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The Investment Association

Tokenised funds series

Paper 6 - Operational and cost differences

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The Investment Association
in partnership with CMS

Contents



1. **Investment funds – the past, present and future**
2. **Compliance and governance – perceived advantages in tokenised funds**
3. **Transferability**
4. **Administration**
5. **Security**
6. **Cost differences between traditional funds and tokenised funds**
7. **Closing Statement**

About this paper

This is the sixth and final paper in the IA series on tokenised funds, in collaboration with CMS. In this paper we explore the operational differences between traditional funds and tokenised funds and the implications for cost. Previous papers have provided an [overview of the concept](#) and the [regulatory environment](#).

1. Investment funds – the past, present and future

Tokenisation, and tokenised funds in particular, are relatively new developments. This makes tokenised funds an exciting concept with a range of anticipated benefits; however, it also means that many of the potential operational benefits are primarily theoretical at present. As new technologies such as blockchain develop and showcase their potential, it is likely that in the next few years there will be significant changes to how funds operate.

Traditional funds have acted as a vehicle for collective investment by multiple parties. However, investments into traditional funds have often been associated with certain shortcomings such as high minimum entrance levels, management fees and some criticism for being an illiquid asset lacking a strong secondary market. Other issues faced by traditional funds have been their heavy reliance on multiple intermediaries and multi-day settlement times.

The use of Tokenisation and Distributed Ledger Technology (“DLT”) provides an innovative approach to fractional ownership and fundamentally changes the way funds operate.

2. Compliance and governance – perceived advantages in tokenised funds

DLT increases the transparency of information available to all participants involved in a transaction. As the blockchain is effectively a transparent time-stamped ledger, anyone (or at least authorised persons in a permissioned blockchain) should be able to view. Therefore, all participants have access to the same information in real time. This symmetry of information not only increases trust between parties within the fund but allows any user on the blockchain to review the whole history of activities relating to a particular token. Traditional funds often operate in a way which does not provide such easy access to information or arguably such complete information for each investor.

Processes such as AML and KYC can be automated via DLT and can provide a common source for digital identification. These processes can also be hardwired into the blockchain meaning that certain actions can only be undertaken once AML and KYC evidence has been submitted and published into the chain. This would increase efficiency and reduce human errors. This helps to ensure that legislation is complied with,

and ensures that fund managers are not inadvertently dealing with the proceeds of crime or those that are sanctioned.

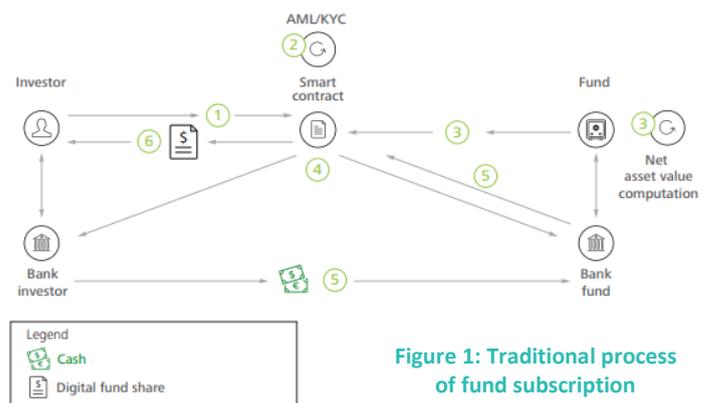
3. Transferability

By transforming fund units into tokens, investors in tokenised funds can enter traditional, or mainstream, investments with the additional ability to trade tokens more easily in a secondary market. This could attract more investors to tokenised funds and tokenisation and more generally may enable more investment into start-up companies and other businesses due to the ability to reduce minimum investment levels. Investment fund tokens are easily and securely transferable by way of blockchain technology, allowing investors to diversify their portfolios, minimize risk and create liquidity in the market. Conversely, issuers are provided access to a wider pool of investors that perhaps previously would not have had access to the market with its higher requirement for upfront capital. Tokenised funds permit secondary market trading potentially maintaining assets under management while reducing the cost of maintaining liquidity in the fund. The ability to fractionalise ownership through the use of tokens can be especially noted in real estate investment funds, where tokens can be used to represent fractional ownership of the underlying assets and have helped increase the transferability of these assets. In the future there may be the possibility to fractionalise rights to revenue streams derived, for example from rent.

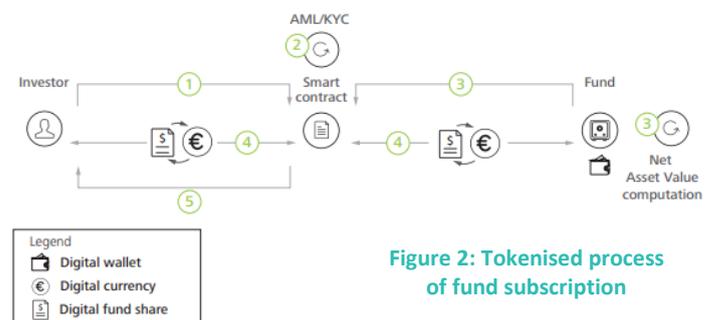
4. Administration

Another operational difference which may make tokenised funds attractive to investors is the ability to trade 24 hours a day, 365 days a year. The DLT enables no wait time and instant settlements (discussed further below) due to the lack of reliance on humans to transact or implement processes. This allows an investor to effectively deal at their own convenience.

Figures 1 and 2¹ showcase the difference in fund subscription process undertaken traditionally, with the need for intermediaries, as compared to by blockchain.



Settlements in the traditional investment fund ecosystem can take a significant amount of time, with some transactions taking approximately a week to settle. Blockchain technology significantly reduces transaction times, through its capability of settling transactions instantaneously (i.e. within minutes, or even seconds). Additionally, the instantaneous nature of transaction settlements will remove the risk that a counterparty is not able to meet its obligations. There will be efficiency gains through the transfer of value without the need for trusted centralised intermediaries and/or through the efficient automation of processes, resulting in faster, potentially cheaper and frictionless transactions driven by disintermediation and automation.



¹ 'Impacts of the Blockchain on fund distribution', Deloitte

(https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu_impact-blockchain-fund-distribution.pdf) accessed 30 November 2022

Information relating to the tokenised fund could be stored in the token, which could be in relation ESG data or any relevant information for investors such as the underlying portfolio data or further information relating to the fund, such as its Prospectus. DLT can also be used to facilitate investor engagement such as voting.

5. Security

Tokenised funds have the potential to transform the roles of different firms and organisations that would previously be considered essential participants in traditional fund management. Some intermediaries may face changes to their roles if fund transactions and other activities can be automated. In some ways this could enhance operational resilience by having fewer organisations involved in tokenised fund management, however there are some pertinent issues to discuss.

A key concept behind blockchain is decentralisation. Blockchain uses asymmetric cryptography, offering users control and ownership over their information and data. To access the records stored on a particular user, individuals require a private key. If the key is misplaced or destroyed, then access to the assets is permanently lost. A fund provider may be unable to remedy this, as the decentralised nature of the blockchain would be undermined if a centralised party were able to step in to recover lost keys. There is an increased risk of hacking associated with keys.

Having a physical share register, which traditional funds utilise, would also defeat the purpose of decentralisation. Regulators such as the FCA may be concerned with ensuring that retail investors do not lose any record of or means of access to their investments/tokens, which may then pose additional operational risk when considering the practical application of tokenised funds.

Another issue with the decentralised nature of DLT is accountability and liability. This is an area that is still unknown and likely to cause concern to the regulators and potential investors. Previously, if something were to go wrong, there was a clear party to go to for resolution or to make a claim against. In instances where DLT is being used, the question of who should be accountable – the fund managers, the coders – this all remains relatively unknown.

6. Cost differences between traditional funds and tokenised funds

The traditional fund system requires multiple intermediaries which results in processing and administrative costs. A common concern of investors and potential investors is the level of costs associated with the various required intermediaries in the current system, which drives up fees and can rule out investment in traditional funds as a viable option for certain investors. The use of blockchain removes the need for many of the fee-charging intermediaries. As DLT makes peer-to-peer transactions possible, it means that there may not necessarily be a need to engage intermediaries (for instance, custodian banks and clearers). This will likely reduce operational costs for participants and potentially open up investment opportunities for a wider audience (subject to laws and regulation). Reduced administrative and running costs may also encourage tokenised funds to offer smaller minimum investment levels, opening access to investment products to retail investors.

According to a study undertaken by Santander Innovations, banks would save **US \$20 billion** by using blockchain technology.

(Impacts of the Blockchain on fund distribution, *Deloitte*)

There is no doubt that tokenisation of investment funds will significantly reduce costs. The ability to automate certain processes such as KYC and AML can lower the associated costs of running the fund. Traditional funds are often reliant on cumbersome procedures to deal with these processes which requires manpower and time, whereas DLT uses mainly computing power, which is typically cheaper. Furthermore, the opportunity presented by the ability to code actions into the tokens is likely to continue to develop and will enable tokenised funds to evolve and further streamline processes pointing to a trajectory of increased savings for fund managers and investors alike. **Figure 3** outlines this explosive growth in the

tokenised market.² By the tokens being held on blockchain, the need to have paper records is removed, which promotes a more environmentally friendly approach.

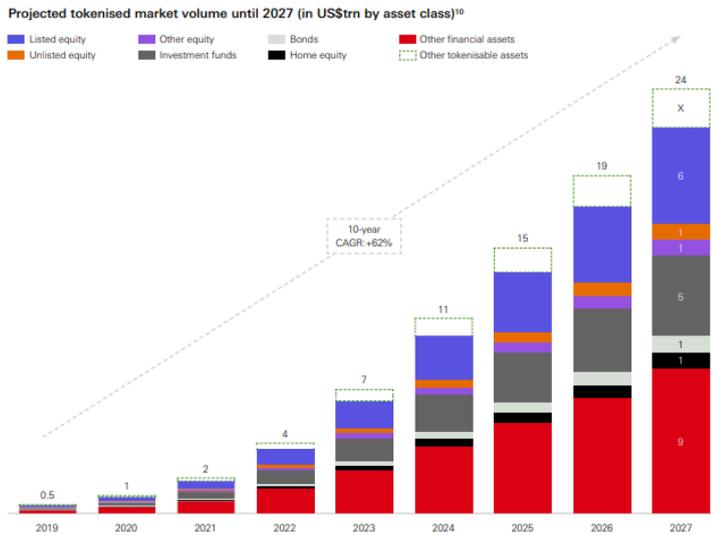


Figure 3: Projection of tokenised market volume until 2027

Along with that, any associated costs of managing the records and storing investor registers as ownership is represented using tokens and manual updates are eradicated (also removing the potential for any human errors requiring rectification, due to the nature of how records are added to the blockchain). Current compliance methods such as those related to financial crime tend to be paper based and manual, whereas tokenised funds can tie holdings and transactions to verified digital identities via the tokens securing the authenticity of the owner and also creating savings in respect of the management of the tokenised fund. The use of DLT removes any reconciliation work, which would

typically be conducted manually representing another stream of savings compared to traditional funds.

Fund tokenisation may reduce costs by decreasing certain types of risk exposure, for example, as trades can be settled instantaneously; the liquidity risk for the tokenised fund is greatly reduced. The liquidity created by tokenisation and the ability to settle instantaneously creates a strong secondary market which may reduce the costs of maintaining liquidity in the fund or borrowing to meet redemptions. Lower costs may mean that firms are able and are in fact more likely to issue securities (in this case, tokens) at a lower entry cost, making previously exclusive asset classes more accessible to ordinary (retail) investors where possible.

It is worth noting that at present information regarding likely figures or percentages of savings are unavailable as the use of DLT is still in infancy within this area. There may be additional costs relating to additional time spent on liaising with regulators, as the novel technology is still scrutinised and the regulatory framework under construction, but these costs should only be for the short term. The possibilities and use cases of the technology point to substantial savings in the future of running investment funds, and as the technology evolves, it is likely the process involved with running the fund will become more streamlined and the technology less expensive.

7. Closing statement

Tokenised funds are increasingly being seen by investors and fund managers alike as an attractive investment proposition and offering certain operational advantages to a traditional fund. Increased liquidity, ease of transferability and security are all significantly improved. Tokenisation of funds has great potential to transform the current status quo and solve many common operational problems.

It is important that there is sufficient appetite in the market both by investors and fund managers who may have reservations in using a blockchain-based system. Many of the perceived advantages of tokenised funds will only be felt if there is necessary demand, such as active participation in the secondary market, to make the process of tokenising viable.

Innovation often brings knowledge gaps and uncertainty with it, especially in the regulatory space which

² 'The 10x potential of tokenisation', HSBC (www.gmb.hsbc.com > insights > attachments) accessed 30 November 2022

may deter participants to entering the markets. Something to which the FCA has committed to helping, by supporting firms seeking clarity on the regulatory framework of these products.

The operational improvements and costs savings proposed by the use of tokenised funds are numerous and should result in a positive change in the market, for both investors and funds themselves. This potential disruptor and challenger to the traditional fund may well be the alternative that the market has been waiting for.



Tokenised funds series

This paper discussed the operational differences between traditional and tokenised funds and the cost implications for both models. Although this is the final paper in the series we are still keen to hear from interested members – contact us at john.allan@theia.org



Sam Robinson

Partner
Financial Services Regulation
T +44 20 7524 6836
E sam.robinson@cms-cmno.com



Yasmin Johal

Associate
Financial Services Regulation
T +44 20 7524 2623
E yasmin.johal@cms-cmno.com



Christopher Luck

Partner
Indirect Funds and Real Assets
T +44 20 7524 6294
E chris.luck@cms-cmno.com



Aidan Campbell

Partner
Regulated Funds
T +44 141 304 6112
E aidan.campbell@cms-cmno.com



Charles Kerrigan

Partner
Banking & Finance
T +44 20 7367 3437
E charles.kerrigan@cms-cmno.com



John Finnemore

Partner
Corporate
T +44 20 7524 6432
E john.finnemore@cms-cmno.com



Kushal Gandhi

Partner
Litigation
T +44 20 7367 2664
E kushal.gahdhi@cms-cmno.com



Stephen Hignett

Partner
Corporate
T +44 20 7067 3397
E stephen.hignett@cms-cmno.com



Duncan Turner

Partner
TMIC
T +44 131 200 7669
E duncan.turner@cms-cmno.com



Gemma Hall

Associate
Corporate
T 44 20 7367 3755
E gemma.hall@cms-cmno.com



The Investment Association

Camomile Court, 23 Camomile Street, London, EC3A 7LL

www.theia.org

Innovation and Operations Unit

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