

THE  
INVESTMENT  
ASSOCIATION

# UK FUND TOKENISATION: A BLUEPRINT FOR IMPLEMENTATION

Interim Report from the Technology Working Group  
to the Asset Management Taskforce

November 2023



## ABOUT THE INVESTMENT ASSOCIATION (IA):

The Investment Association champions UK investment management, supporting British savers, investors and businesses. Our 250 members manage £8.8 trillion of assets and the investment management industry supports 126,400 jobs across the UK.

Our mission is to make investment better. Better for clients, so they achieve their financial goals. Better for companies, so they get the capital they need to grow. And better for the economy, so everyone prospers.

Our purpose is to ensure investment managers are in the best possible position to:

- Build people's resilience to financial adversity
- Help people achieve their financial aspirations
- Enable people to maintain a decent standard of living as they grow older
- Contribute to economic growth through the efficient allocation of capital.

The money our members manage is in a wide variety of investment vehicles including authorised investment funds, pension funds and stocks and shares ISAs.

The UK is the second largest investment management centre in the world, after the US and manages 37% of all assets managed in Europe.

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## FOREWORD BY SARAH PRITCHARD

EXECUTIVE DIRECTOR, MARKETS AND INTERNATIONAL,  
FINANCIAL CONDUCT AUTHORITY



The digitalisation of financial services is changing how consumers make decisions and markets operate. At the FCA we are committed to taking forward work to strengthen the UK's position in global wholesale markets – and to embrace the opportunities presented by new technology and innovation. To that end, we welcome this report on fund tokenisation from the Technology Working Group under the Asset Management Taskforce, which the FCA is an observer of and has supported, and which forms the first stage of a pioneering workstream to identify and articulate the benefits of innovation in technology for investors and the wider asset management industry.

The group has identified a limited blueprint model for tokenisation, which firms in the UK could follow to develop and pilot their own use cases. The approach offers potential improved operational efficiencies, primarily through the automation of certain back-office functions.

When we asked earlier this year for feedback on the areas that should gain regulatory focus in the next few years via our asset management discussion paper – external stakeholders were clear that there should be regulatory focus to support technological innovation so that markets can adapt and innovate to achieve long-term improvements in the way that markets and their participants function, while ensuring appropriate levels of consumer protection.

I am pleased that we are already doing so via this work, which has concluded that there are no significant regulatory barriers to adoption in the context of industry's blueprint model for tokenisation. Detailed work has been done to assess potential barriers across our Collective Investment Schemes sourcebook (COLL), Investment Funds sourcebook (FUND) and Client Assets Sourcebook (CASS), with no significant hurdles identified. The use of blockchain networks, a type of distributed ledger technology in the operation and administration of collective investment schemes is a clear opportunity in this space that we are open to exploring further.

This is an exciting milestone and paves the way for exploring more transformative use cases in the future. We want to support firms to implement technological solutions which enhance and strengthen the UK's asset management industry, while addressing risks and potential harms. However, embracing this technology in a way that works for our markets must be a joint effort. We need input and co-operation from across industry, as it's imperative that we work together to make the UK a global hub for innovation.

We are pleased to have collaborated with a wide range of participants in this work. I look forward to continuing our engagement on the next phases of work.

## FOREWORD BY MICHELLE SCRIMGEOUR

WORKING GROUP CHAIR AND CHIEF EXECUTIVE OFFICER  
AT LEGAL & GENERAL INVESTMENT MANAGEMENT



Our industry is in many ways unrecognisable to when I first started my career. The increasing sophistication of technology has been one of the driving forces and I firmly believe that technology's transformational role will increase in prominence from here.

Therefore, it was an honour to be appointed Chair of the Technology Working Group of the UK Government's Asset Management Taskforce. It has been a real pleasure to see the breadth and depth of expertise the UK has to offer in adopting and leveraging the technology that could underpin the next generation of asset management.

Together, artificial intelligence (AI) and distributed ledger technology (DLT) present a sizeable opportunity and shift for the UK financial services industry. Fund tokenisation, in particular, has received much attention given its potential to revolutionise how we operate. Amongst other things it could enable greater liquidity, the creation of more bespoke portfolios and significantly enhanced risk management. Throughout this report, we consider the scale and nature of the opportunity that fund tokenisation and DLT offer the UK.

This opportunity is real. UK Finance recently estimated that digital assets could represent as much as 10% of the global market by 2030, equivalent to a value of between \$4-\$5 trillion<sup>1</sup>. We are not talking here about unbacked and unregulated cryptocurrencies, but rather the application of DLT to mainstream asset classes, namely equities and bonds.

As with all opportunities, this one must be seized, and we cannot be complacent in how we do so.

The good news is that the UK is starting from a strong place. Already a global leader in asset management, the scale and sophistication of our market is second to none. Embracing new technology is key to providing an ever-greater range of products and services; failing to do so would risk the UK falling behind other countries. We can put ourselves at the forefront of this transformative trend, but we must ensure we adapt and evolve as an industry. We undoubtedly have the talent and resources.

This report is the result of many people's hard work. I would like to highlight particularly the successful collaboration between colleagues from the investment management industry, the Investment Association, the FCA and HM Treasury. There are too many to name here, but my thanks go out to everyone who offered their time, expertise, and insights to contribute to this report. The partnership between all those involved has created strong momentum for change, which is essential to deliver the innovation we need.

# EXECUTIVE SUMMARY

This report from the Technology Working Group (the Group) of the Asset Management Taskforce details the first phase of its work on harnessing the potential of innovative technologies for the UK asset management industry.

This report focuses on the application of distributed ledger technology (DLT) through investment fund tokenisation, which presents a strategic opportunity to improve efficiency, transparency, and the international competitiveness of the UK's investment sector.

We outline a shared vision for a future funds industry whose full value chain is operated on DLT, utilising digital forms of money and identity, providing synergies across the funds industry by linking individual investors at one end with the investible assets at the other, and operating on a robust settlement layer that is secure, trustworthy, and capable of being decentralised.

Through close engagement with HM Treasury (HMT) and the Financial Conduct Authority (FCA), the Group has developed a blueprint for implementing the tokenisation of UK investment funds, which reconciles the Group's shared vision with the practical challenges that must be overcome to make it a reality.

This blueprint recommends a staged approach to fund tokenisation, starting with a baseline model that could be used within the existing legal and regulatory framework, and progressing to more advanced stages over time. **The baseline – or 'stage one' – model establishes the infrastructure for fund tokenisation in the UK funds market.**

Future stages may require legislative or regulatory rule changes and may also depend on other developments in the wider technological environment, such as digital forms of money. The industry is invited to help detail the shape of these further stages as part of the second phase of work in late 2023.

The collaboration between the industry and the authorities has delivered this step change to investment fund innovation: enabling the tokenisation of domestic funds indicates that the UK is open to new ideas and helps to ensure that investors have highly efficient vehicles available to them for their long-term investment needs in the 21st century.

## SUMMARY OF RECOMMENDATIONS

**Utilising Stage One: Industry should progress towards the full investment value chain operating on DLT via a series of incremental stages. The first stage is defined within the report. To fully utilise this first stage, the Group has considered three items:**

### 1. Regulatory certainty for UK fund tokenisation

Models of fund tokenisation that follow the baseline – or 'stage one' – characteristics set out in section two of the report should be capable of complying with the existing legal and regulatory framework.

### 2. Foster DLT innovation across UK investment management industry

The IA will act as a conduit between the industry, FCA and HMT to progress future stages of fund tokenisation, demonstrate incremental delivery and help firms engage with relevant officials | Responsibility: IA | Timeframe: 3 months & ongoing

The IA will work with relevant stakeholders to promote industry standards and encourage an open market based upon interoperability and avoiding fragmentation | IA | 3-18 months

### 3. Money Laundering Regulations Registration Process

While the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 (MLRs) are made by government under legislation, the FCA is exploring whether it could more quickly determine MLR registration applications for firms already authorised by the FCA to carry out regulated financial services activities, where there is a lower risk of harm and where the FCA has evidence of strong control frameworks and non-adverse regulatory histories | FCA | 3-6 months

**Utilising Future Stages: Industry should then identify the prioritisation and characteristics of future stages and work with the UK authorities to implement them. In being able to utilise these future stages, the Group recommends:**

#### 4. Industry to develop the details of further stages of fund tokenisation

Industry to develop the details of further stages of fund tokenisation | Industry | 3 months+

Once these further stages are detailed, industry to work with FCA to consider impacts on Handbook rules & with HMT to consider impacts on legislation | FCA & HMT | 9-12 months

#### 5. Availability of digital forms of money to settle transactions

Industry to decide upon the optimal form of digital money for fund settlement | Industry | 1-2 years

Industry to explore the possibility of leveraging the Bank of England's work on Synchronisation to enable wider industry access to the Real-Time Gross Settlement service and enable funds settlement in digital central bank money | Industry | 1-2 years

#### 6. Legal considerations for investible assets

The ability of investment funds to hold tokenised versions of mainstream assets may be assisted by legal clarification.

The Group recommends that industry partners work with HMT to identify barriers in legislation for holding digital investible assets, and then to enable necessary legislative change, potentially through the Digital Securities Sandbox or another sandbox | HMT & Industry | 6-12 months

#### 7. Central Securities Depository requirements and evolution of responsibilities

Holding a digital security via a traditional central securities depository may not be an optimal process, but one that could be addressed via the Treasury's Digital Securities Sandbox.

Firms to express interest to participate in HMT Digital Securities Sandbox | Firms | 3-9 months

#### 8. Availability of digital identity

The group recommends that the government support building awareness of the digital identity legal framework set out in the Data Protection and Digital Information Bill, including the trust framework, and encourage industry adoption | HM Government | 9-24 months.

#### 9. Availability of Banking Services

The group recommends that HMT consider whether further action is needed on access to business accounts | HMT | 1-2 years



# 1. CONTEXT AND BACKGROUND

This report is in three parts:

- 1. Context and background** – the rationale for why fund tokenisation is so important for the UK investment management industry, including examples of how progress has been made in other jurisdictions;
- 2. A Shared Vision** – the long-term aim for an investment fund value chain based on DLT;
- 3. The Blueprint for Implementation** – the items that industry, regulators and government can progress to move the UK towards that vision.

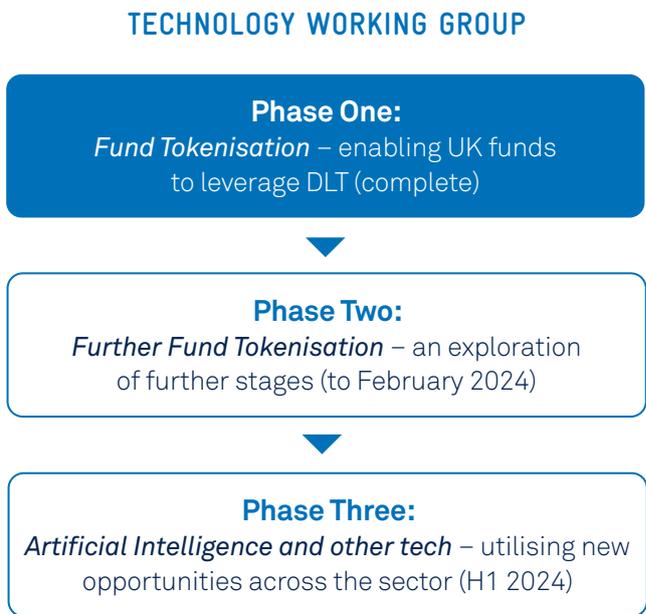
There is increasing recognition that we are entering a period of accelerating, potentially unprecedented, technological advance. Harnessing that decisively in the United Kingdom (UK) will contribute to two key objectives. First to enable better products, services and business growth, helping millions of domestic investors and the UK economy. Second, as the sector is so interconnected to the global economy, it will help to drive international competitiveness as part of the wider UK financial services cluster.



## THE TECHNOLOGY WORKING GROUP

Recognising this, the Asset Management Taskforce (the Taskforce), the Economic Secretary to the Treasury’s influential forum convening senior leadership from the industry and the FCA, instructed a new Technology Working Group (the Group) to identify how the UK investment management industry can harness the potential of innovative new technologies for the UK asset management industry. The Group was tasked with articulating the benefits of increased innovation in technology for investors and industry, and identifying the main opportunities presented by technologies such as DLT and generative AI, areas where strategic technology shifts were creating new ambitious horizons for industry. The Group’s membership was drawn from Taskforce members, government and the regulator, and wider non-asset management stakeholders.

**FIGURE 1: WORK SCHEDULE OF THE GROUP WITH INDICATIVE TIMINGS**



As a 'task-and-finish' Group intended to run on a time-limited basis, it began by identifying a set of underpinning principles (the Principles) to ensure that the conclusions and proposals it produced were applicable to the whole investment management sector and provided tangible outcomes. The Principles were that the proposals of the Group should:

1. have a core relevance to the delivery of investment management services to both domestic and international investors;
2. offer opportunities to the widest possible range of firms across the sector, rather than focusing on any specific type of firm, product type, asset class, or customer group;
3. be accompanied by a roadmap for delivery, clearly identifying any policy or regulatory change necessary; and
4. seek to facilitate competitiveness and efficiency within the sector, recognising that some aspects of technological change will be proprietary and subject to competitive advantage for a firm or group of firms.

The Group divided its priorities into three phases of work. This initial report is the product of phase one and focuses on the application of DLT and associated concepts to the infrastructure of UK investment funds – **fund tokenisation** (see box). As well as monitoring delivery progress against phase one objectives, the other phases of work are scheduled to focus on other innovative technologies including AI, and will similarly report back to the Taskforce.

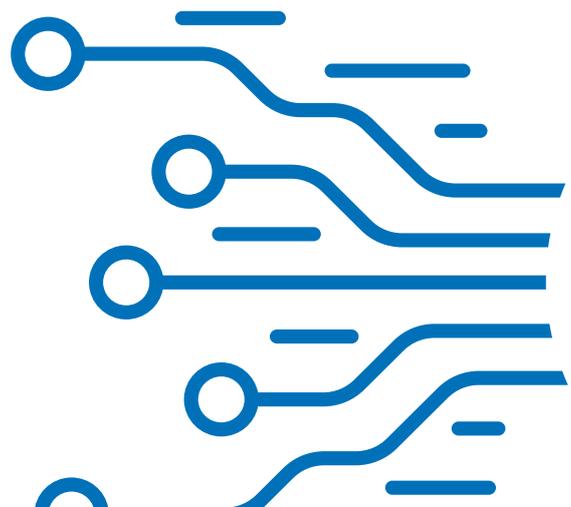
## What are tokenised funds?

Sometimes also known as 'digital funds', these funds issue tokenised shares or units to represent the investor's interest in them and are generally traded and recorded on a distributed ledger rather than a traditional system of records.

Tokenisation is sometimes seen as a spectrum, and fund tokenisation is no different, with the precise definition differing depending on a number of variables. These include: the underlying type of blockchain technology utilised in the model; the extent to which the end-to-end transactional and record keeping processes are brought on-chain and the related extent of reliance upon traditional fund servicing functions; the extent to which the ledger is public and permissioned; and the distribution channels of the fund that are to be catered for.

Ultimately, tokenised funds are intended to provide a way to interact with increasingly digitalised capital markets, where both traditional and potentially new forms of asset class are issued and traded using DLT.

Examples are provided in this report from other jurisdictions which have different features. Section 2, below, provides the specific features of a target state UK tokenised fund. For more background see the IA's member resources<sup>2</sup> page – [theia.org/fundoperations/tokenisedfunds](https://theia.org/fundoperations/tokenisedfunds)



## FUND TOKENISATION

Within the investment management industry, the discussion of the relevant applications of tokenisation has been ongoing for several years, with numerous publications, pilots, proofs of concept, industry consortia and fintech interest via the Investment Association's (IA) Engine<sup>3</sup> innovation hub. However, progress has been slow with a range of hurdles including a lack of legal and regulatory certainty.

More recently, there has been significant activity by funds in other jurisdictions (see boxes), and firms see an opportunity for the UK market. The international nature of the UK industry – almost half of the £8.8trn in assets managed in the UK are for international clients, with international firms playing a major role in the UK sector<sup>4</sup> – means we are uniquely positioned to not only build on the experience from elsewhere but also take a leadership position in the continued development of this important ecosystem.

In 2022, the IA explicitly advocated for the UK to have the ability to deploy fund tokenisation as an evolutionary improvement to the nature of the fund, and as the minimum that should be achieved from the technology. As part of its 'Investment Fund 3.0' innovation concept<sup>5</sup>, the IA also looked at a more transformative shift which could enable a more interactive and participatory experience for investors.

### Fund tokenisation in Europe

There are several models for fund tokenisation in continental Europe, with much experimentation taking place and various models emerging to cater for different distribution models. The nature of domestic rules has driven some of the local characteristics of digital asset technology, albeit the EU DLT Pilot regime seeks to achieve some consistency across the bloc.

In recent months there has been a large volume of activity. Private bank-owned Metzler Asset Management has issued tokens for a single share class of its **German**-domiciled Sustainable Growth fund in a controlled distribution pilot<sup>6</sup>, which took place on a public chain albeit with a restricted participant list. Germany has also legislated for digital securities to exist natively on-chain, without the need for a central securities depository, and for funds to hold tokenised assets as well as funds to be tokenised at unit level.

Archax created a tokenised representation of its interests in the abrden **Luxembourg**-domiciled money market fund<sup>7</sup> (MMF) in a further stage of their joint project. The local regulator, the CSSF, has also explicitly permitted firms to utilise DLT for their fund register.

In **France**, Generali's fund range is now available digitally on a DLT platform<sup>8</sup>, joining a large group of other fund firms' listings for investors to select from. There are also examples of experimentation and pilots in **Spain** and **Italy**<sup>9</sup>.

## Fund tokenisation in the United States

US funds tend to utilise public blockchains, something that other jurisdictions have largely avoided for privacy and control reasons to date. These funds publish a limited amount of information on the chain, using masking techniques, and rely on a traditional off-chain register for legal title to ownership, requiring daily reconciliation to ensure the registers remain aligned. Bespoke apps are provided to investors to enable servicing and trading facilities.

Examples of an increasing selection of US mutual funds that are now available for sale on-chain include the first mainstream tokenised fund, a Franklin Templeton MMF, which has recently been made available on a second public blockchain with restricted distribution<sup>10</sup>.

Hamilton Lane has a number of tokenised funds available, including a tokenised feeder for the off-chain Equity Opportunities fund, which is now available via Securitize on the Polygon chain. This feeder has reduced the typical minimum investment amounts for investors from an average of \$5m (for the direct fund) to \$20,000<sup>11</sup>.

WisdomTree's nine-strong 'digital fund' range has recently been made available via its Prime service<sup>12</sup>. These funds offer exposure to a variety of traditional and emerging asset classes such as fixed income, equities and commodities as well as cryptocurrencies.

## Fund tokenisation in Singapore

A key focus in Singapore has been the pursuit of open and interoperable networks<sup>13</sup>. While established firms have generally preferred private, permissioned chains, emerging firms and FinTechs are leveraging the distribution power of public, permissionless networks. Recognising this, the Monetary Authority of Singapore has sought to balance the benefits of ease of access provided by the former with the potential risks to financial stability and integrity of the latter through an ambitious programme of work.

Project Guardian, a joint initiative with the financial industry to test the feasibility of DLT applications<sup>14</sup> began in May 2022 and was recently expanded into further stages. The project has been praised for demonstrating strong ambition and as a unique example of close, real time industry collaboration.

The publication outlining the latest stages included details of a partnership between Schroders and Calastone on a tokenised investment vehicle, potentially improving the personalisation of products for retail and institutional investors, while simplifying day-to-day operational processing.

Since then, UBS has confirmed<sup>15</sup> a live pilot of its money market fund on a public blockchain. The native digital issuance aims to enhance fund distribution and facilitate improved secondary market trading of fund shares.

In October the FCA and other regulators announced that they were joining Project Guardian<sup>16</sup>. Among a wider list of objectives, according to MAS, this partnership will facilitate the development of common standards for the design of digital asset networks and market best practices across various jurisdictions<sup>17</sup>.

## CONNECTING WITH WIDER CRYPTOASSETS WORK

Clearly, there is a much wider set of considerations with respect to the digitalisation of capital markets and novel asset classes.

The Group believes that accelerating adoption will help the UK industry to remain competitive in the global context and, importantly, to interact efficiently with the international capital markets ecosystem which is increasingly focused on different use cases for DLT and tokenisation<sup>18</sup>. There is a small, but rapidly growing \$800m market in tokenised bonds in Europe alone<sup>19</sup> and the combined value of digital versions of mainstream assets is predicted to reach \$5tn by 2030<sup>20</sup>. When the sell-side implements securities tokenisation at scale, the buy-side must have the capabilities to engage with the development process and interoperate effectively with it.

HMT has recently published its proposed design for the first financial market infrastructure sandbox – the UK Digital Securities Sandbox (see box). This development, alongside the medium-term prospect of leveraging sources of digital money for on-chain settlement will provide a substantial opportunity for progress. Prospects for digital settlement include the Bank of England's (the Bank's) plans to widen the access routes for external entities to access central bank money<sup>21</sup>, other potential solutions such as the Regulated Liability Network<sup>22</sup> and Finality<sup>23</sup>, as well as regulated stablecoins.

On the legal front, useful detailed examinations by the UK Jurisdiction Taskforce<sup>24</sup> and the Law Commission<sup>25</sup> have provided a further impetus by enhancing confidence in the underpinning framework for digital assets.

While some of these developments are still in-flight, and tokenisation in other areas (such as equities and other investible assets) is dependent on further work, it is now the ideal time for the funds industry and the UK authorities to take advantage of the opportunity to establish the fund tokenisation infrastructure for the UK funds market.

The discussion of DLT and tokenisation is sometimes confused or conflated with cryptocurrencies and Non-Fungible Tokens (NFTs), given their origin in the digital asset technology itself. An investigation into the utilisation of cryptocurrencies, NFTs and other unbacked cryptoassets within investment portfolios is out of scope of this report. With a few exceptions, the investment management sector has taken a cautious approach to the adoption of unbacked cryptoassets as an investment class given a perception of risk and volatility, and several well-publicised recent incidents that have questioned the integrity of the broader market.

Tokenisation at the fund level simply seeks to leverage the benefits of the underlying technology and does not automatically provide such an exposure (unless the fund itself invests in unbacked cryptoassets). Utilising the technology and the concept of tokenisation is therefore distinct from becoming exposed to unbacked cryptoassets.

## The UK Digital Securities Sandbox

In July 2023, HMT announced its plans for the first UK financial market infrastructure sandbox, the Digital Securities Sandbox<sup>26</sup>, which aims to enable digital securities to be tested and ultimately adopted across financial markets. Through the Sandbox, industry participants will be able to set up financial market infrastructures that utilise digital asset technology, which can perform a number of activities in relation to digital securities under a temporarily modified legislative and regulatory framework.

The UK continues to be ranked as one of the most fintech-friendly countries globally. The UK authorities recognise that appropriate policy and regulation, accompanied by a clear allocation of supervisory responsibilities, can promote innovation. It gives innovators in companies of all sizes a clear framework within which to operate, setting high standards for business practice and giving investors the confidence to try new services and providers.

The Financial Services and Markets Act 2023 (FSMA23) provides HMT with powers to set up financial market infrastructure sandboxes via statutory instrument which is a significant benefit as it enables agile development based upon live activity.

Each statutory instrument laid before Parliament would provide the legal basis for each sandbox and for temporarily disapplying or modifying relevant legislation for participants. This means that a temporarily modified legislative framework can be put in place to facilitate digital assets without the need for a further Parliamentary Bill, which would take time.

The Sandbox will enable firms to set up and operate using innovative digital asset technology, performing the activities of a central securities depository and operating a trading venue, under a legislative and regulatory framework that has been temporarily modified to accommodate digital asset technology.

These activities will be performed in relation to existing security classes (which could either be digitally native issuances or digital representations of existing securities). Limits will be put in place for participating entities, which can be increased as progress is made. These limits will reflect the ability of a participating entity to meet requirements and manage risks.

The flexibility and the timing of the sandbox make it a potentially useful tool to explore the use of digital asset technology within the investment management sector. The proposals in the Sandbox design consultation refer briefly to tokenised units in funds, and any broader support and clarity it can provide around permitted uses of tokenisation are likely to aid industry adoption.

A key aspect of the financial market infrastructure sandbox powers is the ability to make permanent changes to legislation on the basis of what is learnt. The permanent changes themselves would be enabled by HMT laying a further statutory instrument before Parliament.

Importantly, these powers can be exercised before the end of a sandbox, to ensure there is no gap between that sandbox ending and the UK legislative framework being permanently modified (thereby avoiding a 'cliff edge' for participating entities). The regulators, including the FCA, will also be able to update rulebooks and standards in response to what is learned from a sandbox.

HMT intends to lay a statutory instrument before Parliament later this year to create the legal framework for the Digital Securities Sandbox. In parallel, the Bank and FCA will publish further guidance, consult on rule changes, and set out the application process. Potential applicants are encouraged to contact the regulators as soon as possible in order to discuss what activity they may want to conduct in the Sandbox.

## UK Cryptoassets Regulatory Framework

On 30 October 2023, HM Treasury published its response to the consultation on the future financial services regulatory framework for cryptoassets<sup>27</sup>.

HM Treasury's consultation adopted the definition of 'cryptoassets' used in FSMA23, namely:

*any cryptographically secured digital representation of value or contractual rights that—*

*(a) can be transferred, stored or traded electronically, and*

*(b) that uses technology supporting the recording or storage of data (which may include distributed ledger technology)*

This definition is drawn broadly and could in theory capture tokenised fund interests. However, there are two important points to note from the consultation response:

- First, the response notes that future financial services regulation of cryptoassets will apply to a particular subset of cryptoassets depending on what is being regulated and will accordingly use a narrower definition.
- Second, the response is clear that the government does not intend its future regime to capture

cryptoassets that are also specified investments that are already regulated. The response envisages that this category of cryptoasset will continue to be regulated in line with the relevant existing rules and regulations, subject to the caveat that the unique qualities of cryptoassets will likely require a small number of specific adjustments to those existing regimes, for instance around custody.

HM Treasury's response is clear that the fact a certain category of cryptoassets will not be subject to the future financial services regulatory regime for cryptoassets (i.e. the regime covered in the consultation) does not mean those same cryptoassets will not be subject to other regulatory regimes either now or in the future. This could include but is not limited to the financial promotions regime, applicable existing regulatory regimes for traditional securities or generally applicable areas of law such as in relation to anti-money laundering/counterterrorism financing or fraud (including the Money Laundering Regulations).

Industry will need to monitor developments in this area closely, but HM Treasury's response appears to offer reassurance to firms that the government recognises the distinction between tokenised versions of already-regulated specified investments and the wider category of cryptoassets such as Bitcoin.

## ROLE OF AI

There has been a significant level of interest in AI within society, business and governments in recent months<sup>28</sup>. The Group is convinced by the potential for significant business productivity gains from AI over the coming years but at this stage believes that there are more opportunities and momentum in tokenisation that can be leveraged, with highly relevant complementary interconnections with the sell-side and with the investor community.

It is likely that investment management-specific benefits of AI will further manifest once paired with DLT. AI offers decision-making capabilities while DLT facilitates real-time recording of economic activity.

When combined, these two technologies could enable trading, client engagement and compliance and oversight to be integrated efficiently. AI models in smart contracts could provide recommendations for investment or for executing transactions according to a specific set of events or thresholds, creating an economic layer for executing actions according to predefined instructions. AI-powered investment managers could leverage secure, decentralised, and completely transparent infrastructure, improving consumer-facing products.

The Group therefore plans to look at the application and risks of AI in phase three of its workplan.

## 2. A SHARED VISION

As outlined in section one, the Group see three key drivers that define a genuine opportunity for UK fund tokenisation that should be exploited urgently:

- An increasing appetite from firms to leverage the experience gained from work being done in other jurisdictions;
- A time-limited opportunity deriving from the UK authorities' complementary workstreams on future regulatory frameworks, the financial market infrastructure sandbox, and digital forms of money; and
- An ambition to interact more effectively with both the wider capital markets and investor communities.

### BENEFITS

There are tangible benefits available to investment funds, mainly relating to efficiency and speed.

- (i) A real-time record-keeping system shared across all parties servicing the fund could eliminate the need for participants to reconcile their data with a centralised register.** Currently, each party to the fund, such as the fund administrator, checks the

#### Quick look at potential benefits of fund tokenisation

- Simplification of books and records, including reconciliations
- Reduction in fund administration costs
- Quicker settlement and reduced temporary liquidity funding
- Potential for greater liquidity
- Automation driven by smart contracts
- Enhanced data disclosure
- Improved reporting capabilities including real-time access for regulators or distributors
- Access to a wider set of investment products by the injection of liquidity from secondary markets and reduced investment minimums
- Potential for increased use as collateral
- Improved processing of corporate actions through automation
- Hyper-personalisation of portfolios to address specific investor needs
- Improved transferability

accuracy of the data they hold with that held by other parties on a daily and sometimes intra-day basis, which collectively represents a significant level of activity and effort. If that were no longer necessary, investors should benefit from the resultant cost and speed efficiencies realised by the firms running and administering the fund through a transformed, digitally enabled back-office infrastructure.

- (ii) Once the settlement profile of the underlying assets is optimised, tokenised funds will be able to provide quicker settlement capabilities for unit transactions.** Currently, many open-ended funds operate their unit dealing process on a settlement basis (typically trade date +3 days) that is misaligned with the timing of the underlying asset settlement (T+2), to provide buffer time for the fund manager to react to cashflow requirements, and due to the constraints of the payment systems utilised and the requirements of intermediaries. This misalignment, usually by a day, presents challenges with cashflows that require temporary funding. With funds coming under increased pressure from reductions in capital market settlement timings, such as that scheduled in the US next year<sup>29</sup>, the ability of DLT to support settlement at a variety of speeds, including on a near-immediate basis, provides greater flexibility for funds as well as reducing credit and operational risks.

- (iii) The power of smart contracts enables scaling of automated processes, such as distributions or corporate actions, via executable code driven by pre-defined and logic-based workflows.** In the case of fund distributions, the pre-defined timetable provides the parameters for the smart contract to calculate and execute each investor's payment from or reinvestment into the fund, and issue customisable taxation and other reporting.

- (iv) Some members of the Group highlighted the benefits available, should institutional investors be permitted to post their tokens as collateral.** This would be particularly useful for tokens of funds in thinly traded markets, or at times of stress where investors may be forced to sell at reduced prices, as firms could temporarily post their interest in the fund to a counterparty rather than needing to redeem their position in the fund in order to raise cash. In recent weeks, a transaction of this type has been carried out, where money market fund tokens were used as collateral between bilateral derivatives counterparties<sup>30</sup>.

Greater data transparency may be available through embedding data within the tokens themselves, enabling a direct route for investor information disclosure. Details relating to the token holder's rights and obligations, performance and voting data, or anti-money laundering information could be provided as part of the token.

Other benefits and network effects may be identified when we move further forward and could include uses such as the ability for regulators to have access to the network for real-time supervision and data reporting, the easier transfer of ownership between platforms and engaged governance on portfolio assets via easier voting processes.

Tokenised funds are no longer a new concept and have grown in popularity in some of the major fund jurisdictions across the world such as the USA, Singapore, Luxembourg, Germany and France. The approaches differ between jurisdictions and within, in addition to innovation that differs on future and

backward compatibility. Fund tokenisation can therefore be seen as a spectrum, with various optional features able to be adjusted. The maximum benefits can only be realised at the end of the spectrum, but a more efficient funds market is achievable early on: much more efficient transaction and registry capabilities, more frequent trading opportunities via secondary markets, as well as a streamlined and automated fund servicing obligation.

## THE VISION

The Group has established a future state operating model for full fund tokenisation as a long-term goal. This 'shared vision' weighs up the varying options of tokenisation observed in other jurisdictions, the specific market characteristics of the UK, and consistency with the Group's Principles.

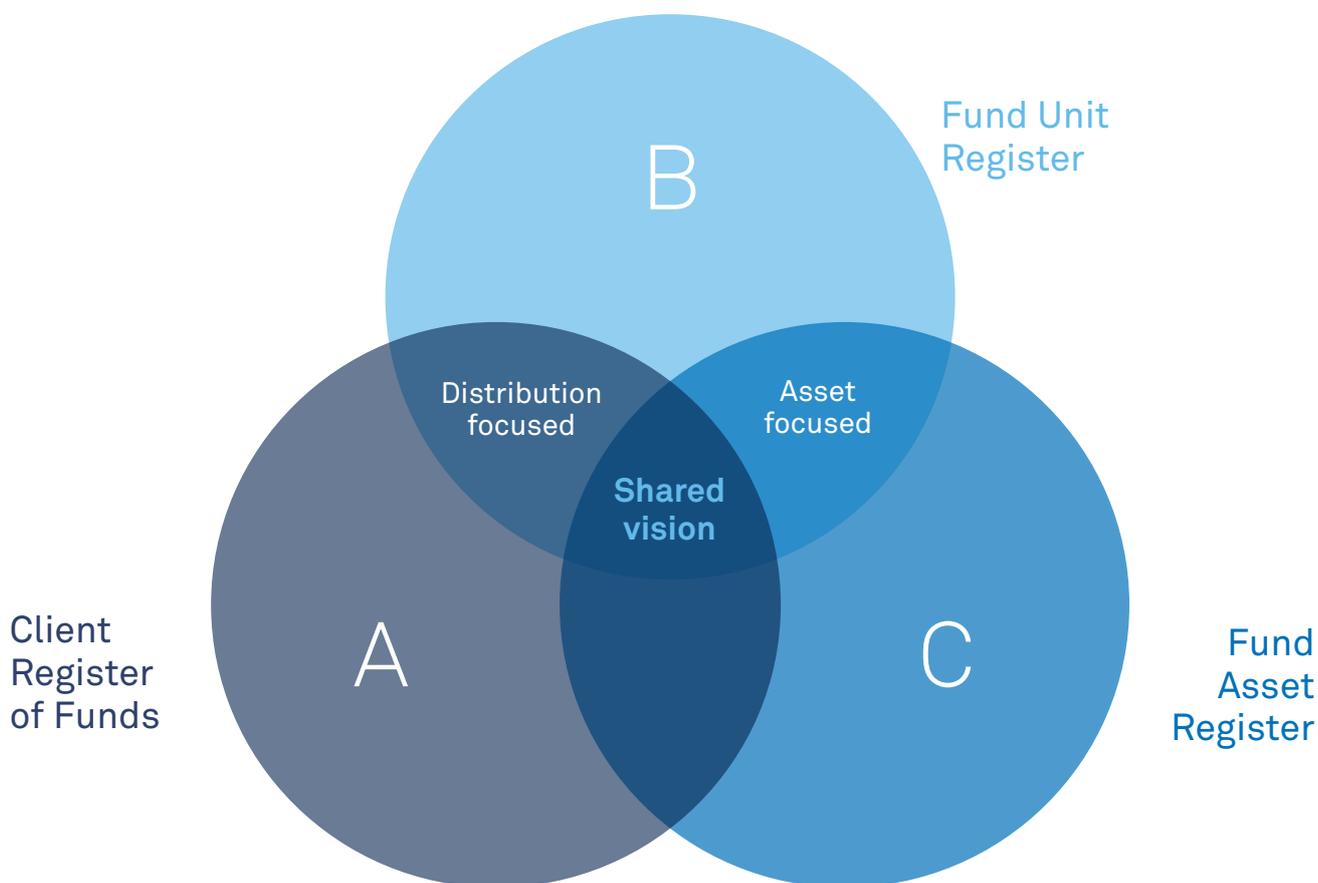
Within UK funds, there are three potential fund registers in scope:

Areas of opportunity	Description	Party responsible	Potential use cases
<b>Client register</b>	The register of end investors/beneficial owners	Investment platform/distributor	Creating additional choice for investors when selecting digital funds marketplaces
<b>Unit register</b>	The register of primary market investors/the platforms	Fund manager	Optimising fund inflows/outflows
<b>Asset register</b>	The register of securities making up the fund's portfolio	Custodian / Depositary	Optimising fund administration and potentially opening up new asset classes for investment

The Group agreed on a shared long-term vision of each of these registers being accessible on-chain. This provides the best commercial use case with synergies across the funds industry, linking individual investors at one end with the investible assets at the other and operating on a robust settlement layer that is secure, trustworthy, and capable of being decentralised.

While this shared vision is optimal in the long-term, most members of the Group agreed that it needed to be reconciled with 'the art of the possible' given that the required investment and resourcing may be significant. There was broad agreement that collaboration within the industry and with the authorities were essential to make progress.

**FIGURE 2: THE THREE REGISTERS APPLICABLE TO INVESTMENT FUNDS, WITH THE SHARED VISION SHOWN AT THE CENTRE**



## A STAGED APPROACH

Commercial, legal and technological issues will potentially challenge the achievement of this vision, both in the UK and globally. To identify and address these issues, and give firms the opportunity to pilot technological change, the Group agreed on a staged approach to implementing fund tokenisation in the UK, starting with a baseline model before adopting more complex approaches.

### STAGE ONE CHARACTERISTICS

The first phase of the Group's work has focused on the unit register as an achievable objective that will enable industry to progress in the short term and provide forward momentum. In this scenario, the only changes relative to a typical UK investment fund operating today are in the deployment of DLT in the registry and transaction functions. A private, permissioned chain would act as the master record for the fund unit register. In other words, the fund would be highly recognisable and consistent with mainstream funds that exist today, while utilising DLT for sales and redemption transactions and acting as the register of holders.

As a baseline, a 'stage one' tokenised investment fund (which could be a new or a pre-existing fund) or share class(es) of an otherwise off-chain fund, would have the following characteristics:

- **Authorised fund**

The fund would be established in the UK. It would be FCA authorised and in scope of the legal and regulatory regimes in line with existing industry norms. The current legal and regulatory roles of the parties to the fund remain the same e.g., authorised fund manager, depository, custodian etc.

- **Holds traditional assets**

The investment portfolio would be made up of mainstream investment assets held by a custodian, such as equities, bonds and the like, consistent with existing UK authorised funds. For example, despite the use of DLT, it would not hold cryptocurrencies.

- **Off-chain, usual cycle settlement**

Settlement of transactions in the units of the fund would be carried out as they are today (i.e., purchase from / redemption by the manager).

Fund settlement is entirely off-chain, with no use of any forms of digital money, and on the same timescales as a typical UK fund (i.e., T+2/3). The payments records will need to interact effectively with the unit register to keep a track of failed or overdue payments and be compliant with the existing client money requirements in CASS in respect of designated investment business.



- **Private, permissioned chain**

Access to the network will need to be permissioned and tightly controlled to ensure that all participants are identifiable and have a legitimate interest, with data sharing control as appropriate. The parties to the network would have shared visibility of the (relevant parts of the) register without needing to maintain their own individual records.

- **Fund valuation**

The fund would continue to provide a valuation point on a daily basis or on another timescale consistent with existing regulation and market practice. Intra-day/real-time valuation is not in the scope of this stage.

- **Control over the register**

The traditional fund register would be replaced by DLT records. Firms would need to be able to demonstrate that they are able to exercise control over the register by having the ability to execute one-sided transactions outside of the consensus mechanism or to prevent transactions where required<sup>31</sup>.

- **Future-proof**

As far as possible, developments under this scenario should not restrict future innovation or interoperability. This should be readily achievable given the limited extent of modification to the operating model under this stage and the lack of formal rule change.

As part of the development of this report, the FCA and firms have not identified any obvious or significant barriers to this baseline approach in the FCA's rules that apply to authorised funds. The potential barriers reviewed were in the rules in the Collective Investment Schemes sourcebook (COLL), Investment Funds sourcebook (FUND) and the Client Assets sourcebook (CASS). However, as individual models of fund tokenisation may differ, the FCA expects firms to undertake their own due diligence to ensure they comply with their legal and regulatory obligations. Firms may wish to seek appropriate professional advice in this regard.

In circumstances where tokenised units fall within the regulatory perimeter (e.g., security tokens), firms carrying out regulated activities relating to custody of these assets are likely to be subject to CASS. The FCA is currently reviewing its custody rules in respect of digital assets – see Chapter 5 of the FCA's DP23/4<sup>32</sup> for further details.

## STAGE TWO AND BEYOND

Having agreed the nature of stage one, further stages will involve exploring how to develop that model in different ways. The characteristics of these future stages of work will be considered in more detail in phase two, towards the end of 2023. It is expected that there will be further stages required over time, with incremental progress being made by changing one, or potentially two, features at a time. This will provide needed transparency of the impact of each new feature. The scheduling choice for each of the features will need to be considered carefully.

Some firms may want to move quickly towards the use of a single open, public chain operating on a robust settlement layer that is secure, trustworthy, and decentralised. Others will see value in other features such as global market access and interoperability, secondary markets or rethinking the funds' ecosystem more drastically. Settlement utilising digital money, or on a much-reduced timescale, will be a likely area of development, as will increasing links to the asset and client registers.

The consideration of the relative merits of these features and the appropriateness of each will be considered in phase two. Firms with relevant experience or an interest are invited to share their views.

When taken together, the changes brought about by the proposed staged approach will move the implementation of fund tokenisation towards the shared vision state of each register being held on-chain.

# 3. THE BLUEPRINT FOR IMPLEMENTATION

The Group has identified the steps required to move the industry along the spectrum towards the shared vision, ensuring that the UK is at the forefront of innovation and supporting the importance of the UK investment fund market.

This agreed Blueprint for Implementation sends a definitive message to the industry and wider stakeholders that the infrastructure for UK fund tokenisation has been established and can now be utilised via the baseline model outlined in the previous section, and that further work is being undertaken in short order to make improvements to the model for more complex use cases and applications.

The items making up the Blueprint are a combination of: (i) those that are to be navigated in order for firms to utilise the baseline – or ‘stage one’ – effectively, and (ii) those that are relevant to certain use cases that may be a feature of future stages, or whose remedy would provide a useful enabler for the shared vision.

## A: UTILISING STAGE ONE

Firms are now able to utilise fund tokenisation in the UK based upon the baseline model characteristics listed on pages 20-21, and subject to navigating three items.

### 1. Regulatory certainty for UK fund tokenisation

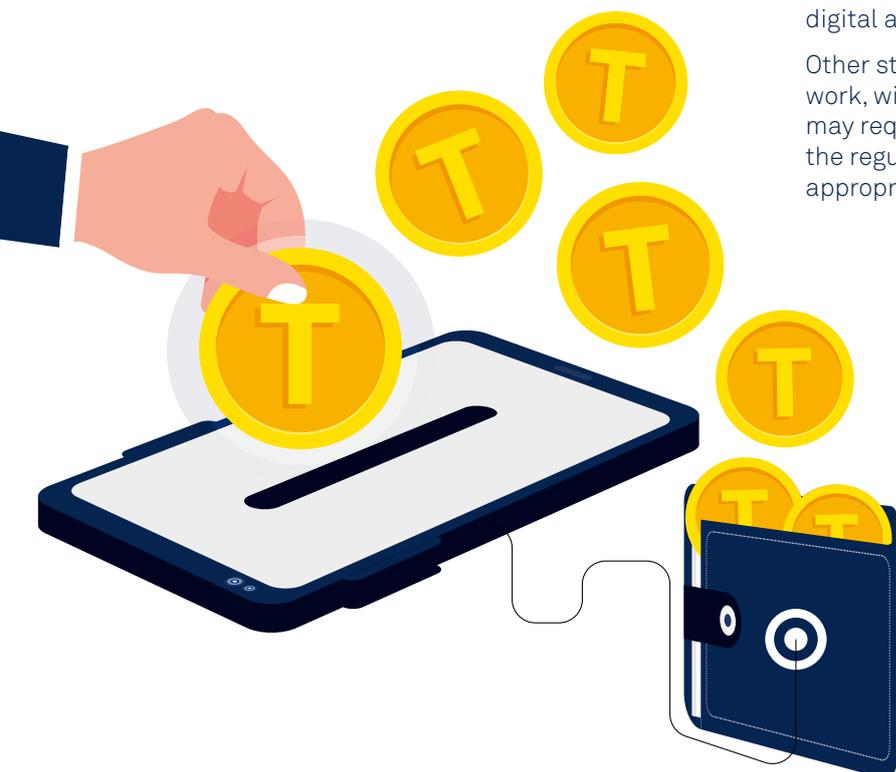
The rules relating to authorised investment funds are well established and were written before DLT was envisioned. As part of the Group’s work, the FCA and firms conducted a high-level review of the existing rules that apply to authorised funds, including the rules in COLL, FUND and CASS. No obvious or significant barriers to stage one were identified.

This means that models of fund tokenisation that follow the stage one characteristics should be capable of complying with the existing regulatory framework.

As individual models of fund tokenisation may differ, the FCA expects firms to undertake their own due diligence to ensure they comply with their legal and regulatory obligations.

In circumstances where tokenised units fall within the regulatory perimeter (e.g., security tokens), firms carrying out regulated activities relating to custody of these assets are likely to be subject to CASS. The FCA is currently reviewing its custody rules in respect of digital assets via DP23/4.

Other stages, to be defined during phase two of the work, will be assessed on their individual merits and may require rule changes, which will be subject to the regulatory rule making or adaption process at the appropriate time.



## 2. Foster DLT innovation across UK investment management industry

The industry discussion on the relevant applications of tokenisation has been ongoing for several years, with numerous publications, pilots, proofs of concept, industry consortia and other activity.

Encouraged by this recent level of engagement and commitment by the authorities to move forward, industry should reinvigorate its innovation agenda to deliver change, ensuring that investors have highly efficient and cost-effective vehicles available to them for their long-term investment needs.

This could take the form of ensuring that industry is able to leverage the collaborative engagement with the authorities, is able to realise the tangible benefits and cost reductions that are promised by the technology and improving employee skills to maximise the opportunities. To benefit from economies of scale and momentum, industry should coalesce around incrementally advanced stages of innovation instead of operating in silos or in a disconnected manner.

*The IA will act as a conduit between the industry, FCA and HMT to progress future stages of fund tokenisation, demonstrate incremental delivery and help firms engage with relevant officials.*

**IA | 3 months & ongoing**

*The IA will work with relevant stakeholders to promote industry standards and encourage an open market based upon interoperability and avoiding fragmentation.*

**IA | 3-18 months**

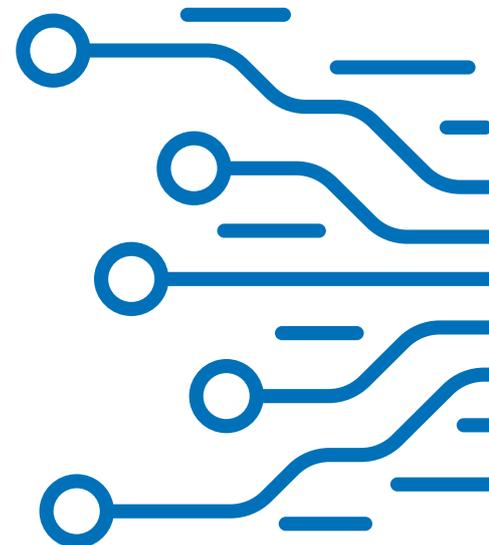
## 3. Money Laundering Regulations Registration Process

Currently, firms proposing to use DLT for fund tokenisation purposes may be required to register with the FCA<sup>33</sup> as a 'cryptoasset exchange provider' or 'custodian wallet provider', or both, under the Money Laundering Regulations. Registration is required even if a relevant firm is already authorised by the FCA to undertake other financial services activities.

Firms in the working group have raised the time it can take to obtain registration as a potential barrier to using fund tokenisation.

*While the Money Laundering Regulations are made by government under legislation, the FCA is exploring whether it could more quickly determine MLR registration applications for firms already authorised by the FCA to carry out regulated financial services activities, where there is a lower risk of harm and where the FCA has evidence of strong control frameworks and non-adverse regulatory histories.*

**FCA | 3-6 months**



**FIGURE 3: RECOMMENDATIONS FROM THE GROUP, BY RESPONSIBLE PARTY**

Investment Association / Industry	Financial Conduct Authority	HM Treasury / Government
<p>The IA will act as a conduit between the industry, FCA and HMT to progress future stages of fund tokenisation, demonstrate incremental delivery and help firms engage with relevant officials.</p> <p><b>Timeframe: 3 months &amp; ongoing</b></p>	<p>While the Money Laundering Regulations are made by government under legislation, the FCA is exploring whether it could more quickly determine MLR registration applications for firms already authorised by the FCA to carry out regulated financial services activities, where there is a lower risk of harm and where the FCA has evidence of strong control frameworks and non-adverse regulatory histories.</p> <p><b>3-6 months</b></p>	<p>Once the further stages are detailed, HMT to consider impacts on legislation.</p> <p><b>9-12 months</b></p>
<p>The IA will work with relevant stakeholders to promote industry standards and encourage an open market based upon interoperability and avoiding fragmentation.</p> <p><b>3-18 months</b></p>	<p>Once the further stages are detailed, FCA to consider impacts on Handbook rules.</p> <p><b>9-12 months</b></p>	<p>The Group recommends that industry partners work with HMT to identify barriers in legislation for holding digital investible assets, and then to enable necessary legislative change, potentially through the Digital Securities Sandbox or another sandbox.</p> <p><b>6-12 months</b></p>
<p>Industry to develop the details of further stages of fund tokenisation.</p> <p><b>3 months+</b></p>		<p>The group recommends that the government support building awareness of the digital identity legal framework set out in the Data Protection and Digital Information Bill, including the trust framework, and encourage industry adoption.</p> <p><b>9-24 months</b></p>
<p>Industry to decide upon the optimal form of digital money for fund settlement.</p> <p><b>1-2 years</b></p>		<p>The group recommends that HMT consider whether further action is needed on access to business accounts.</p> <p><b>1-2 years</b></p>
<p>Industry to explore the possibility of leveraging the Bank of England's work on Synchronisation to enable wider industry access to the Real-Time Gross Settlement service and enable funds settlement in digital central bank money.</p> <p><b>1-2 years</b></p>		
<p>Firms to express interest to participate in HMT Digital Securities Sandbox.</p> <p><b>3-9 months</b></p>		

## B: UTILISING FUTURE STAGES

Future stages will depend on industry's views on the features to be prioritised and the appropriate scheduling of them as we move along the spectrum towards the shared vision. Items in this section are relevant to certain use cases or whose remedy would provide a useful enabler for future progress.

### 4. Industry to develop the details of further stages of fund tokenisation

This report sets out the first stage of tokenised investment funds and the characteristics they will have. Now that this first stage, or baseline model, is established the discussion must move onto what the next stages and applications of a tokenised investment fund might be.

Whereas the characteristics of a stage one tokenised fund are set out above, the characteristics of future stages and uses of fund tokenised funds are a matter for further discussion, with various considerations to be made on which features should be adjusted, and in which order.

Some firms will want to move quickly towards the use of a more open, public chain. Others will see value in other features such as a much-reduced settlements timescale, or more open secondary markets. The Group will consider the relative merits and appropriateness of each of these features and engage the authorities where regulatory or legislative change may be necessary.

Firms with relevant experience or an interest are invited to share their views with the Group by the end of 2023 to be included in phase two, or afterwards to the IA.

Separately, some firms are keen to be able to modernise the way units in a fund are bought and sold, as an alternative to the traditional UK business model. The IA's Direct2Fund<sup>34</sup> proposition is an optional model which would make it possible for investors to transact directly with the fund when buying and selling units.

This may also be considered in a fund tokenisation structure. The IA is working with the FCA to identify and analyse regulatory issues in introducing this new dealing model. These include how investor protections currently afforded by COLL and CASS rules could be appropriately maintained.

*Industry to develop the details of further stages of fund tokenisation.*

**Industry | 3 months+**

*Once these further stages are detailed, industry to work with FCA to consider impacts on Handbook rules & with HMT to consider impacts on legislation.*

**FCA & HMT | 9-12 months**

### 5. Availability of digital forms of money to settle transactions

While existing payment rails can be leveraged to facilitate fund settlement in early-stage scenarios, digital forms of money will provide greater efficiency and an on-chain mechanism, more directly linking the transfer of ownership of the token with the payment. Phase 1 of HMT's cryptoassets regulation, as set out in the consultation on the Future Financial Services Regulatory Regime for Cryptoassets, suggests that a regulated stablecoin framework will be delivered shortly, but it is too early to know whether these private commercial coins could be utilised for these purposes.

HMT has recently confirmed that it will be bringing the activities of issuance and custody of fiat-backed stablecoins, where the coin is issued in or from the UK, within the regulatory perimeter of the Financial Services and Markets Act 2000<sup>35</sup>. A coin of this type may be suitable for on-chain fund settlement.

Separately, the Bank and HMT are exploring a retail digital pound<sup>36</sup>, a central bank digital currency (CBDC) for the UK public and businesses. The proposal for the digital pound, as set out in the February 2023 consultation<sup>37</sup>, is a retail proposition designed for everyday payments, for use between individuals and other individuals or businesses in the real economy. However, the proposed model for the digital pound as set out in the consultation paper is not envisaged to be a form of wholesale payment for trading in and settling securities transactions.

Nevertheless, the similar concept of a ‘wholesale CBDC’ could be used to settle high-value payments between financial firms. The Bank is separately exploring wholesale initiatives, as noted in the digital pound consultation paper. The Bank’s intentions for wholesale are being progressed via an upgrade to its Real-Time Gross Settlement (RTGS) service which will, in the medium term, enable the RTGS to interoperate with innovative technologies (e.g., DLT). It aims to achieve this via means such as omnibus accounts and a new synchronisation functionality the Bank is exploring. The IA is a member of its Synchronisation Co-Creation Group in this regard.

Other digital forms of commercial money are likely to come to market in the coming months and years that could also prove to be useful mechanisms for on-chain settlement in fiat currency. These may be interim solutions until access to central bank-backed forms of digital money are widely available, or they may prove to be the longer-term solution.

*Industry to decide upon the optimal form of digital money for fund settlement.*

**Industry | 1-2 years**

*Industry to explore the possibility of leveraging the Bank of England’s work on Synchronisation to enable wider industry access to the Real-Time Gross Settlement service and enable funds settlement in digital central bank money.*

**Industry | 1-2 years**

## 6. Legal considerations for investible assets

As recently outlined by the UK Jurisdiction Taskforce and the Law Commission, English and Welsh law is generally flexible enough to cater for digital assets, albeit this may be assisted by a new third category of personal property which would include digital objects. It should further be noted that the ability of funds to hold digital securities within their portfolios is not expressly permitted by UK law.

According to the Law Commission, the requirements of the Companies Act 2006 relating to the maintenance of members’ registers may also act as a barrier to the tokenisation of shares and other corporate securities. This was echoed by HMT in their consultation on the Digital Securities Sandbox, which identified the following potential barriers to enabling digital securities to be effectively notarised, traded, settled and maintained:

- The section covering formalities of registers of members (Section 113) may need to be clarified to ensure that references to a ‘register’ include digital or electronic form.
- The section which covers instruments of transfer (S770) may need to be modified to ensure that any transfers via a financial market infrastructure in the Digital Securities Sandbox can be regarded as consisting of a proper instrument of transfer.
- References to securities (particularly in S783) may need to be clarified to ensure they includes securities issued/traded/settled/maintained inside the sandbox.
- The section relating to company records (S1134) may require modification to treat ‘kept by a company’ as including those stored and maintained in digital or electronic form on a decentralised ledger within a financial market infrastructure.

Although these amendments are not strictly required for the tokenisation of securities on a permissioned blockchain, the Group agrees with the observations above and recommends that the government consider making these modifications in order to provide clarity and drive investment in fund tokenisation in the UK.

The Group also recommends that equivalent positive clarifications be made within the Limited Partnerships Act 1907 for Limited Partnership interests, for the same reasons and to avoid any argument that omission equates to a lack of permission.



In addition, as observed by the Law Commission and the UK Jurisdiction Taskforce, future case law may provide clarity on the existing common law position for investors on ownership, title, delivery, and categorisation at the issuance level, or at the tokenisation level if the asset has already been issued. This may also raise regulatory issues in the FCA's Handbook, including interaction with the CASS and COLL rules.

Further to the Law Commission's conclusions, in Scotland, a separate project is close to culmination in developing recommendations in respect of the treatment of digital assets. The Expert Reference Group will provide legal clarification and advice to the Scottish Government on whether there is a need for legislation to accommodate digital assets in Scots private law. Firms with funds constituted there should monitor this in case of further relevant legislative developments.

*The Group recommends that industry partners work with HMT to identify barriers in legislation for holding digital investible assets, and then to enable necessary legislative change, potentially through the Digital Securities Sandbox or another sandbox.*

**HMT & Industry | 6-12 months**

## 7. Central Securities Depository requirements and evolution of responsibilities

Admittance of securities to a trading venue requires admission to a central securities depository (CSD) under the UK Central Securities Depositories Regulation (UK CSDR). This would apply to some tokenised funds, such as Exchange Traded Funds, and certainly to tokenised underlying assets held within the fund's investment portfolio.

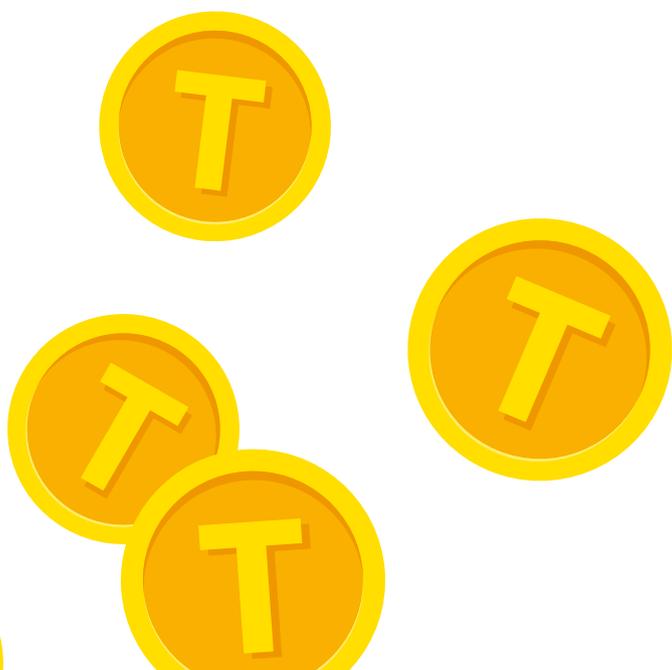
Adding a digital security to a non-digital CSD results in the digital representation being transitioned back to traditional operational structures rather than utilising the benefits of a DLT, which is inefficient and duplicative. Additionally, references to defined terms such as 'accounts', 'book entries', 'credits' and 'debits' in current legislation and regulation may pose problems for many DLT arrangements.

The HMT Digital Securities Sandbox will enable firms to perform the activity of a CSD under a modified legislative framework. If firms want to perform these activities they can apply and be designated as a 'digital securities depository' and perform live activity whilst making use of modifications to, or alleviations from legislation, which would be subject to limits. These limits can be lifted as an entity meets requirements over time.

Relevant requirements include UK CSDR Article 2(1) (definitions), 3(2) (book-entry form), 16 (authorisation of a CSD) and 35 (messaging standards), along with the other requirements identified in HMT's Digital Securities Sandbox consultation paper.

*Firms to express interest to participate in HMT Digital Securities Sandbox.*

**Firms | 3-9 months**



## 8. Availability of digital identity

A significant responsibility of fund managers relates to the identification of potential investors and establishing the legitimacy of their background and source of funding (as per item 3). The process for doing so is fragmented, documentation-heavy and sometimes lengthy. The emergence of secure identity data capabilities provides a more efficient and digital solution for customer due diligence.

Digital identification is already available for retail investors but its adoption within the funds industry has been uneven to date with some questioning their ability to meet the requirements under the Money Laundering Regulations. Solutions for institutional investors are also emerging, and adoption across investor types will be helped by the government progressing digital identity measures via the Data Protection and Digital Information (No.2) Bill<sup>38</sup>. The Bill, which is expected to become law in 2024, will put in place the necessary structures for secure digital identities. The provisions in the Bill will underpin the 'UK digital identity and attributes trust framework' (a set of rules and standards governing the use of digital identity), establish governance functions so that people and businesses can know who is following those rules and enable public authorities to share information with organisations certified against the trust framework for digital verification purposes.

The government is considering the best way to provide greater clarity for industry as to how digital verification services certified against the UK digital identity and attributes trust framework support requirements under the Money Laundering Regulations 2017.

*The group recommends that the government support building awareness of the digital identity legal framework set out in the Data Protection and Digital Information Bill, including the trust framework, and encourage industry adoption.*

**HM Government | 9-24 months**

## 9. Availability of Banking Services

Fintechs and even some established firms providing services related to tokenisation and DLT are sometimes unable to obtain banking services from UK banks. This may reduce the pace of innovation in the UK and potentially increase the risk to investors where firms instead are pushed into using sub-optimal banking arrangements or an e-money institution.

Regulators in some other jurisdictions have urged banks to review their due diligence processes for unnecessary burdens when onboarding firms performing cryptoasset-related activities, while cautioning firms to represent their services accurately. The UK authorities could consider how to support innovators via full access to banking services.

*The group recommends that HMT consider whether further action is needed on access to business accounts.*

**HMT | 1-2 years**

# CONCLUSION

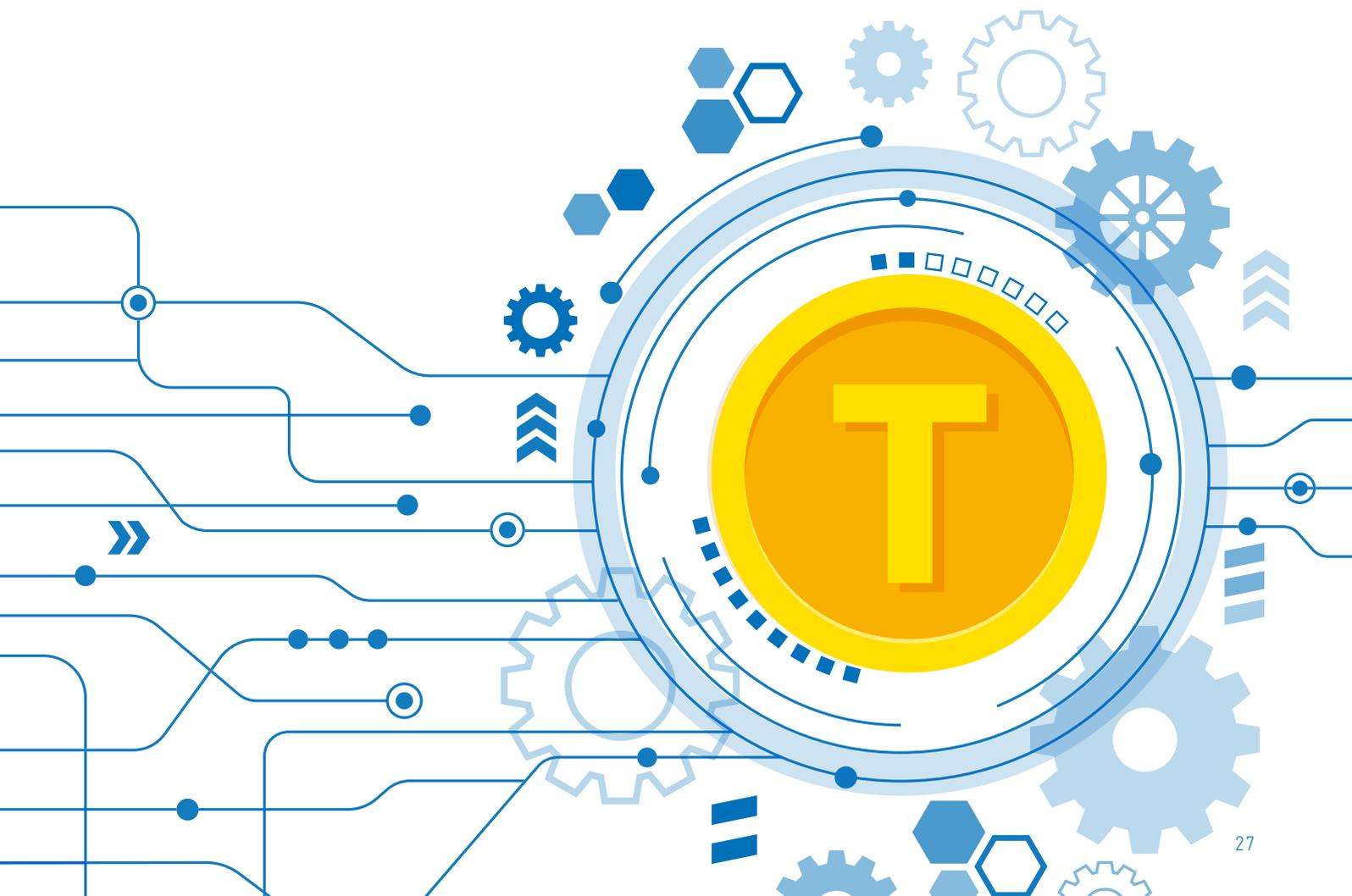
The industry's collaboration via the Asset Management Taskforce with government, regulators and a wide range of market participants has delivered a step change to investment fund innovation by establishing the infrastructure for fund tokenisation in the UK funds market. It puts the foundation in place for investors to access highly efficient and cost-effective vehicles for their long-term investment needs and confirms the UK's position as a leading jurisdiction for innovation.

We will look at further stages of fund tokenisation, as well as monitoring progress against the short-term recommendations, as part of the phase two workstream. Firms with an interest in either should contact us to provide input.

The Working Group will follow up with its conclusion on these other phases of work in due course.

As the Secretariat for the Group, the IA will work with its membership and other key stakeholders to ensure the delivery of all of the recommendations and to review progress with the Asset Management Taskforce.

While the UK is considered one of the world leaders in asset management with a long heritage in investment funds and innovation, there is no room for complacency. The investment industry and society as a whole need to navigate the challenges of an ongoing technology transformation in the remainder of this decade and beyond to continue to deliver value for savers.



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# ENDNOTES

- <sup>1</sup> Source: [UK Finance: Unlocking the Power of Securities Tokenisation](#) July 2023
- <sup>2</sup> The Investment Association: [Tokenised funds resources](#) webpage
- <sup>3</sup> Engine is the world's leading buy-side fintech hub, launched in 2018, which aims to fuel the adoption of technology within the investment management sector, for the benefit and changing needs of clients. Source: IA Engine: [About Us](#) website
- <sup>4</sup> The UK is the world's leading international investment hub. Source: The Investment Association: [Investment Management in the UK: The Investment Association Annual Survey – 2022-2023](#) October 2023
- <sup>5</sup> The Investment Association: [Investing for the Future](#) July 2022
- <sup>6</sup> Ignites Europe: [Metzler issues tokenised shares for sustainable growth fund](#) September 2023
- <sup>7</sup> Investment Week: [Digital asset exchange tokenises stake in £16bn abrdn money market fund](#) June 2023
- <sup>8</sup> Iznes: [Successful use of blockchain for unit-linked asset management](#) June 2023
- <sup>9</sup> A longer, but not comprehensive, list of examples is available on the IA's [Tokenised funds resources](#) webpage which is broken down by region and country.
- <sup>10</sup> Franklin Templeton: [Franklin Templeton Money Market Fund Launches on Polygon Blockchain](#) April 2023
- <sup>11</sup> Securitize: [Hamilton Lane's \\$2.1 Billion Flagship Direct Equity Fund Now Available for Investment on Securitize via Polygon](#) January 2023
- <sup>12</sup> WisdomTree: [Prime brings tokenization and blockchain-enabled finance to the center of the consumer's financial life](#) July 2023
- <sup>13</sup> Monetary Authority of Singapore and the Bank for International Settlements: [Enabling Open and Interoperable Networks](#) June 2023
- <sup>14</sup> Monetary Authority of Singapore: [Project Guardian](#) website
- <sup>15</sup> UBS: [UBS Asset Management launches first blockchain-native tokenized VCC fund pilot in Singapore](#) October 2023
- <sup>16</sup> Financial Conduct Authority: [FCA joins forces with global regulators to foster digital innovation with Project Guardian](#) October 2023
- <sup>17</sup> Monetary Authority of Singapore: [MAS Partners Policymakers in Japan, Switzerland and the UK to Foster Responsible Digital Asset Innovation](#) October 2023
- <sup>18</sup> The sell-side are increasingly testing and issuing tokenised versions of assets, and digital securities, in various jurisdictions. Source: UK Finance Ibid
- <sup>19</sup> European Securities and Markets Authority: [ESMA Report on Trends, Risks and Vulnerabilities, No. 2, 2023](#) August 2023
- <sup>20</sup> Citi: [Money, Tokens, and Games: Blockchain's Next Billion Users and Trillions in Value](#) March 2023
- <sup>21</sup> The Bank's aim for 'greater access' to RTGS will facilitate direct access to central bank money settlement for a wider range of participants. This will help to reduce tiering risks and promote competition and innovation. Source: Bank of England: [The renewed RTGS service – key benefits](#) April 2023
- <sup>22</sup> Regulated Liability Network: [Potential RLN benefits](#) webpage
- <sup>23</sup> Fnality: [What We Do](#) webpage
- <sup>24</sup> UKJT LawtechUK: [Legal statement on digital securities](#) February 2023
- <sup>25</sup> Law Commission: [Digital Assets: Final Report](#) June 2023
- <sup>26</sup> HM Treasury: [Consultation on the first Financial Market Infrastructure Sandbox – The Digital Securities Sandbox](#) July 2023
- <sup>27</sup> HM Treasury: [Future financial services regulatory regime for Cryptoassets – Response to the consultation and call for evidence](#) October 2023
- <sup>28</sup> HM Government: [The Bletchley Declaration](#) November 2023
- <sup>29</sup> The US securities markets will be moving to a T+1 settlement regime in May 2024. Source: US Securities and Exchange Commission: [SEC Finalizes Rules to Reduce Risks in Clearance and Settlement](#) webpage
- <sup>30</sup> Ignites Europe: [BlackRock money market fund tokenised on JPMorgan blockchain](#) October 2023
- <sup>31</sup> Firms typically reserve the right to effect mandatory redemptions or share class conversions without the investor's explicit consent to do so, or are required to comply with court orders to prevent transactions.
- <sup>32</sup> Financial Conduct Authority: [DP23/4 - Regulating cryptoassets Phase 1: Stablecoins](#) November 2023
- <sup>33</sup> Financial Conduct Authority: [Cryptoasset registration: information for applicants](#) webpage
- <sup>34</sup> The Investment Association: [D2F Hub](#) webpage
- <sup>35</sup> HM Treasury: [Update on Plans for the Regulation of Fiat-backed Stablecoins](#) October 2023
- <sup>36</sup> The Bank of England: [The Digital Pound](#) webpage
- <sup>37</sup> The Bank of England: [The digital pound: A new form of money for households and businesses?](#) February 2023
- <sup>38</sup> The draft Bill contains digital identity measures to underpin the important structures the government needs to put in place to secure digital identities. Source: UK Parliament: [Data Protection and Digital Information \(No. 2\) Bill](#) webpage



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