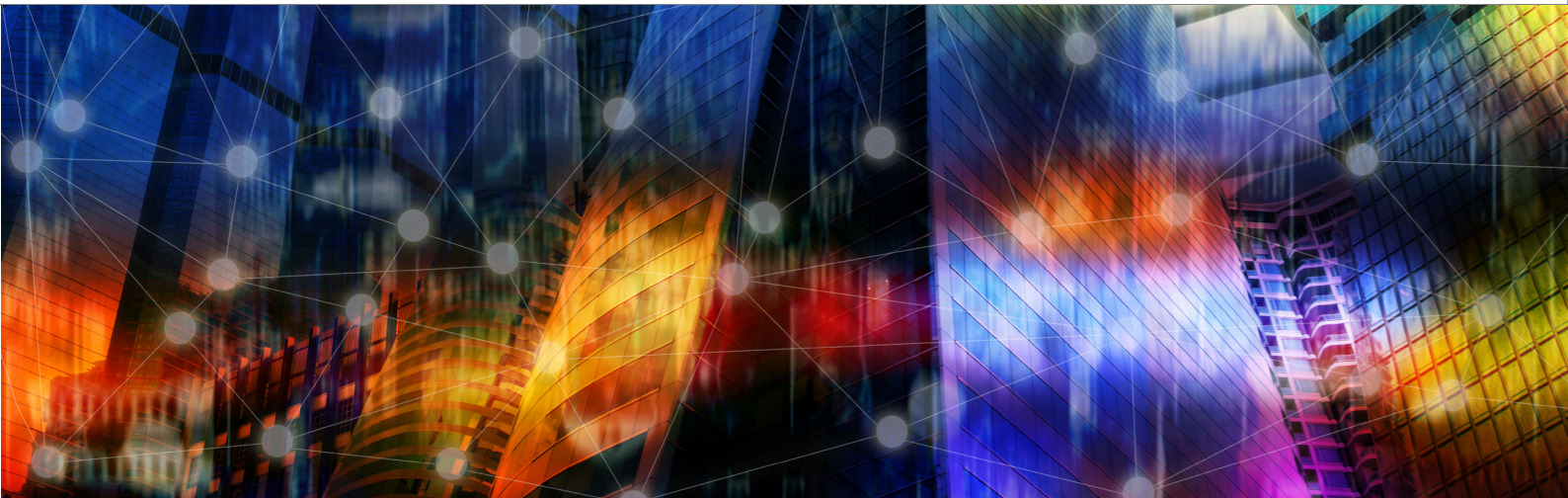
"We are seeing new digital marketplaces emerge along with new assets, so we – as a service provider – need to provide connectivity to those markets. However, the old markets are not going away anytime soon. For us, it is really important to be able to connect into both the new world and the old world. Clients do not want to appoint digital custodians for their digital networks and retain legacy custodians for their traditional networks. Custodians need to find a way of combining the old world with the new. It is also critical that we integrate new and old technologies in a seamless fashion," adds Marsh.

Most important consideration when appointing a digital asset custodian



Source: "Is the Securities Services Industry Ready For Digital Assets", Global Custodian





Custodian of the Future

Custodians are poised to play an instrumental role in connecting clients with new digital asset market-places and infrastructures, in what will effectively be a major upgrade of the industry's existing core capabilities. "We have created a middleware layer which sits between the bank's existing securities services technology stack and external DLT networks. This allows us to connect to multiple networks and scale quickly so that clients do not need to build the same functionalities. This is now live and connected to three blockchain networks and we intend on scaling this up in the future," says Marsh.

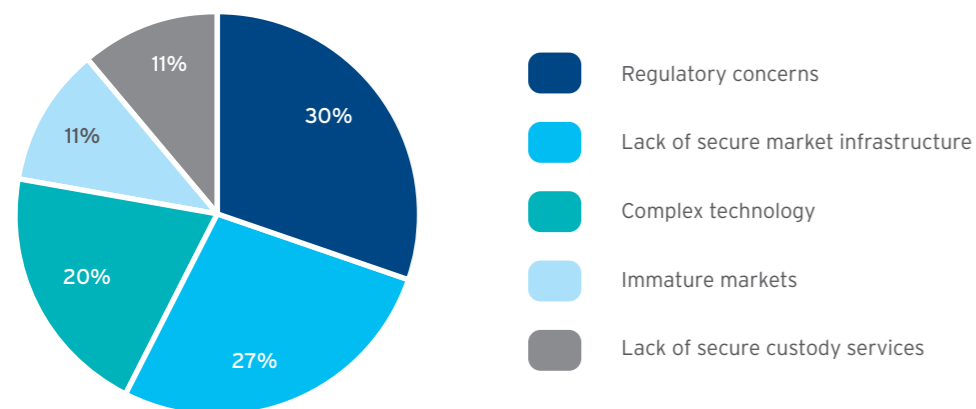
Institutional adoption of assets such as crypto-currencies has been slow because of the increased risks when operating within public blockchain networks. It is therefore critical that regulated, institutional grade safekeeping solutions are developed to maintain the levels of asset safety seen with traditional custody providers. In fact, 30% of survey respondents said a lack of regulation was the main barrier facing digital assets, indicating how crucial oversight is.

Marsh notes: "On public digital asset networks, wallets and assets are publicly visible but controlled via private key. Digital asset custody is about developing safe ways of storing and managing those private keys. The fiduciary responsibility that banks have will not go away. Trust is still vitally important to clients," he says.

A Pragmatic Approach

New technologies are redefining the future of post-trade, and the industry is responding positively. However, the shift towards digital assets will not take place overnight or even within a year or two. This is a long game and custodians need to help their clients navigate this new world whilst simultaneously ensuring that traditional assets and networks are still being taken care of.

Main barriers to engagement with digital assets



Source: "Is the Securities Services Industry Ready For Digital Assets", Global Custodian

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