CALASTONE

TOKENISATION – A NEW CONCEPT IN INVESTING

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CONNECTING THE WORLD'S LARGEST COMMUNITY OF FUNDS

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INTRODUCTION

2019 was a difficult year for the asset management industry. Passive funds have been on the rise and active funds across the board have continued to suffer from massive outflows, with many investors fearing rising costs, lower returns and fund suspensions. The problem is set to become worse, as future investors are less likely to have enough capital to afford to invest into active funds. There is now a widespread demand for investment products that are better tailored to new investors, with lower minimum investment thresholds and lower fees and charges.

As well as the cost barrier, most investors, younger and older, have become accustomed to instantaneous, fully digital access to the services that they consume, often in conjunction with a more personalised experience. This contrasts with the complexity of conventional fund distribution channels and the slow and expensive settlement processes associated with them. Many newer investment platforms attempt to smooth over these issues but the benefit is usually only seen as better UI's with no genuine improvement to the speed and transparency of the investment process itself.

This all comes at a time where the likelihood of increased competition is becoming greater. Many experts argue that 'big techs' could take the opportunity to start developing alternative methods of collective investment based on a view that the mutual fund model is no longer fit for purpose, a move they could easily enable using their multiple customer connection points, deep pockets, and hugely scalable technology platforms. This threat is also being driven from the consumer side. People are turning to large tech players like Google and Amazon who are building end to end lifestyle solutions based on entertainment delivery, personal assistants, messaging, social media, diary organisation and access to news and opinion. It seems inevitable that corporate ambition and user appetite will demand that savings and investments become seamlessly integrated into this world. A model of this already exists in China where the WeChat app has become far more than a messaging application and now provides a range of services from a single application, a super app.

FULL DIGITALISATION

Given the challenges outlined, how can the investment management industry respond? Can lessons be learned from the success of crypto-asset platforms? The success of BitCoin led to the development of Ethereum, a more generic platform for new models of transacting, based on similar principles to BitCoin but with a flexible application layer using "smart contracts". Smart contracts allow the Ethereum blockchain to be programmed for multiple purposes, and one of the most successful uses of this capability has been the development of the concept of "tokens", which are the means by which Ethereum applications can share and manage value, as well as representing the product or services they provide. This has been so successful that there is now a de facto standard for tokens on Ethereum. Standardisation often leads to adoption and this has been very much the case with the Ethereum token model.

Why is this concept so potentially transformational? Imagine a world where an app that follows the standard could visualise and manage a customer's holding in a range of assets represented as tokens, a virtual portfolio in effect, and the purchase, sale, and settlement of these assets is instant and requires no reconciliation or manual effort. Such a model would also have no "distribution chain" and no intermediaries would be required. This is an incredibly compelling vision since, at a stroke, it removes almost all the elements of the current model that create cost, risk, and lack of transparency.

This model is now widely called tokenisation and could herald a fundamental shift in the investment landscape – one as important as the arrival of the first mutual funds in the 1920s.

Most agree that tokenisation is still at the conceptual stage and there is a long way to go before it enters the investment mainstream but could it be the answer the funds industry so desperately needs?

A NEW FRONTIER FOR INVESTMENT

With all the advantages we've seen, many would ask "When can we get started?". However, the more relevant question to ask is actually "How can we get there?". Tokenisation represents something so potentially transformational that a great deal of hype and misunderstanding is and will emerge around what it really is. So, let's consider some of the challenges that would lie along the path to the future we have described.

The model of tokenisation that has emerged from the Ethereum world is ideally based on a purely blockchain based measure of value. BitCoin, Ether, and various Ethereum tokens are examples of this. Currently there are many different assets that make up the totality of a present day mutual fund and most of these won't be managed on a blockchain. Existing prototypes and usages tend to be about cryptocurrency funds or attempts to tokenise singular real world assets like equities and cash. In fact, there is a level of confusion that exists where investment vehicles that are purely constructed of crypto currencies are conflated with tokenisation. Many examples of tokenisation are based on the tokenisation of fractional ownership of indivisible and expensive assets like property or artwork, which are again singular investments not collective ones.

A huge challenge to moving to a new model is tied to how successfully the tokenised view of an asset can be linked to underlying real world assets, but before we consider that challenge, let's consider what would be possible if it could be overcome.

Tokenisation could divide the ownership of an asset, or pool of assets, into tokens. If the real world components of a collective investment were tokenised then a mutual fund structure (such as a unit trust or SICAV) could be dispensed with as investors would hold a direct stake in the underlying assets. Tokens could also be exchanged as investors invest and divest, so that underlying real world transaction costs could be avoided.

Advocates see tokenisation as the ultimate expression of a digitised investment world. Theoretically tokenisation does not require DLT, however the two complement each other well and have been validated in the public blockchain space. Managed through DLT the major part of the trading and the entire post-trade process could be automated, making

for optimal efficiency. That could lead to big savings in transaction costs compared with today's complex processes for mutual funds. It would reduce not only the need for manual intervention but, potentially, the number of post-trade participants required in the administrative process.

There are a number of possible benefits for tokenisation:

- It has the potential to broaden the range of possibilities open to ordinary investors by making it easier to invest small sums. This could be a step-change in the shift towards inclusivity.
- It could be a more flexible basis for building bespoke portfolios – based on personal criteria or projected outcomes – of the kind currently restricted to wealthier investors.
- It could provide new transparency in the investment process: investors could see precisely what stocks, bonds or other assets they were invested in. This could also support the need for ESG investments.
- It could inject new liquidity into asset classes such as property or private equity which have hitherto been closed to all but the largest of investors.
- By digitising the end-to-end process, tokenisation could deliver faster deal execution and settlement and provide real-time pricing by operating secondary markets within and between the investment vehicles themselves. While buyers and sellers of mutual funds must currently wait for an end-of-day valuation, and sometimes longer, before they know what price they have achieved, investors in tokens would potentially be able to receive an instant confirmation.

TOKENISATION IN PRACTICE

So, how would tokenisation work as a new model for collective investment? There are several conceivable ways and there are advantages and disadvantages to each. There are many more models no doubt possible but not yet conceived of as well, however at this point it is helpful to consider one model to help understand some of the practicalities.

An example scenario would begin with an investment manager defining their strategy – high income or long-term growth for example, each with its own defined risk/return profile – and putting in place an appropriate pool of assets under the safe-keeping of a third-party custodian. The manager then allocates a matching value of small-denomination tokens to the investors. In contrast to units in a mutual fund, the tokens represent a direct stake in the underlying pool of securities and there is no need for a fund wrapper.

A new type of technology platform would need to be created to enable this. Utilising technologies like DLT, the tokens are held in a single, shareable register, accessible by all the participants in the trading process – investor, independent financial adviser/distributor, investment platform and custodian. The platform would also provide the links and integrations into the true primary systems of record for the various assets such as national CSD's to ensure that the underlying assets are being managed appropriately based upon investment activity. For retail investors surfacing this all through token standards would allow integration into a number of apps already available.

Tokenisation opens the way to further cost eradication with the elimination of the fund structure and other post-trading processes. There is a strong need for something truly transformative and this could be hugely positive for asset managers' margins. It would also enable asset managers to focus on what they do best – research and execution. The right technology solution should take care of everything else.

The direct link between the token and the underlying investments could also introduce a new degree of transparency for investors. For the first time in a collective investment, investors would be able to see the underlying investments at a glance, giving them greater control over their investment decisions.

OPENING NEW OPPORTUNITIES

Whatever the concept may offer in democratising the collective investments markets, it does promise tantalising opportunities for opening up traditional institutional investments to a broader investor base.

Property is one such investment. This is especially the case when we take into account the recent troubles property funds have been going through, with the suspension one of the UK's largest property funds. Infrastructure is another investment that could work. Enthusiasts muse on the possibility of tokenising motorway toll revenues or the income from the next generation of nuclear power stations. Top-end property is another potential area of interest. Digitised book entry using DLT makes all of this financially practical.

There is an additional upside here. The very process of tokenising and creating a publicly tradable asset could be value-enhancing if it removed some of the discount traditionally associated with less liquid assets.

FROM CONCEPT TO REALITY

The technology is there to enable tokenisation and it could be the answer the industry needs.
The advent of blockchain, cryptocurrencies, and Ethereum tokens has prompted a fundamental reappraisal of how people and companies invest their money and whether they are really getting a fair deal. But obstacles to its adoption remain. There are still many unanswered questions. How accommodating will the regulators be? How concerned might they be that the 'advice gap' that exists in many countries could widen further if tokenisation encourages more small investors to commit the sort of sums that make any form of advice uneconomic? There is a regulatory void at present. When it is filled, it will need alignment between countries if tokenisation is to fulfil its potential.

There are practical issues too. Many asset managers' legacy systems and accounting processes could prove a stumbling block to adoption. The benefits will only flow if dual systems and processes are avoided. In many ways there is a more traditional systems integration and reconciliation problem to be solved by a platform offering tokenisation of real world assets.
How are the tokens assured of being underpinned by real world assets? How are the values of underlying assets reflected in token value? Can lessons be learned from similar products such as ETF's and existing attempts to fractionalise ownership? Lastly, how can a future platform position itself as a pathway to an end state where potentially most or all assets, including cash, are natively managed through a blockchain style system. Such a scenario would seem the natural endpoint of the journey, but many things will need to change before that point is in sight.

One measure of the momentum and likelihood of success a new technology or business model may achieve is when attempts are made to create a standard for it. Standardisation is a huge enabler for adoption as it gives comfort to users that they won't be left behind if they pick the wrong platform or version and facilitates widespread adoption. A number of technology organisations have come together to create the "Token Taxonomy Initiative" (TTI) in an attempt to standardise a way of reasoning about tokens. In this paper we have mostly considered tokens as representations of value or obligation in financial services but as the TTI shows the concept of tokens can be taken beyond just monetary uses to represent many situations relating to ownership and obligation. Perhaps tokenisation as a mechanism and a concept will be the killer application for blockchain and DLT technology. Perhaps it may even outgrow its beginnings in the DLT world to become a defacto standard for transacting on the Internet and become as ubiquitous as the world wide web has become as the standard for information sharing.

In summary, tokenisation has the potential to open up a new world of investment, facilitating micro-investment for the many, cutting costs for both investors and asset managers, and providing effective access to what are currently illiquid asset classes. The technology is certainly here and Calastone is engaged with a number of clients globally to consider tokenisation's potential. It may take time to become reality, but the chances are that one successful application will unlock a tidal wave of change.

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