# The Future of Custody in a Tokenised World

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Tokenisation has become the buzzword of the moment in both traditional finance and digital asset circles. While cryptocurrencies have proven their staying power, with a projected market cap of $4.5 trillion by 2028, estimates of market growth for tokenised assets are projected to outgrow that market substantially. USD stablecoins currently make up the bulk of tokenised assets on public blockchains but new growth is also being driven by demand for tokenisation of debt instruments and real estate funds.

As the tokenisation ecosystem emerges and develops to incorporate real-world assets, new players are entering the market and the range of potential new market participants who were not previously engaged in digital assets is opening up.

In this report, we take a look at some of the challenges, as well as the new opportunities, surrounding custody of digital assets in a tokenised future. Encompassing a range of views from industry experts including asset managers; market makers; issuance platforms; and policy, regulatory and legal experts, we examine what the custody landscape looks like now, how it may shift and what are the exciting opportunities that tokenisation may represent in the future.

What still needs to be built for more widespread adoption to take place? What is lacking from a regulatory and legal standpoint and what do traditional finance players need from custody providers as tokenisation takes off?

Combined with our mapping of the tokenisation landscape today, this report provides fresh insights into how tokenisation will evolve and what the future may bring. What is clear is that, while the custodian's role is shifting and our services will require ongoing innovation to keep up with the pace of change, providing safe, secure custody for digital assets will continue to be at the heart of the financial and capital markets of the future.

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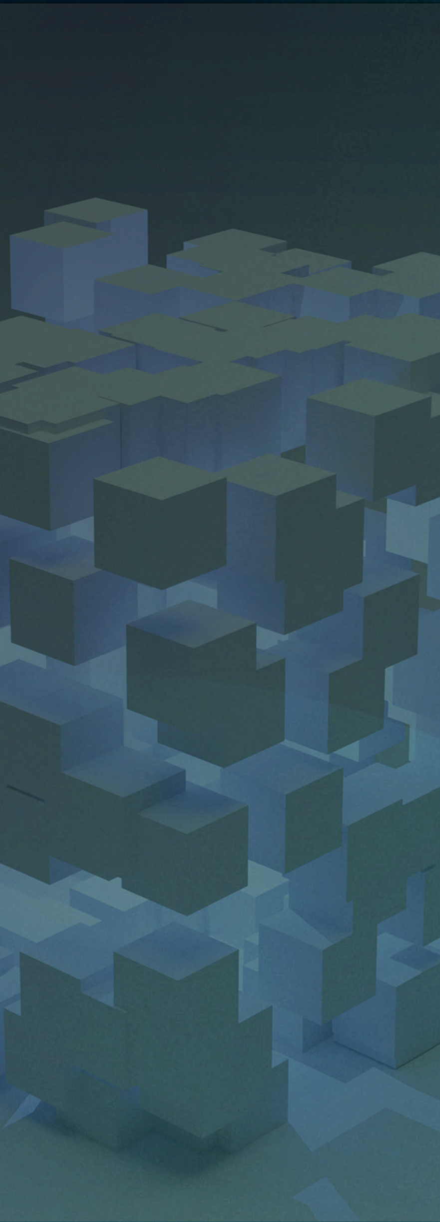

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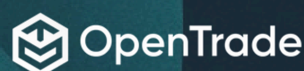


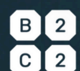

# Introduction

Tokenisation of digital assets is transforming how we manage and trade value, enabling unprecedented levels of efficiency, transparency, and inclusivity in global financial markets. The future of tokenisation has lately become a key topic in both traditional and decentralised finance debates, in some ways outstripping interest in digital assets more broadly. Although cryptocurrencies have proven their staying power, with a projected market cap of $4.5 trillion by 2028[1], market growth for tokenised assets is projected to substantially outgrow the crypto market. Beyond the current domination of stablecoins, demand is rising for tokenisation of securities such as debt instruments and real estate funds[2]. CityAM recently published an article arguing that tokenisation of Real World Assets (RWAs) is becoming "the killer institutional use case"[3]. For digital asset custodians serving the regulated financial institutions, the growth of tokenisation therefore presents enormous opportunities.

Tokens are becoming an increasingly complex concept as the market grows exponentially. A wide range of tokens now exists representing various types of assets including cash, commodities and securities. As tokenisation becomes more widespread, all types of assets are becoming tokenised with profound implications for how we trade, invest and exchange value. Digital tokens are set to transform how we handle digital identity, how we make decisions on corporate governance, how we make payments and the ways in which we lend, borrow, trade and invest. As ownership of digital assets becomes the norm, considering how financial institutions may best look after and manage tokenised assets is becoming more important and more nuanced than ever before.

As tokenisation develops to incorporate real-world assets, new players are entering the market and the range of potential new market participants who were not previously engaged in this asset class is opening up. In this report, Madeleine Boys, Director of Programmes and Innovation at Global Digital Finance; Daniel Coheur, Co-Founder and CCO of Tokeny; Robert Crossley, vice president and EMEA/APAC head of Industry Advisory Services at Franklin Templeton; Thierry Janaudy, CTO of Zodia Custody; Deborah Algeo, Head of Enterprise of Zodia Custody; Ronnie Jaworek, Senior VP of Sales & Business Development at OpenTrade; Charles Kerrigan, Partner at CMS; Thomas Restout, Group CEO of B2C2; and Barbara Schlyter, Head of Xtrackers Digital Products and Partnerships at DWS, examine how the requirements for custody of digital assets are evolving, what the current barriers to more widespread adoption of tokenisation may be, how the requirements for digital asset custodians will change and what future opportunities lie ahead in a tokenised world.

[1] Fortune Business Insights
[2] https://assets-global.website-files.com/64c178af8c7b9aa0bb415c9f/652d2dc5ea81432d2a35f1d2_The%20State%20of%20Tokenization%20by%2021.co.pdf
[3] https://www.cityam.com/tokenisation-of-real-world-assets-becoming-killer-institutional-use-case/

# The Evolution of Digital Asset Custody

Giving an overview of the current landscape, Madeleine Boys, Director of Programmes and Innovation at the digital asset industry trade association Global Digital Finance comments that: “Tokenisation of real-world assets is dominating financial market headlines right now. It has only been amplified by the likes of Blackrock CEO Larry Fink, who famously said that the next generation for markets will be the tokenisation of securities and real-world assets. This kind of market rhetoric and data that we're seeing has undoubtedly been shaped by the technological advancements and industry use cases moving from pilot to production that we've seen over the past couple of years”.

Thierry Janaudy, Chief Technology Officer of Zodia Custody emphasises that the issue with more widespread adoption of tokenisation no longer comes down to the technology itself. However, he adds that while “we tend to think that the technology will drive adoption, it's not so black and white – it has to be financially viable for institutions to move into that space. If you add blockchain on top of the existing infrastructure it is just an added cost. The more you move on-chain, the better this becomes and then you'll see that the real reduction in costs for running operations like tokenisation is on-chain”.

> “From a technical point of view, nothing is blocking anyone from tokenising anything on-chain.”
>
> Thierry Janaudy, Zodia Custody

Digital assets are unusual as an alternative asset class. They began with adoption by retail users. Initial scepticism from traditional finance took many years to be assuaged before interest from financial institutions rose to encompass the major cryptocurrencies as well as a broader class of digital assets. Since most asset classes tend to be launched by institutions then adopted by retail users rather than vice versa, this has affected how custodial services have developed.

Custody is now required not just for cryptocurrencies but also for a range of tokenised assets such as Non-Fungible Tokens (NFTs) or tokenised securities, such as shares in tokenised money market funds. Custodians also need to be able to facilitate the new ways in which these assets are being deployed – for staking, restaking, lending, or borrowing.

For the heavily regulated traditional finance players now entering the market, the challenges of digital asset custody will be far more rigorous than they have been to date for retail investors.

Digital asset custodians started by providing custody solutions for people holding bitcoin (BTC), ether (ETH) and other cryptocurrencies. Until fairly recently, very few companies operated with a proper custody license, says Daniel Coheur, Co-Founder and CCO of Tokeny, a firm providing compliance infrastructure for digital assets.

> "For financial institutions to come into the markets, we need firms who want to bring in this regulatory umbrella that is required for large institutions to be capable of operating with digital assets."
>
> Daniel Coheur, Tokeny

These companies wanted to offer regulated infrastructure, regardless of the underlying technology being used

> "New joiners who are currently getting onto the journey want to find partners with the right skill set and the right pedigree. The next leg of the journey is to bring in asset managers and banks so they can embrace the move."
>
> Thomas Restout, B2C2

Thomas Restout, Group CEO of B2C2, a leader in institutional liquidity for digital assets describes these two different market segments and how they are evolving: "One is the 'crypto natives' whose technical capabilities are much higher than most of the players that we're imagining when we envision tokenisation of assets. They have built everything around self-custody of cryptocurrencies and they also have all the technical knowledge and the processes to make sure that money or assets are in a safe place".

The second group now emerging is traditional finance players who already hold assets but are not familiar with digital asset custody and the mechanisms required to safeguard assets.

# Mapping the Current Landscape of Tokenised Assets

## OTC Market Makers

## DeFi

## Trading Technology

## Clearing & Settlement

## Lending

## Asset Managers

## Brokers

## Custody & Brokerage

## Issuance Platforms

## Exchanges

So how has the current marketplace evolved since the arrival of bitcoin 15 years ago to today's more complex ecosystem of tokens and tokenised assets?

"Tokenised asset custody is still somewhat fragmented. This partly comes down to differences in regulation across jurisdictions but also reflects the variety of blockchain protocols, different types of tokens and varying technical standards which custodians need to to be able to support as the market develops" Deborah Algeo, Head of Enterprise at Zodia Custody, explains.

"In comparison to traditional custody, crypto custody is an even more integral part of the value chain of an asset's life cycle."

Barbara Schlyter, DWS

Barbara Schlyter, Head of Xtrackers Digital Products and Partnerships at the global asset management firm DWS, stresses that custody is very important in the asset management industry. She describes the concept of the 'investment triangle' which has three central participants: the investor, the asset manager, and the custodian. The custodian is intentionally a third party to reduce risks and ensure sound structures in the financial markets. She points out that this function is even more critical as traditional asset managers transition into digital assets "given that, for cryptocurrencies in particular, there is a risk of irrevocable private key loss. There is no backup and if you cannot recover the private keys, you will lose access to the asset".

Thomas Restout, who previously worked at some of the world's largest traditional institutions like Goldman Sachs and Morgan Stanley, believes that - whether they buy or build it - digital assets custody presents these firms with an opportunity to take custodial services in-house and take market share from other TradFi players like BNY Mellon and State Street who are generally the main custodians for traditional assets. The question is whether these firms truly believe that digital assets are the future and will grasp that they need to really understand how digital asset custody functions by building it from the ground up.

# Challenges to Adoption

Among the major barriers standing in the way of financial institutions and others embracing tokenisation more rapidly, several specific challenges stand out. These include standards, legal and regulatory uncertainty, and taxonomy or unclear definitions of related terminology.

# Lack of Industry Standards

One of the key challenges to more widespread adoption mentioned by all participants is the lack of industry standards suitable for tokenised securities. Since 2015, when use of the Ethereum blockchain took off and smart contracts became more widespread, one of the key challenges was that, although creating a token became very easy, there was no way to ensure that all the different tokens being created could be used or exchanged by everyone using that blockchain. In response to this problem, ERC-20 became the technical standard on the Ethereum blockchain, invented to allow developers to create smart-contract-enabled tokens that could be used with other products and services. These tokens might represent an asset or cryptocurrency or anything else that is not unique and can be transferred. Since the implementation of ERC-20, most Ethereum-based tokens have been created using this standard. While it is still a useful standard, ERC-20 does not necessarily address the complexity of creating interoperability once tokenisation moves into regulated financial instruments.

"What the ERC-20 token is not good at is enforcing control and compliance because it is not permissioned."

Daniel Coheur, Tokeny

Daniel Coheur elaborates further on the shortcomings of existing token standards for the regulated players in traditional finance: "If I want to send you an ERC-20, if I have your wallet address, you will get it even if you don't want it. When you start dealing with financial instruments, they have specific rules attached to them, either for issuing or managing. But there's also a whole ecosystem that is there to ensure trust - the infrastructure can deliver part of that trust but not everything and that does not prevent you from manipulating your own data, you still have third parties that are there to provide services to these issuers".

In response to this gap in the market, Tokeny has been involved in driving and developing a new standard which is aimed at ensuring compliance: "The whole idea behind what we've been building with the ERC-3643 framework is to enable financial institutions and third parties to act in a compliant way. We provide a mechanism to enforce control and compliance. We give the ownership of the token to the issuer or his agent and we make public blockchain legitimate to represent financial instruments".[4]

"Greater harmony could also evolve by asset class, as it appeared to with tokenised US Treasuries, which are frequently deployed as ERC-20s and are straightforward for custodians to include in their token coverage. The same might happen with tokenisation of money market funds."

Ronnie Jaworek, OpenTrade

OpenTrade's Senior VP of Sales & Business Development, Ronnie Jaworek, adds that market fragmentation may improve as specific standards such as the emerging ERC-3643 token standard become more widely adopted and as new asset classes develop. Madeleine Boys agrees that more harmonisation will be required: "As we transition into a DLT environment, standards are much needed. At least today, there is little alignment between many market participants - and that includes regulators - on a desire to facilitate T+0 atomic settlement in a marketplace that operates 24/7 and 365 days a year. Standards governing these robust and interoperable platforms will be key for the governance of this ecosystem. They will help us navigate the complexities of the different network models and facilitate a marketplace where we can have unilateral, bilateral and multilateral engagements without compromising on security or compliance".

# Legal and Regulatory Uncertainty

One of the other most frequently cited obstacles in industry debates, discussed by this report's participants in detail, is legal and regulatory uncertainty. However, as far as the UK is concerned the picture has become much clearer. The FCA and the Bank of England recently announced they are setting up a Digital Securities Sandbox and the legal underpinnings for tokenised assets have also been clarified. The UK's newly-elected Labour government has pledged in its Manifesto that it will "look to make the UK a global leader in tokenisation by advancing work to clarify the law around tokenisation, and working with regulators to establish a proportionate, outcomes-based regulatory regime to oversee the technology.

[4] https://tokeny.com/luxembourg-the-epicenter-of-the-tokenization-era/

Labour will advance the initial progress to introduce the financial market infrastructure regulatory sandboxes to work out the regulatory bottlenecks for tokenisation, and will explore the possibility of a pilot issuance of tokenised gilts via the Debt Management Office to test the impact of the technology and create the demand for tokenised assets. A Labour government will also look to develop partnerships with other financial centres to establish interoperable standards and enable trade of tokenised assets across borders".

According to digital assets lawyer Charles Kerrigan, a Partner at CMS: "There shouldn't be any legal issue with tokenised products because the Law Commission's work on digital assets has squared that off for us. Under English law, we can now recognise these tokenised assets as property sitting on a blockchain. They don't differ in law. Their real-world characteristics may differ but not based on whether they are sitting on-chain or off-chain. But there wouldn't be a distinction substantively between bonds or equities or other securities - only the way they're represented, whether digitally or physically".

However, the technical complexity of custodial solutions may still pose challenges: "What's more difficult is accommodating the range of participants in the market because there are a number of technical approaches to custody of crypto assets".

"The problem is ensuring that the customers of custodians have a good understanding of the technical basis on which the model they are using is based, as this has implications for operational resilience."

Charles Kerrigan, CMS

Regulating digital assets is a huge challenge for policymakers who need to understand the innovative potential of this fast-moving technology and how the use of cryptocurrencies - and digital assets more broadly - may evolve. Robert Crossley, Vice President and EMEA/APAC Head of Industry Advisory Services at asset manager Franklin Templeton, believes: "We need to start with the use cases, and modify the existing regulatory structure to allow them or identify areas where regulatory frameworks need extending or filling in." Conversely, Daniel Coheur thinks that: "the current regulatory environment is sufficient but we need to provide clarity for financial institutions, so that they have enough confidence that, indeed, they can issue digital assets under that framework".

The industry does still face challenges that need to be addressed. As Charles Kerrigan points out: "Firms need to be able to demonstrate to the regulator that they understand how things could go wrong and what the fail-safes are. Ultimately, it's the board who will be responsible if a poor choice is made and assets are lost".

Robert Crossley adds: “Regulators globally are balancing multiple objectives, such as consumer protection, financial stability and control, promoting innovation and increasing efficiency. The conflicts and trade-offs inherent in this mean that coordination and communication across the industry and geographies at all levels is extremely important”.

Digital assets are a global market and the fragmented nature of regulation makes life difficult for all operators in the market, including custodians. As an example, currently the SEC’s SAB 121 ruling in the United States still requires custodians to recognise all kinds of digital assets as liabilities on their balance sheets. “This is a significant burden for custodians looking to build out their digital asset capabilities in the US” says Madeleine Boys.

“It is very difficult for custodians today to meet different regulatory requirements across different jurisdictions simultaneously.”

Madeleine Boys, Global Digital Finance

The position in the EU has become clearer since the creation of the Markets in Crypto Assets (MiCA) Regulation which is now in its first phase of being implemented. MiCA, in particular, looks at both crypto assets and crypto assets service providers that offer new kinds of services that previously didn't exist in that exact form for these types of assets. Barbara Schlyter believes that “we're lucky with MiCAR as it fills regulatory gaps where traditional financial market regulations such as MIFID II didn't cover new use cases, particularly around blockchain and crypto assets that emerged over the last couple of years. The EU can be particularly proud to be at the forefront of this regulatory innovation”, she says. Nonetheless, the MiCA Regulation does not cover all use cases and there are still a lot of questions.

“We do have a lot of different national and regulatory advancements and new regulations coming up that address specific digital asset questions and use cases, but looking at the whole picture there are bits and pieces missing. For example, Exchange-Traded Products (ETPs) are generally characterised by having a primary and a secondary market. Trading on the secondary market in certain jurisdictions requires that you record the ETP in a central register. Thus, for secondary market tradeability of tokenised assets, existing regulations have to be changed, given that the blockchain voids the need for centralised registers”, she adds.

In the EU, there is likely to be more focus on regulation that applies to tokens representing specified investments under MiFID II. More service providers within the tokenisation ecosystem will come under the regulatory spotlight, not just limited to firms such as digital securities exchanges, which already have to be licenced.

"This may help to bring the tokenisation market to a point where it is seen as a transparent and safe way to manage investments, especially by TradFi participants" says Ronnie of OpenTrade. Regulators are actively educating themselves through sandbox projects. For example, as Deborah from Zodia Custody explains, the Hong Kong Monetary Authority has launched a sandbox project where Standard Chartered, Animoca Brands and the telecoms company HKT have partnered up to test a token with the regulator overseeing them. They've got a level of criteria which they use to validate this tokenisation use case. Zodia Custody is excited to be the custodian for that project".

According to Madeleine at GDF, there is a bright side for providers. All this regulatory uncertainty may present custodians with an opportunity to work collaboratively with policymakers to enhance their position as trusted intermediaries: "custodians are very well-placed to engage with and support regulators and policymakers to resolve some of the uncertainties that exist today in this transition between traditional financial markets and DLT-driven markets. They will play a significant role in promoting harmonisation across national and international levels. Security and safeguarding capabilities are intrinsic to their business model, so they really sit in the middle of this and that positions them very well to support regulatory engagement and facilitate their role in this market".

# Why Do Traditional Finance Players Need to Embrace Tokenisation?

Most of the world's largest financial institutions are now increasingly keen to embrace tokenisation. Once entirely sceptical of bitcoin and cryptocurrencies, firms such as BlackRock have now launched a Bitcoin Exchange-Traded Fund while, according to a recent article in Coindesk, Goldman Sachs Digital Assets Lead Matthew McDermott "views tokenisation as a growing trend due to the sheer benefits of "digitizing the lifecycle" of asset issuance, which not only improves firms' operating efficiency but also liquidity by potentially bringing in a wider group of investors".

"In crypto, we like to build products with the idea that production will come. But utility, in my view, remains at the centre of of the conversation."

Thomas Restout, B2C2

However, Thomas at B2C2 says we need a more realistic view of utility and what will happen with the next generation of investors: "If you look at what the traditional market is doing, we've seen some great initiatives from very large players issuing money market funds on-chain, for example.

The question is what is the objective of that initiative? I am convinced that the commercial angle to that is appealing to future customers who are already trading or holding digital assets. When those people have enough money to be of interest to those large players, they will need to have products that match their own desires. f you've been born and raised on the internet, you have no problem using an internet bank; if you were born and raised in a world where you were going to your branch, you still want to go to the branch. Large firms are on the journey of finding utility in tokenisation to appeal to those new participants".

Despite the rise in interest from traditional firms – such as BlackRock, which recently set up a $100 million fund on-chain called 'BUIDL' to invest in tokenised assets – participants in this report's discussions noted that several challenges remain. In particular, the need for clearer definitions of digital asset terminology; better interoperability between blockchains (and ultimately between assets themselves); a smoother transition from traditional ways of doing things into using tokens and tokenised assets; and the need for liquidity, especially in secondary markets.

Deborah of Zodia Custody explains: "Think about gaining total transparency over your products - knowing where they are, who owns them, and their current value. Then think about operationalising how you provide the services – being able to reduce transaction costs, have instantaneous settlement times with automated processes, and have few to no intermediaries. Suddenly tokenisation is saving you the traditional overheads that you would have with those business units, and you can also achieve so much more, so much faster.

"Why would a financial institution want to participate in tokenisation? Whilst there's an upfront investment in operationalising and deploying the technology in the business there is also a long-term play".

Deborah Algeo, Zodia Custody

## Clearer Terminology

"Driving institutional adoption is a case of understanding what do we mean by "blockchain"? What do we mean by "Distributed Ledger Technology (DLT)"? What do we mean by "crypto"? What do we mean by "digital assets"? You often hear these buzzwords thrown around without regard for differences and nuances, which detracts from meaningful use cases.

Indeed, taxonomy and definitions are still a thorny issue in the industry globally. In the US, the Commodity Futures Trading Commission's Global Markets Advisory SubCommittee on Digital Asset Markets has recently introduced its Digital Assets Taxonomy aimed at creating a "level-playing field" for digital assets assets from a taxonomy perspective across different jurisdictions. As Madeleine Boys comments: "This has not yet been adopted in different jurisdictions from a regulatory perspective so the issue remains, but it is an attempt to provide market participants - from industry to regulators - with a taxonomy that all can use to discuss digital assets in the 'same language'".

# Interoperability

One of the key requirements is also to create better bridges between the traditional world and the digital asset world when it comes to asset transfer and settling the cash leg of transactions, in particular.

Stablecoins have a fundamental role to play in this regard and this accounts for their dominance and market growth. USD-denominated stablecoins currently represent 97% of tokenised assets on public blockchains, but stablecoin projects in other major national currencies including Euros and Pound Sterling are also hotting up. "Once stablecoins bridge that gap effectively, it opens up trading opportunities that did not exist before. It also reduces friction, to an extent that banks have never seen before. We will go from T+2 to T+1 to potentially almost instant settlement. This brings a massive reduction in counter-party risk," says Thierry of Zodia Custody.

"We tend to think of interoperability of blockchains but really the fundamental interoperability we care about is interoperability of assets."

Robert Crossley, Franklin Templeton

Robert at Franklin Templeton argues that stablecoins alone are not sufficient and the market also needs other new forms of digital money such as Central Bank Digital Currency (CBDC) and tokenised deposits to operate most effectively: "Currently, the only option is to exchange your fiat current for non-interest-bearing stablecoins with varying degrees of investment latitude and opacity. Over time, the emergence of alternatives to stablecoins, such as digital fiat currency and traditionally regulated money market funds, will change how we think about money and what we use as money." From a political and monetary policy perspective he also expects governments to want to introduce digital fiat currencies: "Every country cares about its financial stability, its tax base, and its ability to control the price of money, both internally and externally. It is difficult to not see CBDCs as being a matter of when, not if".

## Ease of Use

Beyond needing more effective interoperability between tokenised assets and cash, traditional finance firms often struggle with the new processes needed to incorporate digital assets into legacy systems. Deborah at Zodia Custody explains: “At Zodia Custody, we have encountered cases where TradFi players attempt to apply the same systems and processes to digital assets as they would to traditional assets and replicate them one-to-one, without accounting for the major differences between them. Whilst they may be seeking the same end result, the journey to get there needs to be suited to the underlying technology. Cloning legacy processes is simply not applicable”.

Daniel at Tokeny agrees that what financial institutions want is ease of use: “They don't necessarily want to start cherry-picking one element versus the other. They've identified their needs, they have existing workflows, and they want to be able to plug in all those technology solutions into this workflow to make it work seamlessly”.

Barbara of DWS emphasises that digital assets is still a small niche for asset managers and more needs to be done to integrate digital assets into traditional processes: “We need really easy solutions. We need the custody piece to integrate into the existing custody setup, into our reporting setup for client reporting and regulatory reporting. If there are corporate actions around these tokenised assets, we need to fit that into existing processes. For a couple of smaller investments in the beginning we can't rethink everything”. At some point, however, Barbara says we do need to start rethinking: “We will need a lot of innovation and a lot of investment to drive these opportunities. Who will really take a first mover step in making these very big investments and find the right use cases? You will need to hold your breath until profits crystallise”.

## Liquidity

There are structural challenges that still need to be addressed, however, particularly concerns around liquidity. According to Ronnie Jaworek: “You don't currently have the scale of connectivity that you would in traditional finance. Clients, both on the investor and the issuer side, are particularly worried about the lack of liquidity in the secondary market”.

> “Where an issuer might choose to issue a digital bond, investors may be concerned about their potential inability to exit their position before the bond reaches maturity should there not be a market for it.”
>
> Ronnie Jaworek, OpenTrade

Barbara Schlyter also sounds a note of caution: “You really need to have big incentives for people to move to the at least initially more illiquid market. From an asset management perspective, we have a fiduciary responsibility to our clients. If we now want to invest in a tokenised bond that is less liquid than the traditional bond in the traditional system, how can we justify that to our clients?”

> “For tokenisation, liquidity is one of the key hindrances, because by design, if you create a separate market, you're taking some liquidity from the initial market.”
>
> Barbara Schlyter, DWS

## What Role will Custodians play in the Token Economy?

The advent of tokenisation clearly presents a major shift in how custodial services are delivered both for digitally native firms and for traditional institutions moving into digital assets. While challenges exist in making that transition for the traditional providers, Madeleine at Global Digital Finance thinks that, in this new world, tokenisation presents custody providers with enormous potential to innovate: “Custodians have a real opportunity to enlarge their service offerings with new products as well as to offer new value-added services like the development and application of smart contracts or enabling interoperability between different DLT networks and protocols. There's a huge amount of opportunity in this future world, and custodians are well placed to facilitate market connectivity and interoperability, positioning themselves as key players in the future of digital financial market infrastructure."

Robert at Franklin Templeton believes the role of the custodian is fundamentally unchanged despite the advent of tokenisation: there is a whole host of additional services that become possible in a digital world that custodians could provide or facilitate. It's almost beside the point whether it is digital assets or traditional assets”.

> “What custodians provide is safety, simplicity, ease of control and transparency. The asset may change but the need doesn’t.”
>
> Robert Crossley, Franklin Templeton

Nevertheless, there are areas of custodian's business models that will come into starker focus in a tokenised future: "As traditional and real-world physical assets move on-chain, proof of existence and proof of control and proof of sole control will become so much more important and custodians will have to an important role to play".

While there is likely to be some consolidation in the custody market, it is not necessarily the case that only large custodians will prevail. In all likelihood, a range of different custodians will be needed to serve the differing requirements of, for example, a crypto-native hedge fund versus a traditional asset manager.

Charles of CMS says it is not a question of one size fits all: "the only thing stopping custodians from being one-stop shops is customer relationships and brand. On that basis, some custodians will be successful and will become one-stop shops and others will still be successful, but in their specialist markets".

# Future Opportunities in a Tokenised World

Tokenisation may not be advancing as fast as many in the digital assets industry would like but Thomas at B2C2 says it was ever thus: "It will always go slower than people want it to. People thought we would sit in Tesla's doing nothing all day long and they would drive us around, but we are still so far from that. People thought that when the internet started everything would be online, but 30 years later, we still have loads of retail stores everywhere and they're working pretty well. Production takes a long time because a lot of people are happy with how they're living right now. We don't have to imagine all the time that people are not happy and that they want something faster, better, and stronger".

Despite the gradual pace of change, perhaps the most exciting element of tokenisation remains trying to predict how it may change the future of finance. Likely, just as it was almost impossible to see how smartphones would revolutionise the way we used the internet, we are unable to project all the potential uses of tokens that will prevail in the years ahead.

Yet, if we look at the current state of financial services, there are several areas where tokenisation can bring incremental innovation. Barbara from DWS thinks that corporate actions is one area that is ripe for reform: "There are many processes, such as corporate actions, where automation would do a lot of good to the traditional financial system. If you design processes from scratch, hopefully there's more inherent automation in there. Given that assets suddenly become programmable and money also becomes programmable - so both legs of the equation. That's something we hadn't seen in the past which is offering new opportunities".

Another example would be embedding compliance into a token, solving the hurdles that some tokens are not available to investors in certain jurisdictions due to varying regulatory regimes. Barbara continues: “What if now you could embed into the token a list of countries where that product is registered.

Then we could have compliance by design and that would also help the regulator to perform oversight. Technically, it would be automatically secured and instead of auditing different processes and instances, they could audit the code, which is much easier”.

Deborah from Zodia Custody thinks that one of the biggest opportunities is based on leveraging the T+0 settlement cycle. “Investors could develop entirely new strategies by engaging in tokenised assets, leveraging greater capital efficiency. With tokenisation, you could create all kinds of structured products that either are not currently available, or are issued through inefficient, manual, and complex process. Issuers will bring innovation and creativity into this space over the next decade. Connectivity across markets is also bound to grow exponentially”, she says.

Beyond driving greater efficiency in existing financial services, it is already clear that technological change is driving step-change innovation as well - perhaps even leading to an entirely different conception of what it means to be an asset issuer.

> “Think of a world where with a couple of lines of code, you can effectively create your own token out of the box. Many new business models will come out of this and maybe in future, it will no longer be the primary responsibility of a bank or hedge fund to issue a token.”
>
> Thierry Janaudy, Zodia Custody

The concept of what we mean by a financial asset and its ability to be personalised to suit an investor’s unique interests and profile is also likely to broaden. When assets are more than products, when assets are software, then the different types of utility they can yield will multiply enormously beyond just the exclusively financial. In that world, assets will do many more things and it will be possible to align a portfolio with the capital owner in ways that aren't possible today.

Ronnie of OpenTrade cites environmental concerns as a key example: “Tokenisation projects have already looked at integrating carbon credits with sustainability project financing. Such integrations allow ESG investors to effectively allocate capital to green bonds, with the added benefit of carbon certificate receipt upon successful project completion – all through a single, efficient and transparent investment.”

Deborah from Zodia Custody agrees that interesting initiatives related to climate are happening including having true visibility over a carbon offset. "You can create a full value chain validation to ensure that offsetting is happening. You could create your home as an asset on-chain and implement carbon reduction techniques and then that becomes a tokenised carbon credit. There are pretty amazing things we can do with technology to make the world a better place”, she says.

Robert at Franklin Templeton suggests that ultimately: “A digital asset is just much more versatile, especially as these assets become programmable giving the ability to build in different rights, features and responsibilities”. Further, he adds that: “The industry is trying to understand the implications of the token being the security itself rather than the wrapper, and of being able to do completely new things like flash loans or staking. The custodian will play a key role in these activities”.

“In the future, we will see more use of AI as a personalisation and customer empowerment tool and tokenisation will bring about new products and better services, designed specifically for the people who want to use them.”

Charles Kerrigan, CMS

Digital assets and tokenisation are also continuing to become more sophisticated at the same time as other frontier technologies are converging with them to build what has come to be known as Web3 – the next iteration of the internet. Simultaneously the worlds of traditional finance and decentralised finance are becoming more intertwined. For tomorrow’s cohort of investors, the new era holds a lot of promise.

Thierry agrees that machine learning and AI will play a key part in a tokenised world: “One of the biggest issues we have with all those 1000s of tokens is how do you extract the maximum yield? When you have all those assets on-chain, there'll be a huge demand for data processing, the ability to do crypto portfolio management and machine learning based on on-chain data. The future will open the doors to new business models and, more specifically, to portfolio management.”

Experiential investing will transform transactions into multi-dimensional investment opportunities. A 2023 paper from the Franklin Templeton Institute[5] summarises it this way: "The blurring of the lines between a commercial transaction and an investment asset has significant implications for how "value" gets assigned in the coming world".

## Challenges and Opportunities for the Future of Custody

As trusted guardians of our assets in a tokenised future, custodians' ability to adapt, innovate and go beyond maintaining security and trust to add value in new ways will become more important than ever.

The market for digital assets is likely to become far more complex than it is today. In this scenario, institutional clients will look to custodians not only for the fundamentals of keeping assets safe but as bridges to a network of interconnected market participants trading and investing in a 24/7 T+0 settlement environment. And, as more effective standards and clearer regulations develop, navigating the complexities of digital assets will become easier for regulated financial institutions. Custodians will eventually sit at the heart of a marketplace where a complex set of trading arrangements and relationships can take place efficiently at high speed without compromising on security or compliance.

As Madeleine at GDF concludes: "In this new digital financial market infrastructure custodians will become value-adding partners by not only leveraging the technology to enhance their service offering but also by being this core driver of trust in the financial sector's future".

It is clear that the custodian's role is changing to become an integral part of a tokenised ecosystem – a facilitator, an enabler and a bridge to a new world whose future possibilities are not yet fully realised. Tokens are no longer on the margins – they are here to stay and their innovative potential will shape the financial markets of tomorrow.

[5] https://www.franklintempleton.co.uk/articles/disruptive-technology-views/experiential-investing-how-web3-commercial-transactions-are-creating-new-asset-classes

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