BACK TO BASICS – DIGITALISATION AND TOKENISATION FOR FUNDS

Funds and their managers are increasingly looking ahead to the future and how technology can be applied to their business and operations. This includes digitalisation of the data they use, the use of blockchain technology for supporting their activities, and innovation for existing and new products such as tokenisation. These are explained further in this briefing.

WHAT IS DLT?

You may have heard of blockchain. It is relevant to funds and their managers because information can be digitalised and transferred, stored, or managed on a blockchain (a type of distributed ledger technology ("**DLT**")). For example, DLT is a digital ledger which can record transactions. The transactions and their details are recorded in multiple places at the same time by different people.

WHAT ARE TOKENS?

When a crypto-asset is recorded on DLT, it is tokenised. It represents certain rights created by the relevant tokens. Initial coin offerings (**"ICOs"**) for crypto currencies are perhaps the best known. These forms of crypto asset are not a currency as such or a representation of a particular asset but a virtual creation of rights in a digital form. As we discuss below, it is also possible to create tokens for other purposes including security tokens to represent interests in a fund or company.

WHAT ARE THE BENEFITS OF DLT AND TOKENS?

There are various potential benefits:

- **Operational efficiency**: The application of DLT removes duplicative reconciliations and automates processes. This results in faster, cheaper, and frictionless transactions.
- **Data integrity**: DLT allows identical data sets to be shared across various parties on a transparent and real-time basis. This guarantees the integrity of data across participants and reduces the need for duplicative record-keeping and reconciliation across entities.
- **KYC & AML**: Compliance, regulation, and governance can be embedded into a token itself or the underlying protocol to an asset through a tailor-made programme using DLT. This reduces the length and complexity of KYC and AML processes.
- **Improved accessibility**: A tokenised fund can be accessed directly via a network node which essentially replaces the online account or other non-digital access channels that exist in traditional funds. The provision of this real-time access and self-servicing produces greater efficiency through the chain.
- **Speed of settlement**: It is possible for a tokenised fund to facilitate T+0 settlement for both subscribing and redeeming investors, depending on the underlying assets contained within the fund. Current fund logistics are typically wedded to a T+3 settlement cycle.

- **Broader investment base**: Reduced minimum investment levels and fewer other hurdles to take part in tokenised funds could make such funds a viable investment choice for a broader audience.
- **Cost efficiency**: DLT can enable larger investors with the technical capability to invest with less friction and cost. Over time, this could make investment smoother and more accessible.
- **Transferability**: By transforming fund units/shares into virtual tokens, investors in tokenised funds can enter traditional investments with the additional ability to trade tokens more easily in a secondary market. This could attract more investors to tokenised funds and enable more investment into start-ups and other businesses.
- **Transparency**: A token holder's rights and obligations can be embedded into a security token along with a unique and immutable record of ownership. This will make transactions more transparent, as all parties involved can understand the rights and obligations of each other and the ownership history of tokens.
- **Information.** A token can also be used to provide information to investors such as financial and ESG reporting and for investor engagement such as for voting.

MORE ABOUT SECURITY TOKENS

Security tokens are most likely to be relevant for tokenising fund products and interests. Tokens which represent traditional assets such as shares, debt, or units in a fund are issued through an STO. The security token in turn represents the specific asset or a right to it. An example of this would be participation in an investment fund. Tokenisation can be applied to financial instruments such as shares and bonds as well as tangible assets such as real estate, revenue streams and intellectual property.

WHAT ARE TOKENISED FUNDS?

A tokenised fund uses code to mimic the functionalities of a traditional fund and replaces shares or units with tokens. The actual fund retains its existing form and structure but tokens are created representing the interests in it. Shares or units in the fund are digitally represented and can be traded and recorded on a distributed ledger. Such funds may also be known as a digital fund or a blockchain-traded fund ("**BTF**").

HOW DO TOKENISED FUNDS DIFFER FROM TRADITIONAL FUNDS?

While not substantial, there are some differences between investing in a traditional fund and owning tokens that represent shares or units in a tokenised fund:

- **Costs**: In a tokenised fund, ownership is represented using a token. This can greatly reduce the costs associated with maintaining investor registers.
- **Valuation**: The valuation of both traditional and tokenised funds is determined by a valuation method such as their net asset value ("**NAV**"). However, "NAV per token" rather than "NAV per share" would be the relevant calculation for tokenised funds. This would be quantified by dividing the NAV by the number of outstanding tokens.
- **Shareholdings**: Unlike a traditional fund, a tokenised fund issues tokens instead of shares. The DLT ledger maintains a record of tokens in issue and updates as transactions occur on the network. There is no central shareholder register and the distributed nature of the ledger enables participants to see their holdings in real time.

- **Parties**: The parties in traditional and tokenised funds are relatively similar. However, in a tokenised fund there will need to be a network operator and some existing roles will evolve. It is not necessary for the transfer agent to maintain a central shareholder register**.** The custodian will have additional responsibilities including holding investors' private keys (the mechanisms by which investors access the network), monitoring the process to approve transactions, and updating the ledger. The depositary and fund accountant do not need to reconcile their books and records to a shareholder register given that they have direct access to the DLT records via their own network node.
- **Accessibility**: The parties in a tokenised fund will have direct access to the DLT records via their own network node. A network node can be tailored to the requirements of the user.
- **Information storage:** A token can act as a database and thereby store additional information which might otherwise be unavailable with a traditional security. For example, a security token can indicate legal ownership and rights. It can also supply additional information such as ESG risks, AML & KYC. This can be used to measure the performance of the fund in line with its objectives and constitutional documents.

REGULATORY SCRUTINY

The European Commission, the UK regulator, the Financial Conduct Authority ("**FCA**"), and many other national regulators, are all moving to adapt to this new technology whilst at the same time protecting consumers and financial systems. The FCA, for example, takes a technology-neutral view on regulation. As such, the considerations that apply to tokenised funds are the same as those which apply to traditional funds.

POTENTIAL CHALLENGES WITH TOKENISED FUNDS

Tokenised funds face inevitable challenges:

- **Regulatory issues**: There may be cross-border regulatory issues to consider and uncertainty in various jurisdictions.
- **Legal status**: There is very little case law, specific legislation or regulation which addresses tokens and smart contracts. However, countries such as Luxembourg and Switzerland have been updating their laws.
- **Perceived AML & KYC risks**: Tokenisation must not be seen as linked to a high risk of fraud and fraudulent transactions, limited traceability of transactions, and inconsistency of AML and KYC procedures.
- **Evolution of roles**: Tokenisation makes it easier to trade with a direct counterparty to a transaction and is likely to reduce costs. Financial institutions will need to adapt and new participants will appear.
- **Market volatility**: Greater accessibility might result in investors making decisions without seeking expert advice or opinion.
- **Cyber and data security**: As with other technologies, there will always be the risk of cyber hacks and data security breaches.
- **Liability**: The decentralised nature of DLT raises questions regarding liability and accountability.

CONCLUSION

When the numerous benefits associated with the use of digitalisation and tokenisation of funds are balanced against the various challenges facing the area, a compelling argument can be made that the

traditional fund architecture looks set to change at an increasing pace. Importantly, there must be sufficient demand and market readiness leading to adoption for the benefits to be fully realised.

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