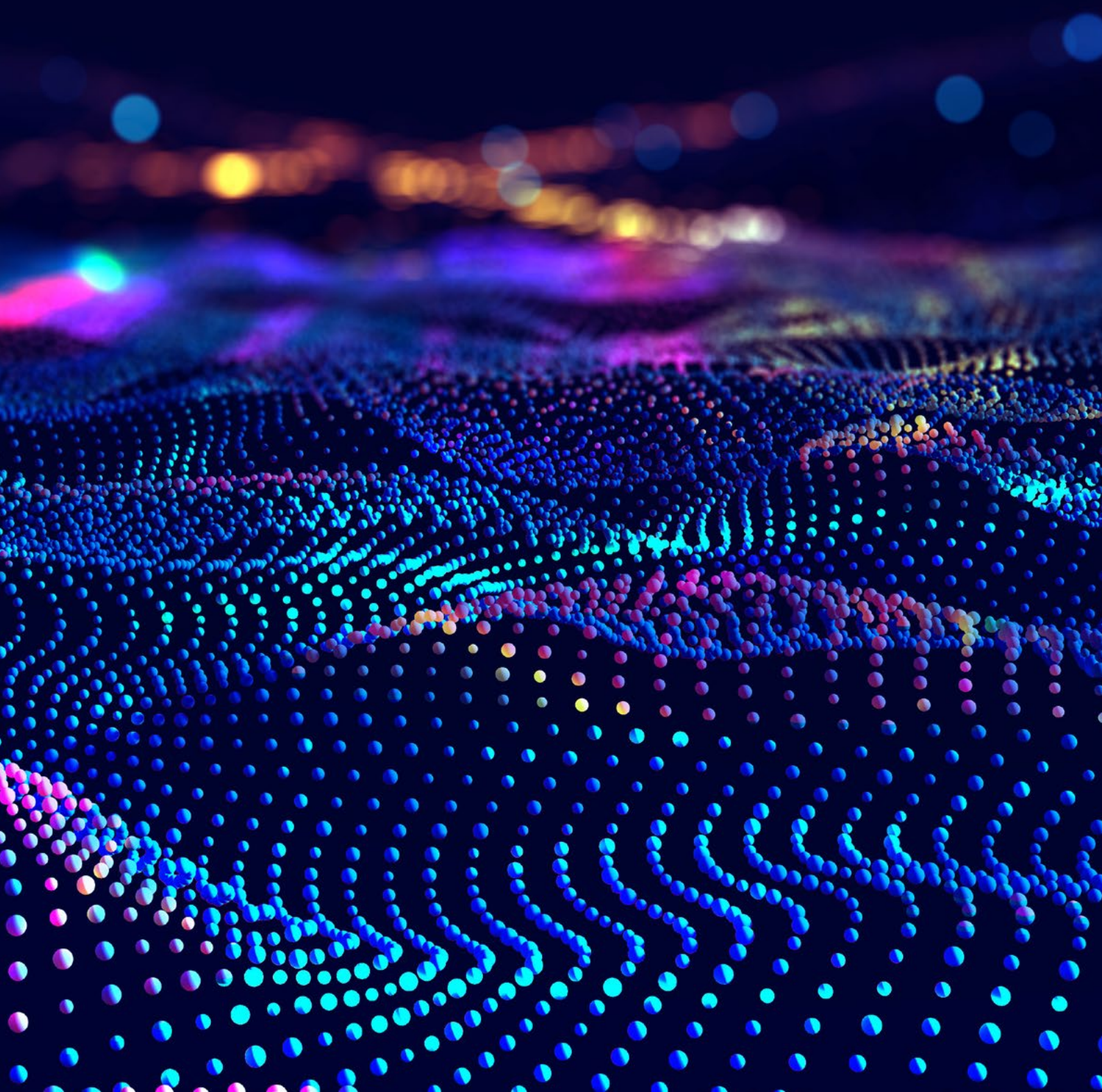


INNOVATE
FINANCE

FINTECH FOUNDRY
by Shearman

Treasury Committee Inquiry: The Crypto-Asset Industry



Treasury Committee Inquiry: The Crypto-Asset Industry

Submission by Innovate Finance with
Shearman and Sterling (London) LLP

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1. Introductions

About Innovate Finance

Innovate Finance is the independent industry body that represents and advances the global FinTech community in the UK. Innovate Finance's mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators.

The UK FinTech sector encompasses businesses from seed-stage start-ups to global financial institutions, illustrating the change that is occurring across the financial services industry. Since its inception in the era following the Global Financial Crisis of 2008, FinTech has been synonymous with delivering transparency, innovation and inclusivity to financial services. As well as creating new businesses and new jobs, it has fundamentally changed the way in which consumers and businesses are able to access finance.

Our response to this consultation has been shaped by engagement with members including leading firms in crypto-asset sectors. We have also taken a wider view in terms of the impact on trust, international competitiveness, innovation, start-up business environment and investment landscape in the UK FinTech ecosystem as a whole.

About Shearman & Sterling LLP

Shearman & Sterling LLP is an international law firm specialising in financial services, technology and other industry sectors. For 150 years the Firm has advised many of the world's top corporations, financial institutions and governments on their most difficult, ground-breaking and contentious matters. Today, the Firm advises a broad range of financial services businesses including financial technology companies in rapid growth or of global reach. The Firm is committed to supporting FinTech start-ups and entrepreneurs, banks and venture firms shaping the future of financial services. With a cross-practice team of industry and thought leaders, Shearman & Sterling is able to support the FinTech-related initiatives of our clients and the wider FinTech ecosystem on a cross-border basis, helping our clients navigate the complexities of law and regulation.

2. Summary and Key Points

- The use of new technologies in financial services and finance systems are at the start of a fundamental revolution that will transform society and economies. Cryptocurrencies like Bitcoin are only a small part of the story.
- The first wave of FinTech innovation over the last decade transformed the customer experience and the 'front end' of financial services (user interfaces and consumer-friendly apps and platforms). The next wave of innovation, driven by new technologies that enable crypto-assets, will be likely also to transform the 'back end' of finance, including payment systems and the infrastructure of capital markets, the ways in which transactions are carried out, legal records are maintained, and also the very nature of financial assets. This in turn could also enable new consumer- and business-focused products and services by allowing for new methods for the provision and trading of capital and risk.
- The application of digital assets and digitalisation in financial systems and services will create significant, real-life value and benefits – with far-reaching use cases that will improve economic productivity, facilitate new forms of consumer-to-business and business-to-business payments, improve the flow of capital to sustainable and growing businesses and tackle financial exclusion. There is an opportunity for the UK to benefit from this economic and social value, both domestically and globally.
- Analysis produced by Innovate Finance specially for the Treasury Committee shows that over recent years the UK has been the leading destination after the USA for investment in distributed ledger technology (DLT) and crypto-asset based businesses. However, other countries are now catching up and, so far this year, Singapore has overtaken and pushed the UK into third position.
- The global nature of this technology means that markets and investors will look for a centre to do business, to base these transactions in crypto-enabled capital markets. They will look for a location which has supportive and responsive regulators, offers a clear and predictable legal framework and a non-controlling, but safe system of law and regulation that builds trust and protects investors and consumers whilst promoting and encouraging innovation and new market entrants. The territory that achieves this will likely take a significant share of global financial transactions and its regulators will be in the best position to supervise and have information about business operators and transactions.
- The UK could be this global market centre for digital finance. To seize this opportunity, the UK needs to become a clear beacon of a 'digital democracy', building on its long-established traditions and reputation, while radically innovating in other areas. It already has:
 - a common law legal system, combined with political stability and a tradition of non-interference in commercial matters – that provides unparalleled legal confidence for transactions;
 - high-end regulators, with a regulatory approach that is agile and can adapt quickly, supports innovation and finds new ways of protecting consumers and financial stability; and
 - an approach to data that supports the use of citizens' digital identity in ways that protect privacy and enable citizens' data to be used (with their permission) by a diverse and competitive market of service providers.
- This is a market where technology cannot be allowed to be dominated by the State nor by a few private monopolies, and where rule of law and proportionate regulation should provide the necessary legal certainty and protections.

- For innovation to thrive, industry and consumers alike will need comfort, risk mitigation, regulatory standards and protections. That protection needs to be proportionate to the relevant risk and suited to the ways in which the specific activities and services operate and the relevant customer journey.
- Regulators also need to support market competition and avoid creating barriers to entry for smaller innovators, supporting the ability for new entrants to access the market in a fair and competitive way.
- Digital success can be achieved by the UK if we think creatively and comprehensively. This does not, for the most part, require international, global standards, which are arguably unattainable in the current state of geopolitics, and which will not create the biggest UK opportunity. The goal should instead be to develop UK standards and an approach that is globally attractive and for the UK to become the place where business is done, with customers opting to use the UK's market, as they have done for centuries. International standardisation and alignment of regulatory approaches can be pursued in parallel with this approach.
- To achieve this goal of being the global hub, in the UK we need:
 - A **joined-up strategy across Government, regulators and the legal system**, that is alive to the potential benefits as well as the risks of crypto technologies, and provides clarity for businesses and consumers interacting with them;
 - A continued **review of UK law and regulation** to ensure it provides the basis for recognising digital assets and digital transactions;
 - The **UK's regulators**, who currently suffer from poor turn-around times on applications and an undue focus on risk-aversion, **to improve their responsiveness and service levels** on processing applications for new businesses or new business launches (without reducing the level of scrutiny);
 - The **financial regulators to adopt a new approach to regulation**, in collaboration with industry, where they seek to combine existing rules with tweaks and changes needed for new technology, developing new frameworks only where needed, in ways that enable rapid adjustment. This should include the introduction of a central bank digital currency (CBDC) in a form that complements and does not crowd out private stablecoin and other payments innovation, a new form of regulatory sandbox for financial market infrastructure (FMI) and a graduated approach to regulation which applies rules only where necessary for the size of business in question;
 - The **UK's approach to crypto-asset regulation should enable the development of broader non-payment system DLT innovation**. The focus so far on stablecoins and payment systems has been necessary, but Government should also work to enable appropriate innovation in other uses;
 - In the shorter term, the UK to introduce **proportionate regulatory rules** for stablecoin, crypto-asset providers (including exchanges), initial coin offerings (ICOs), non-fungible tokens (NFTs) and custody; and to enable the tokenisation of investment funds and the use of crypto-assets in equity funding; and
 - **Meaningful dialogue with the industry**, with engagement that ensures breadth and depth of industry input.

- As the initial litmus test of UK credibility in this area, the UK should:
 - Delay current proposals to bring crypto-assets within the UK's financial promotion regime until such time as an authorisation regime is established for crypto-asset firms or, failing swift progress on this, introduce a temporary provision to allow those crypto-asset service providers who are registered with the FCA under the MLRs (Money Laundering Regulations) and who follow the rules under the UK's financial promotions framework to act as approvers of crypto-assets financial promotions. Financial promotions rules are important to ensure crypto promotions and marketing are fair, clear and not misleading. However, current proposals are unworkable: the absence of an authorisation regime, combined with the introduction of a regulatory gateway for financial promotions and the FCA's new related rules, will have the effect of substantially reducing financial promotions of crypto-assets, leaving many UK-based crypto firms unable to run any otherwise compliant financial promotions and creating a situation where consumers in the UK may seek out less scrupulous and unregulated crypto exchanges overseas; and
 - Ensure that the FCA develops a strategy for meeting or exceeding statutory deadlines on regulatory processes such as for new business authorisations, anti-money laundering (AML) registrations and individual and controller approvals, so that firms can make effective business plans and implement them.

3. Role of crypto-assets

3.1 Financial services are on the verge of a technological revolution

There is a technology-driven revolution taking place in financial services. It is at a relatively early stage, but it has the potential to transform the delivery of financial services and have a profound effect on markets and society. At the heart of this revolution is the digitalisation of the 'plumbing' and the 'back office' of financial services – the core systems and infrastructure on which finance and financial markets work – and the creation of new, digital assets.

3.2 Digitalisation of financial market infrastructure

Over the last decade, we have seen a FinTech wave of innovation, in which the UK has been a global leader. This has largely been driven by a customer-focused approach to disrupting markets – with digitalisation of the 'front end' of financial services, making it easier for customers to interact with services and putting new tools into their hands through their computer, phone and easy-to-use apps and platforms. This has to some extent involved some initial digitalisation of financial plumbing to power these new service offerings, including through the development of open banking and regulatory technology (RegTech) solutions, and new processes like digital customer verification. However, although the front end has changed, the back-end technologies and records supporting these services often remain unchanged.

A range of new technologies will transform financial services over the next 20 years, reducing costs, democratising investment and access to funding, facilitating more rapid and lower cost payments, including across borders, creating new functionality and services, disrupting existing markets in other sectors, and delivering new ways of ensuring stability in markets. These in part flow from new uses for the technology underlying crypto-assets (blockchain, DLT-based records and transactions and tokenised assets) and in part in combination with other technology (such as

powerful Artificial Intelligence (AI) and machine learning, programmability of smart contracts, digital ID and open data), to create a radically new financial system.

To take an analogy, in 2000 'LastMinute.com' seemed to represent the future of the internet, as proved to be the case with so many purchases and ticketing arrangements now taking place online. In the same way, crypto-assets are perhaps the most visible sign today of the opportunities arising from digital finance. Yet, in the last twenty years we have seen further developments of 'the internet' unimaginable in 2000 and applications that we never anticipated. Similarly, current digital assets merely scratch the surface of the digital revolution we will see.

The UK can harness and benefit from the range of innovations we expect over the next 20 years, but only with appropriate innovation friendly regulation in the digital space. UK regulators must take a technology neutral approach to these innovations, recognising that many of them can be used in different contexts, for different purposes.

In this submission we use a broad definition of 'digital assets' or 'digital finance' – which includes the use of 'crypto' DLT but is not exclusively based on DLT. The principle is of finance based on digital assets.

3.3 What are the characteristics?

We cannot accurately predict the future, but we can now discern some elements of it developing. Digital finance will likely utilise some of the following:

- Blockchain/distributed ledger technology (DLT);
- Decentralised finance (DeFi);
- Decentralised Autonomous Organisations;
- Web3;
- Cryptographic security;
- Open data;
- Algorithmic programming; and
- Artificial Intelligence (AI) and machine-based learning.

No single technology or product will shape the market on its own: innovation will come from combinations of these and their application to existing markets and services.

Rather than define each of the new technologies, we tease out a few common attributes here:

Digital record: This is based on a digitised record or ledger which should be a secure and trusted record that is impossible to tamper with, and which can be accessed securely by multiple parties (in either a centralised or decentralised way). It is not paper-based nor is it a digital version of a paper record.

Authentication by cryptography: This process ensures the security of a transaction and the participants, decentralisation, and protection from double-spending (proof of work).

Tokenisation: Assets (of any type) can be turned into digital representations or tokens and can also be divided into tokens enabling an asset to be fractionalised and distributed. The token is the digital tradable form of the asset.

Programmability, automation and smart contracts:

Tokens can hold significant amounts of data and algorithmic rules which enable 'programming'. This could be as simple as 'this token cannot be redeemed to buy alcohol' or 'this payment will be released when the terms of a (digital) contract have been met'. Equally, when applied to a derivatives trading market, for example, prudential stabilisers can automatically be triggered (e.g., to stop trading) when AI identifies patterns that could signify a stability risk. Smart contracts are programmes stored on a blockchain that run when predetermined conditions are met. These allow for automated transactions: they can automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement or time loss. This can improve settlement speed and efficiency.¹

Disintermediation: Whether this is based on decentralised technology (where stewardship is held by many stakeholders), a more centralised ledger or straight-through-processing, it cuts out established processes, systems and players. It may alter or remove the control which traditional financial institutions have over data, cash and/or assets. It creates opportunities to expand access, reduce cost (including capital allocations for counterparty settlement and credit risk) and rethink old practices. There will be winners and losers amongst those businesses that provide financial services and infrastructure; and established business models will be disrupted.

Cryptocurrency: The utility of blockchains with financial-based transactions is optimised with a cryptocurrency. For example, a smart contract may trigger a payment when certain conditions are met, and this payment is made on the blockchain using a cryptocurrency such that it is integrated with the smart contract and is fully verified on that blockchain. Alternatively, an application may have a series of non-financial transactions that are executed via smart contracts and recorded on the blockchain. The application must pay network fees (often referred to as gas fees) to the blockchain for verification of the transactions, and this must be paid in cryptocurrency. Cryptocurrencies are the oil that lubricates the blockchain engine.

The functions of financial markets are relatively straightforward in principle: enabling payments for transactions; providing deposit security; providing capital for people and corporates; verifying creditworthiness and the identity of clients; transferring risk; trading assets; and distributing products. All of this involves multiple relationships, contracts, legal documentation, and complex systems, all designed to achieve what are ultimately simple goals. These processes will be transformed by digital technology.

Financial services such as lending, accepting deposits, insurance and custody, as well as services related to physical products and entitlements, can all be intelligently addressed using DLT or related technologies. The scope for new business models and

¹ For example see: "[DTCC's blockchain T+0 settlement platform hits milestones in live parallel production](https://www.thetradenews.com/dtccs-blockchain-t0-settlement-platform-hits-milestones-in-live-parallel-production/)", (thetradenews.com): <https://www.thetradenews.com/dtccs-blockchain-t0-settlement-platform-hits-milestones-in-live-parallel-production/>.

activities, yet to be created, is greater than ever before. This innovation should also support reducing the structuring costs for financial instruments such as bonds or other fixed income debt, creating digitised versions of these debt instruments that can broaden the base of firms capable of raising such products to include the wider small business (SME) segment, and thus help to address gaps for funding in that space.

3.4 Areas of finance that will change

All aspects of financial services and markets will be transformed, but it is worth highlighting some key markets and areas:

Payments: Open banking is already transforming payments, with the ability now for consumers to allow automated direct payments to merchants they have agreed to pay (a more direct form of direct debit or having a 'card on account'). Research by Checkout.com² has shown that retail customers increasingly want to pay using digital currencies and where trusted and regulated financial services players can support the crypto payment process, both consumers and corporates have an appetite to select the specific aspects of Web3 – in respect of payment and settlement – that they see as beneficial. These may include 'stablecoins', which are digital assets tied to a fiat currency value and typically underpinned by assets. Stablecoins are already deployed by large corporates to reduce their costs for cross border transactions (e.g., JPM Coin, JP Morgan's private stablecoin). CBDCs, if introduced, will provide for further transformation of payments systems, enabling real time settlement of digital transactions and programmable currencies. A UK wholesale CBDC could

provide a wide range of financial institutions, corporates and merchants with the benefits of the Bank of England RTGS (real time gross settlement). A retail CBDC (i.e., a consumer offer) would unlock a range of new products and services for consumers.³ DLT can also connect into existing real time payments to create new networks.⁴

Capital markets infrastructure: Trading venues (such as stock exchanges and multilateral trading facilities) and post-trade infrastructures (clearing houses and settlement systems) provide for the transfer of legal ownership of assets and are therefore underpinned by the record or documentation of that ownership and trade. The UK is moving toward a fully digital register of listed equities⁵; in time, DLT may enhance the functionality and efficiency of a digital register. Digital tokens hold the promise of representing existing financial assets, such as bonds or derivatives, in a way that may be more efficient, if proven at scale. Digitalisation can also enable the exchanges themselves to be programmed with prudential controls to spot signs of financial instability or unusual trading patterns.⁶ In addition, blockchain or DLT could potentially allow regulators to digitally monitor the market in real time. Therefore, these technologies open the potential for digital compliance and regulatory controls.

Investment assets: Digital tokens can provide the basis for firms of all sizes to raise funds, where the tokens are issued as rights to assets; and for Venture Capital (VC) funds to tokenise their funds, enabling more liquidity and promoting secondary markets in VC investments. This could make investment funds cheaper and faster (in terms of settlement) for investors to access and, combined with the tokenisation of private assets, could allow investment funds and pension funds to access

² www.checkout.com/campaigns/demystifying-crypto?

³ Note, a CBDC does not need to be based on a distributed ledger.

⁴ For example, **Finality International** - a UK based **financial technology** firm founded in 2019 by a consortium of international banks and an exchange to create a network of distributed **financial market** infrastructures (dFMIs) using **Blockchain** to deliver the means of payment-on-chain for **wholesale banking** markets.

⁵ In July 2022 the UK government accepted this as one of the recommendations of Mark Austin's review of Secondary Capital Raising in the UK and appointed a Task Force led by Sir Douglas Flint to take this forward www.gov.uk/government/publications/digitisation-taskforce.

⁶ For example, FTX proposals being considered by the US Commodity Futures Trading Commission: see www.ft.com/content/b0917d6b-69bc-4d48-ac21-33993bda8043.

a wider range of asset classes without compromising liquidity requirements. There is however clearly a challenge with ensuring that appropriate and accurate advanced information and disclosure is provided to consumers considering investing in tokens as that which they expect when investing in bonds or shares.

Debt markets: With the reach of the new technology, we can expect to see the greater development of digital debt markets, especially for SMEs, with enhanced lending in digital assets and/or secured against digital assets. New participants will be able easily to take on positions or risk by purchasing digital assets, for a fee. Building and communicating the contractual terms applicable to digital smart contracts means that the fixed costs to issue such instruments can be significantly reduced. We anticipate the costs to structure such instruments will decrease considerably, using the efficiencies of blockchain, which could open access to bond financing at a reasonable price point for the likes of SMEs, and so create a more predictable new source of lower cost debt financing for British businesses. This should help to plug in part the £22 billion gap in funding for SMEs that has been highlighted by the Bank of England.

Net Zero/ ESG uses: The recent FCA sustainability sandbox featured several firms that are using blockchain technology for financial applications that support green finance and Net Zero. This includes blockchain records as part of assurance and audit of green investment funds, providing transparency against risks of greenwashing. It also includes the tokenisation of carbon credits, to enable 'micro' credits to offset consumer purchases. Any regulatory system should seek to require emissions disclosures and align crypto finance with Net Zero targets, as for any other part of the financial system (see below).

Financial inclusion: People and businesses have access to useful and affordable financial products and services that meet their needs. Policymakers need to be alive to the risks of technology excluding sections of the population, and guard against digital exclusion. But technology can provide solutions to financial exclusion, particularly tackling the issues faced by people who have

no access to financial services due to lack of accepted forms of identification (a fixed address, a passport, a driver's licence). CBDC, as a digital form of cash, could also make it easier for people with no bank account to access digital payments, especially if linked to a digital proof of identity or financial passport (see below).

3.5 Benefits

Across these different applications, digital finance can create benefits including:

Reduced costs: Digital assets remove the duplication of record keeping, enable instantaneous transactions without time delays,⁷ and can bypass some intermediaries, thereby reducing transaction costs and fees for end-users and overcoming the challenge for merchants of trapped liquidity that can accompany complex bank-to-bank payment chains.

Transform regulatory controls: Digital assets can provide more secure and more transparent record-keeping, with the potential to create greater transparency as to beneficial ownership. They can enable direct data sharing with the regulator (supervisory technology solutions - SupTech) or RegTech (simplifying and automating internal controls and reporting) for compliance controls. Programmable markets can also build in prudential controls and automate regulatory actions.

Democratise investment and funding for growth: Tokenisation of assets and digital trading platforms may reduce the costs of buying and selling shares or debt-like instruments, allowing a wider section of the population to participate in these markets. Starts-ups and scale-ups looking to raise capital can do so more directly with digital assets.

Transform non-financial markets: Enabling data to be combined and linking it to programmable finance will transform all sorts of other markets in the economy and society. To give one example, a CBDC (or potentially other digital assets) and ancillary digital checks could provide the basis for a transformation in the private

⁷ Note instant payments are also possible using some existing systems.

property rental market. This would not only provide the basis for rent payment by a tenant to a landlord, but the lease could be executed and recorded digitally: digitally-enabled identity and credit checks would allow pre-contractual verification; a deposit could be held virtually in a tokenised form, or could be replaced by programmed automatic contractual payments in the event of certain contract terms being triggered; and the digital contract could also provide data on the tenant for credit assessment. This would remove numerous separate, paper-based activities and combine them into one which in turn provides better information and controls that reduce risk (and therefore cost and risk capital) for the tenant and landlord alike.

More widely, at a macro level, if banks and insurers do not have to hold as much capital for counterparty risk because of, for example, reduced settlement cycles, there may be reduced costs for them and their customers. This illustrates the fact that digital finance has the potential to transform other financial services (such as insurance) and other markets (such as the rental market). Digital ledgers could in turn transform sectors like audit and accountancy. This is likely to bring productivity and innovation gains to the whole economy.

3.6 Risks and concerns

The potential scale and speed of change is significant. The risks that this technology brings with it are not generally new, however. They leave intact the same fundamental risks that need to be managed in all financial markets (and that arguably traditional finance has not always mitigated terribly well):

- Consumer harm;
- Counterparty/credit, interest rate and equity risk;
- Operational risk;
- Financial crime and fraud;
- Privacy risks;
- Social exclusion;
- Legal redress;
- Competition and anti-trust; and
- Financial stability risk.

For innovation to thrive, industry and consumers alike will need comfort, mitigation, regulatory standards and protections in all these areas. That protection needs to be proportionate to the relevant risk and suited to the ways in which the specific activities and services operate and the relevant customer journey.

The risks need to be considered very carefully alongside the means of mitigating them. It is important to consider the vested interests of some who highlight the risks; the incumbents and traditional players in markets can sometimes be the most vocal in warning against innovations that may challenge their position. Regulation should be proportionate and outcomes-based.

Any new technology and new product will invariably be seized on by those seeking to make a fast buck and by unscrupulous operators and organised criminals. To guard against this, we need policymakers to work with responsible industry participants to anticipate trends and take effective mitigating actions. If we identify the potential forms that the services can take at the outset, we can build mitigating actions into the assets, products and services and ensure better outcomes than traditional finance provides.

Any approach should be based on technology neutrality and should involve applying existing rules where appropriate to new assets but allow for testing to see if there is anything unique about the technology or service that requires some different techniques (same risk, same regulatory outcome).

4. The global market opportunity and regulatory response

4.1 UK approach to harnessing the economic benefit of crypto-assets

In the UK, we can choose to harness the economic benefit of crypto-assets in three ways:

1. The UK as a beneficiary of innovative products often created elsewhere, that nonetheless increase UK productivity.
2. The UK as the home for technology innovators of mainly new products and services, generating additional wealth through 'scale up' unicorn companies and from hosting entrepreneurs (with all the spin-offs they bring, including higher-wage jobs and tax).
3. The UK as the global hub for the issuance and trading of digital assets and as the centre for digitally enabled financial markets (listings, derivatives, commercial risk and so on). There is an opportunity to be the global financial services centre, in a world where finance is increasingly digitalised.

The biggest prize is in combining all three.

Digital finance can enable cross-border transactions and services. One way to achieve this involves a consistency of approach and aims among different nations over legal and regulatory matters. Most crypto-assets and currencies are intended to be used worldwide, so disagreements between legal and regulatory systems on issues such as regulatory status or rules on determining ownership, when those assets and currencies are to be traded across borders, give rise to the possibility of conflicting rules being applicable, undermining the utility of technological advances.

Many states have laws and regulations which have the potential to intervene, but no substantive international standards or treaties exist specifically for crypto products, for example as to determining as a uniform matter the basic legal and regulatory consequences that arise from holdings and transfers of such assets.

One approach would therefore be to pursue global standards and seek to agree common legal and regulatory approaches across national authorities. However, this seems likely to be time consuming, especially at a time when multilateral institutions and fora are waning in influence and global tensions are rising.

Instead, cross border systems can separately be facilitated by a territory which is trusted by corporates and consumers as the global hub for such transactions. Under private international law as understood in most countries, if trading is ultimately based on transfers across a system, accounts or ledgers with a clear domicile, the law of that jurisdiction will provide the anchor, and other legal and regulatory systems should defer to the law of that country and allow it to be the sole judge of legal entitlements and regulatory consequences⁸. If the UK addresses the issues discussed in this paper, then it has the potential to become the domicile of choice for digital and financial technology companies, which if domiciled in the UK would then be subject to established and fair principles with regards to issues such as property ownership and contractual entitlements.

Moreover, a set of rules applicable in many countries, known as reverse solicitation in the European Union (or "at the customer's own initiative"), assists UK businesses to provide services and products to non-UK businesses and consumers solely under the auspices of UK regulation. In certain circumstances and depending upon national laws of the user, where a non-UK business or consumer reaches out to a UK business (and a record

⁸ See below the discussion on the "place of the relevant intermediary approach" (PRIMA).

is kept of their approach), that business or consumer is exempt from any of its domestic regulatory restrictions which might prevent or restrict it from using the foreign service without expensive steps being taken. The non-UK business or consumer effectively gives up all or certain public law or regulatory protections afforded by its home state (non-UK) laws or regulations, accepting that, subject to contractual arrangements, the laws and regulatory requirements applicable to the UK service provider provide sufficient protection.

The opportunity to be the global financial centre in a world of digital finance can therefore rest on being selected as the country jurisdiction of choice for issuance, trading and other activities in digital assets.

International standardisation and alignment of regulatory approaches can be pursued in parallel with this approach.

4.2 Vision for UK: the world's leading digital hub for financial services

The UK is well placed to seize the opportunity and become the world's leading digital hub for financial services and products. This is possible if we adapt and reinvigorate our greatest asset: being one of the leading legal and regulatory frameworks in the world. English law remains the standard law of choice for international businesses in a broad range of sectors including for finance, infrastructure project developments, M&A transactions and shipping. The ongoing financial revolution also requires a single, clear and trusted legal and regulatory system, providing predictability and the oversight of risk.

This is not just an opportunity for London. The UK has RegTech centres in Northern Ireland, Edinburgh, Glasgow, Manchester and Leeds. In addition to these, Birmingham, Cardiff, Bristol, Newcastle, Durham, Reading and Cambridge are all thriving FinTech hubs.⁹ Technologies such as blockchain are seen as capable of powering "digital roads to the regions" throughout

4. The global market opportunity and regulatory response

the UK, particularly supporting more equal access to financial services and widening access to more specialist financial services currently concentrated in London. We have an opportunity to develop a leading global position that draws upon hubs across the UK.

The reason the UK should be well placed to play a leading role is its world-renowned legal and regulatory framework, based on the common law (Scots law is also a strong contender in this regard), and including the concept of the trust, which allows for the holding of client assets off the books of the service provider, a technique upon which the holdings of many financial instruments are based. This framework engenders confidence.

To achieve global success, we need a coherent UK legal and regulatory framework for crypto-assets, which delivers a safe, secure and resilient sector, protecting users while leaving space for innovation to continue, but does so in a way that is pragmatic and flexible and not a rigid, controlling, codified approach (like the EU). It should combine the common law with our tradition and expectation of political stability and non-interference (except where necessary) with commercial affairs, providing a properly-considered and predictable regulatory environment. Financial transactions will come to the country that balances innovation with legal and regulatory protection and stability. That requires a single UK strategy and a nimble regulatory approach. It also calls for strong competition and innovation, which means resisting any overweening control from incumbents in shaping the policy environment.

Attention should be paid to international arrangements, whose benefits have already been mentioned. It may be possible to enhance existing arrangements for cross-border securities holdings. In Europe, the "place of the relevant intermediary approach" (PRIMA), provides that the governing law for securities holdings is the law of the place of the intermediary. Recent private international law treaties, such as the Hague Securities Convention 2006, and some EU and UK legislation, such as the Settlement Finality Directive and the

⁹ see Kalifa Review of FinTech, page 90: assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/978396/KalifaReviewofUKFintech01.pdf.

Financial Collateral Directive, have furthered PRIMA. In the US, a revised Uniform Commercial Code (UCC) similarly paved the way for the development and use of a system where securities are held through one or more intermediaries, ultimately including a central depository. Both PRIMA and the UCC provide certainty for determining the applicable law for cross-border securities holdings. As explained, these arrangements can already be used to some degree for crypto-assets (provided that the service or asset is clearly domiciled in an appropriate jurisdiction). With embellishments, case law developments or legislative or interpretative developments, led by the UK, these arrangements could provide for even greater opportunities.

The UK should also maintain its existing openness to global business. The UK operates an open financial market for cross-border wholesale business through its 'overseas persons exclusion'. This permits relatively straightforward and easy access in the UK markets for wholesale users to cross-border wholesale business, negating the need for parties outside the UK interacting with non-consumers to obtain a UK regulatory licence. The overseas persons exclusion has been key to attracting business to the UK financial market, making the UK particularly attractive for international business.

For financial infrastructure and other specialised business areas, there are various separate means to ensure easy access to the UK markets (and, often, enhanced access for UK businesses to other markets), such as incorporating deference mechanisms into free trade agreements (cf. the Japan-UK agreement) or adopting mutual recognition mechanisms (cf. the Swiss-UK agreement). The UK's equivalence regime, which allows for the recognition of foreign systems governing such (and other financial) business, is based on the EU equivalence regime. However, unlike the EU, HM Treasury has stated that it will address equivalence 'in the round,' based upon outcomes, which will differentiate the UK approach from the EU's controlling, line-by-line approach. Many other states operate similar regimes, which they could be encouraged to enhance. For example, the US successfully deploys its "substituted compliance" regime but this could

potentially be expanded. Each of these methods can be applied, or become relevant, with appropriate adjustments, to wholesale and retail crypto business.

Another key benefit of the UK is its equal rules for all customers, regardless of their location. Unlike many countries (notably the US), UK financial regulation imposes the same standards on firms whether they are dealing with UK customers or non-UK customers, making it an attractive place for end-users the world over to receive financial services from.

It is already in any event possible in the crypto space for much business to be conducted under one regulatory regime – that of the UK. However, neither the overseas persons framework nor the UK regulatory framework have been drafted with crypto-assets in mind and could benefit were clarifications to be introduced. This presents a significant opportunity for the UK to become the world's centre for the provision of crypto services and products, and for crypto trading.

5. International comparisons and competitiveness

5.1 Scale up growth

The UK has already become a world leader in FinTech, applying technology to financial services and products. The UK was an early adopter and innovator in peer-to-peer platforms, in digital banking and in payments systems. We have developed strengths in WealthTech, InsurTech and RegTech.

However, work remains to be done. In terms of crypto-assets and related exchanges and infrastructure, the UK does not yet have any 'unicorn' companies (companies with a valuation of \$1 billion without being listed on the stock market) headquartered in the UK, although many of these businesses now have significant UK offices. The US has by far led in this regard, with nearly half of the fifty or more crypto unicorns globally, and several others in the likes of Australia, Canada, China, India and Singapore.¹⁰

Global talent has often followed to these markets, and some natively grown UK firms have moved headquarters overseas to correspond with more nimble jurisdictions (e.g., Blockchain.com). However, it is anticipated that company setups and mobile global talent will come back to the UK if we get the systems and message right.

5.2 Investment











Across FinTech, the UK has so far attracted more investment than any country other than the US. Innovate Finance publishes a twice-yearly report on investment into UK FinTech.¹¹ In the first half of 2022, investment continued to grow versus a very strong 2021 investment year.¹² 2021 saw a record \$11.6 billion invested in UK FinTech. Looking specifically at crypto business, we have produced analysis for the Treasury Committee (please see the table below). We have analysed all global investment from 2019 to August 2022 and identified the top ten countries for investment in crypto and DLT based financial services businesses. This shows that the UK has been the top destination for crypto related investment after the US over this period. In 2022 however, the UK has been overtaken by Singapore, pushing the UK into 3rd position globally. Other countries are also not far behind, including Switzerland, Bermuda, Canada and South Korea.

¹⁰ see 'The Blockchain Job Report 2022' by Centre for Finance, Technology and Entrepreneurship (CFTE): courses.cfte.edu/education/blockchain-job-report/.

¹¹ FinTech Investment Landscape 2021 - Innovate Finance: www.innovatefinance.com/capital/a-record-breaking-year-in-fintech/

¹² www.innovatefinance.com/capital/2022-summer-investment-report/.

Venture Capital investment in cryptocurrency firms from 1 January 2019 to 29 August 2022¹³

Country	2022 (Jan to Aug)		2021 (full year)		2020 (full year)		Total (2019-2022)	
	Deal Count	Capital Invested	Deal Count	Capital Invested	Deal Count	Capital Invested	Deal Count	Capital Invested
1  United States	451	\$7,386 m	640	\$16,712 m	225	\$2,987 m	1,581	\$28,800 m
2  United Kingdom	60	\$1,014 m	143	\$2,411 m	775	\$61 m	336	\$4,351 m
3  Singapore	83	\$1,281 m	151	\$979 m	211	\$61 m	356	\$2,581 m
4  Bahamas	1	\$500 m	6	\$1,423 m	41	\$4 m	13	\$1,971 m
5  Canada	40	\$82 m	52	\$1,315 m	105	\$29 m	138	\$1,593 m
6  South Korea	25	\$126 m	36	\$370 m	7	\$12 m	94	\$1,177 m
7  Switzerland	37	\$369 m	38	\$370 m	161	\$23 m	124	\$1,019 m
8  China	20	\$133 m	37	\$251 m	67	\$60 m	165	\$801 m
9  France	20	\$220 m	32	\$480 m	9	\$18 m	78	\$735 m
10  Germany	16	\$122 m	30	\$436 m	140	\$19 m	77	\$727 m

5.3 Regulation

5.3.1 Different jurisdictional approaches to crypto-asset regulation

The following table provides an overview of cryptocurrency regulation across six key jurisdictions. It demonstrates that regulation is far from harmonised on a global basis and continues to evolve, with upcoming changes in the UK, US and EU.

Each jurisdiction is adopting its own approach to regulation. Some (such as the UK, US and Switzerland) are attempting to incorporate crypto regulation into existing regulatory regimes. Others (such as the EU and Liechtenstein) have created entirely new regulatory frameworks. Most agree that there should not be a “one size fits all” approach and the status of a given token or instrument will depend on the facts. Consumer protection and contagion are common concerns across jurisdictions. AML rules are largely harmonised, in large part due to the work of the Financial Action Task Force (FATF).

The EU’s Markets in Crypto-assets Regulation (MiCA) sets out detailed rules, which will regulate crypto-asset service providers and introduce a disclosure regime for the issuance, offering and admission to trading of crypto-assets, including stablecoins. Cryptocurrency derivatives are already subject to regulation in the EU and UK under MiFID II¹⁴-based rules. Liechtenstein’s Blockchain Act takes a similar approach to MiCA, specifying the nature of digital assets and requirements for professional services conducted in relation to them, such as the issuance of tokens and provision of payment services.

The UK has to date held off implementing a comprehensive regime, choosing instead to allow the crypto market to develop without the encumbrance of didactic rules which may have a chilling effect on the industry. It has introduced rules in a limited number of areas which it considers pose the greatest risk of harm (e.g., a prohibition on the marketing of crypto-asset derivatives to retail consumers).

¹³ Data for all stages of venture capital investment (including accelerator, incubator, angel, seed, early and later stages VC, and PE growth/expansion funding). The data was compiled and summarised by Innovate Finance on 30 August 2022 using PitchBook data. The data has not been reviewed or approved by PitchBook.

¹⁴ Directive 2014/65/EU and Regulation No 600/2014.

	UK	US	EU	Singapore	Switzerland	Liechtenstein
Cryptocurrencies	Unregulated	Regulated	Unregulated	Unregulated	Unregulated	Regulated
Cryptocurrency Derivatives	Regulated	Regulated	Regulated	Regulation dependent on structure	Regulated	Regulated
Cryptocurrency Funds	Regulation dependent on structure	Regulated	Regulation dependent on structure	Regulated	Regulated	Regulated
Marketing	Supervised	Supervision dependent on structure	Supervised	Supervised	Supervision dependent on structure	Supervised
Stablecoins	Unregulated	Unregulated	Unregulated	Regulated	Regulation dependent on structure	Regulation dependent on structure
AML DO	Yes	Yes	Yes	Yes	Yes	Yes
Travel Rule	Not yet	Yes	Not yet	Yes	Yes	Yes

Green text denotes upcoming changes

The US (the other major common law jurisdiction hosting a global financial centre) has adopted an incremental approach akin to that of the UK. Their regulatory landscape is complicated by numerous federal regulators vying for supremacy in this area, on top of state regulators who are legislating in parallel. The US has been particularly active with respect to investment tokens, generally treating these as securities (as opposed to the EU or UK who have merely sought to interpret existing categories).

Switzerland has followed a technology-neutral approach, applying existing laws with regulatory guidance as a supplement where necessary. It has introduced a DLT law which governs the tokenisation of financial instruments.

Singapore has distanced itself from its former reputation as a crypto-friendly jurisdiction and appears to rely on a loophole in regulation to permit crypto activities. This approach often relies on a case-by-case analysis, legal opinions, or approval by the Monetary Authority of Singapore.

5.3.2 International regulatory approaches to crypto-asset regulation

Some international standards and guidance on the regulatory treatment of crypto-assets are emerging. The Financial Stability Board (FSB), for example, has published a statement¹⁵ warning crypto-asset service providers that they do not operate in a regulatory vacuum and should comply with any regulatory requirements that are designed to address risks that they might pose, for example AML regulations. The FSB is also planning to submit a consultation report to the G20 in October 2022 outlining recommendations to promote global consistency of crypto-asset regulation and supervision and a separate report on how existing regulatory frameworks could be extended to cater for global stablecoin arrangements.

In 2021, the FATF published updated guidance¹⁶ on the treatment of virtual assets (VAs) and virtual asset service providers (VASPs) from an AML perspective. In June 2022, it published an update¹⁷ on the implementation of the VA and VASP standards and identified its own

¹⁵ [FSB Statement on International Regulation and Supervision of Crypto-asset Activities.](#)

¹⁶ [Updated Guidance for a Risk-Based Approach for Virtual Assets and Virtual Asset Service Providers \(fatf-gafi.org\).](#)

¹⁷ [Targeted-Update-Implementation-FATF Standards-Virtual Assets-VASPs.pdf \(fatf-gafi.org\).](#)

priorities as: accelerating compliance with the relevant VA/VASP FATF rules; promoting implementation of the FATF travel rule; and continuing to monitor market trends for material developments that might prompt further FATF work in the VA/VASP sector.

The Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions have also published guidance¹⁸ on the application of the Principles for Financial Market Infrastructures to systemically important stablecoin arrangements. Stablecoin arrangements that perform a transfer function comparable to that performed by other FMI will themselves be considered to be FMI and so should adhere to the PFMI.

The Basel Committee has published a second consultation¹⁹ on the prudential treatment of crypto-asset exposures, following on from its first consultation²⁰ on the same subject which was published last year. The first consultation made a preliminary proposal for the prudential treatment of crypto-assets. The latest consultation makes certain amendments to the original proposals. In summary, the Basel Committee is proposing that different prudential treatments be applied to crypto-assets depending on their nature. Group 1 crypto-assets, which could be tokenized crypto-assets and stablecoins, would need to meet certain conditions in order to fall within that group and would be subject to the existing Basel framework. Group 2 crypto-assets, which could be tokenized crypto-assets, stablecoins or unbacked crypto-assets, would be those that do not meet the conditions for Group 1 and so are considered to be higher risk. Those crypto-assets would be subject to an adapted prudential regime. The consultation closes on September 30, 2022 and the Basel Committee plans to publish final standards before the year-end.

18 [Application of the Principles for Financial Market Infrastructures to stablecoin arrangements \(bis.org\)](#).

19 [Second consultation on the prudential treatment of cryptoasset exposures \(bis.org\)](#).

20 [Consultative document - Prudential treatment of crypto-asset exposures \(bis.org\)](#).

6. UK regulation and law

6.1 Current state of play

The focus of regulation to date in the UK has been on specific areas of conduct and consumer protection, namely:

- an FCA ban on the sale and marketing of crypto derivatives to retail customers; and
- expansion of the FCA's AML and CTF regime to cover certain crypto-asset activities.

There are also proposals to expand the regulatory regime in the following areas:

- extending the financial promotion rules to retail sales of crypto-assets. Innovate Finance has raised concerns that as currently proposed these would create a Catch-22 for all crypto-asset providers, not being allowed themselves to engage in marketing and promotions due to their lack of a licence; and unable to engage a third party firm to approve the promotions due to new rules restricting such services;
- extending the regulatory perimeter to stablecoins that are used as a means of payment; and
- introducing a special administration regime to address the failure of systemic digital settlement asset firms, including systemic stablecoin firms.

The UK has therefore focused primarily on risk to date and has not approached regulation as an opportunity to establish a regime that would attract global innovators and develop economic opportunities. This changed in April 2022 with Economic Secretary John Glen MP's speech at the Innovate Finance Global Summit, in which he set out a UK Government vision for becoming the best place in the world to start and grow a crypto business, with plans to regulate stablecoins used for payment and create a sandbox for DLT-enabled FMI. In addition, there has more recently been a shift in approach at the FCA, including successful industry

engagement. These developments have been welcomed and John Glen's announcements were reflected in the recently published Financial Services and Markets Bill.

Consideration is also being given to the status of crypto-assets as property. The LawTech Delivery Panel, chaired by Sir Geoffrey Vos, produced a legal statement on crypto-assets and smart contracts in 2019, the analysis of which has since been adopted by the UK courts. The legal statement laid down some cornerstones for the application of English law to digital assets. For example, it determined that crypto-assets had all the hallmarks of property and should in principle be treated as such by English courts. It discussed how the transfer of crypto-assets could be effected and how the governing law and jurisdiction of such assets might be determined. The LawTech Delivery Panel (U.K. Jurisdiction Taskforce) is currently consulting on the issuance and transfer under English law of "digital securities" (shares, bonds and other debt securities which are constituted by reference to a blockchain or distributed ledger). The aim is to publish a legal statement on whether, under English law, digital securities can be validly issued using blockchain or DLT, the form that such digital securities could take and the means of transfer. The consultation also considers attaching rights to digital securities and corporate requirements for UK companies issuing and transferring digital assets.

However, there is still a need for greater clarity on the legal status of crypto-assets and their owners. The normal route of litigation and the creation of precedent through judicial case law may be insufficient on its own, in this instance. The UK Law Commission has issued proposals to significantly reform the law of England and Wales to provide for the explicit recognition of a new category of personal property, referred to as "data objects". This would represent a fundamental change to traditional law which has for over a century recognised only two categories of personal property: things in possession and things in action. The UK Law Commission also proposes that:

- The concept of control best describes the relationship between persons and data objects, rather than the traditional concept of possession.
- The rules of derivative transfer of title can be applied to transfers of crypto-assets. This means that if a crypto token is transferred from one person (A) to another (B), B's legal interest is dependent on the transfer of A's legal interest. This differs from the analysis by the LawTech Panel in its 2019 legal statement, mentioned above.
- An explicit clarification is needed to apply the common law defence of good-faith purchaser for value without notice to crypto-token transactions. That defence currently only applies expressly via legislation to money and negotiable instruments.
- Reform is needed to clarify the apportionment of shortfall losses arising out of commingled crypto-token holdings held on trust by an insolvent custodian.
- Major work is needed to assess whether a bespoke statutory framework should be developed for collateral arrangements for crypto-token dealings.
- The courts could be given the discretion to award a remedy denominated in certain crypto-tokens.

6.2 What action is required? National regulation and regulatory approaches that protect consumers and support innovation and economic growth

In some cases, digitalisation means that existing assets take on a new form, or a digital token represents a traditional financial asset and questions arise as to how it is to be treated in law and regulation. Parliament needs to precisely define the regulatory perimeter for digital-assets. To date, this legislative clarity has been lacking, leaving the regulators in a difficult situation where they have felt it necessary to determine whether products fall into existing categories, often without any underlying or

obvious policy rationale for their interpretations. In many cases, the new services and products which utilise new technology to provide or conduct products or activities that are similar to already established sales or services add relatively little additional risk to customers or the system. Definitions of financial services and products that are currently in use need to be updated to clarify when financial technology services requirements require regulation and when they do not.

In other instances, amendments will be needed for the existing rules to cater for new products and services, so that financial firms have clarity on how any services are to be treated in regulatory terms, the capital and collateral they need to hold against new products, and when they can regard the new, digitised instruments as liquid. Such adjustments would permit these new asset classes to interact with the wider financial markets.

Some new market entrants may not survive, but the UK should not skew the outcome or seek to endorse particular technologies, business models or winners. That said, the regulators must be empowered to adjust the rules dynamically to tackle issues and new developments as they arise.

The UK must also determine the risk exposure for retail customers using these new products and ensure that they are appropriately protected. The type of regulation applied may be different for consumers in the UK, and those abroad seeking out the benefits of the UK market and wishing to purchase UK products remotely. The current approach, prohibiting the marketing and sale of crypto derivatives to retail investors in the UK, together with the prospective ban on marketing certain unregulated cryptos to retail customers, should be reconsidered in favour of a more nuanced approach that caters for the wide variety of products and services available. We understand that the current approach of the FCA in prohibiting these products is driven by concerns about investor losses on products with volatile pricing and the extent to which the regulators would be held liable for these. These issues will also require addressing as regulations in this area are developed. It is critical that rulemaking ensures an appropriate degree of protection and disclosure for consumers, whilst also

promoting a generation of jobs and wealth in the crypto sector and clarifying the position of regulators.

A regulatory reform agenda should cover three areas:

1. Fit for purpose: updating existing rules;
2. Fit for the future: enabling innovation; and
3. Innovative, agile regulators.

	1. Fit for purpose: updating existing rules	2. Fit for the future: Enabling innovation	3. Innovative, agile regulators
Now 2022	<p>In order to apply workable financial promotions rules, HMT should either delay current proposals until an authorisation regime is established for crypto-assets firms or introduce a temporary provision (e.g. enabling firms with FCA MLR authorisation to approve compliant promotions).</p> <p>Comprehensive review of all regulation, in consultation with industry, clarifying application of existing rules, and identifying what needs tweaking and what needs brand new rules.</p>	<p>Regulators start consulting now on stablecoin regimes (FCA, PSR, BoE)</p> <p>Government and BoE commit to introduce retail and wholesale CBDC and publish timetable.</p>	<p>FCA to set KPIs for AML authorisations; publish clear guidance; resource authorisation team to complete authorisations on time.</p>
Near 2023	<p>HMT and FCA develop proposals for longer term authorisation regime for crypto-asset firms; ICO information disclosure; and custody requirements.</p>	<p>Financial Services and Markets Bill adopted, creating enabling powers for regulators.</p> <p>Introduce stablecoin regime.</p> <p>Regulatory framework in place for first digital ID products.</p> <p>Clarify rules for tokenised equity fundraising, VC funds and lending products.</p>	<p>Launch Financial Markets Infrastructure sandbox.</p> <p>RegTech road map for how FCA, PRA and BoE will stimulate and support RegTech and SupTech approaches.</p> <p>Innovation and technology expertise embedded in all regulatory enforcement teams.</p>
Next 2024–25	<p>Complete implementation of Law Commission recommendations.</p>	<p>Wholesale CBDC introduced.</p> <p>Pilot testing of retail CBDC.</p>	<p>Extend ‘beta testing’ model of regulation to other financial systems and services – enabling regulator to work with industry to ‘turn on and turn off’ rules to adapt to market developments.</p>
Goals by 2028	<p>Clear legal framework that is attractive to investors, consumers and innovators – with track record of adapting the regimes as technology evolves.</p> <p>UK is the globally trusted market for digital financial transactions.</p>	<p>Adoption of CBDC positions UK as global centre for payments innovation.</p> <p>UK has leading platforms and exchanges for digital/DLT based derivatives, clearing, listings and secondary listings.</p>	<p>UK regulators attract talent, are seen as innovation partners by industry, and viewed by the public and Parliament as effectively managing material risks and supporting better economic, environmental and consumer outcomes.</p>

6.2.1 Fit for purpose: updating existing rules

This includes bringing new technology, products and services into the regulatory perimeter, where appropriate, and applying proportionate regulation that protects consumers and supports innovation, whilst reforming out of date legislation that provides poor consumer outcomes and/or fails to reflect the new technology.

The use of the new services and products needs to be addressed by making amendments to the existing rules for the financial system, so that financial firms know how to treat such services and products, what capital and collateral they need to hold against them and when they can regard the instruments as liquid.

New offerings may require entirely new concepts to be developed for when regulation applies, and new methods of regulation and supervision. It is vital that any provisions are clear in their effect, providing the legal certainty the market craves.

Regulators and policymakers must examine the risk exposure for retail customers using these new products and regulate them appropriately. The answer may be different for consumers in the UK, and those abroad seeking to purchase UK products remotely.

Actions in the immediate to near term should include the following:

6.2.1.1 Financial promotions:

We support the principle of ensuring that crypto-asset promotions are fair, clear and not misleading – and for financial promotions to be effectively regulated, with robust enforcement. This is critical to building consumer trust, ensuring consistent high standards and clamping down on irresponsible practices. This is an area where HM Treasury and the FCA have progressed a new regulatory framework for these products. However, current Treasury proposals for bringing certain crypto-assets into the financial promotions regime pose an existential threat to UK crypto-asset operations and

could drive responsible businesses out of the UK and UK consumers into the arms of less reputable offshore operators. This is a global market where the consumer is ultimately in charge, and if UK consumers wish to purchase these products they will do so. The question is whether there is a UK-regulated option which provides for protections and appropriate levels of disclosure and comfort to consumers (without making UK providers uncompetitive).

As things stand, the way the UK's financial promotion regime works for firms who do not hold Part 4A permissions under the Financial Services and Markets Act 2000 ("FSMA") means that the majority of crypto-asset firms will not be able to approve compliant financial promotions. These crypto firms will be increasingly unable to find suitable (in terms of knowledge, expertise and non-conflicted) third-party approvers for their financial promotions, a new requirement that the FCA is introducing. The FCA, in its consultation, acknowledges the dearth of suitable third-party approvers. The practical effect, due to crypto firms being outside the regulatory perimeter without a viable route to becoming an authorised person for the purposes of FSMA and the forthcoming section 21 regulatory gateway with the FCA's new requirements for third-party approvers to have appropriate expertise of the product being promoted, will be akin to introducing a marketing ban on their financial promotions. Crypto-asset firms in the UK face a Catch-22 situation: not being allowed themselves to engage in marketing and promotions due to their lack of a licence; and unable to engage a third party firm to approve the promotions.

This issue is a litmus test for the UK's approach to crypto. It is critical to find a solution as soon as possible. This is an example where bringing crypto-assets into a (changing) set of existing rules requires additional changes. We recommend that the extension of the financial promotion regime to crypto-assets be delayed until a new authorisation regime for crypto-asset firms is also in place. An alternative would be a new transitional exemption under the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 ("FPO") for crypto-assets service providers ("CASPs") who:

1. Offer products which are subject to the financial promotions regime under section 21 of FSMA but are not subject to the authorisation requirement under section 19 FSMA;
2. Are registered with the FCA under the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 ("MLRs"); and
3. Undertake to the FCA that they will follow the FCA's conduct of business rules applicable to financial promotions as if such rules were applicable.

This exemption could be time limited, during a transitional period until the application of a future crypto-asset firm authorisation regime.

6.2.1.2 A future crypto-asset firm authorisation regime

The example above points to the need, in the longer term, for an authorisation regime for crypto-assets service providers, beyond the basis of AML, to provide high standards of consumer protection and a level playing field for responsible exchange and custody providers. The approach to this should combine speed, on priority areas, and take an incremental approach. It should involve, as for other firms, principles- and outcomes-based regulation and application of existing activity-based regulatory categories where relevant, tweaked to fit crypto case studies and use cases. A review is needed, with industry engagement, of the risks associated with crypto-assets compared to those faced by consumers of other products – and a mapping of where existing rules could be applied, where adjustments may be needed, and where new approaches may be called for. The review should include consideration of:

- Where the geographical perimeter lies, paying particular attention to those in the industry who support an approach that focuses on entities operating in the UK and, in particular, those serving UK customers;

- Appropriate financial promotion and disclosure rules for new products; and
- The application of the new consumer duty, focusing on legal certainty and whether any measures might be needed over and above the consumer duty to protect customers of traditional products. In particular, there should be a focus on increasing the predictability of regulatory decisions capable of being made under the consumer duty, perhaps through court cases (i.e., precedent) and a greater use of binding guidance. At present, despite various efforts, this duty is too vague for the vision of the UK as a global consumer hub; it will put off valid businesses which wish to know whether their business models pass muster, or not.

6.2.1.3 ICO information requirements

Linked to this, there is a strong case for setting regulatory expectations for the disclosure of information when new crypto-assets are issued - 'Initial Coin Offerings' (ICO). At present there is no consistent approach to the level and accuracy of information provided, and exchanges are frequently left to police what assets they list (and do not list). The starting point may be Initial Public Offering (IPO) listing rules – again, what existing rules work; what needs tweaking; where (if at all) are new rules required?

We see benefit in introducing proportionate and tailored new listing rules for ICOs, to establish requirements on disclosure and information for investors at ICO which would, if proportionate and appropriate, provide greater consistency and transparency in the market and ensure a more level playing field for those exchanges who already apply their own screening for crypto-asset listings as well as providing protection for investors. Our recommendation is that regulations for crypto-assets should avoid stifling the ICO market before it has had the opportunity to develop but that some regulation on listing information would help strengthen confidence, fair competition and transparency in the market. This may need adjustment over time, but that should not prevent an initial set of rules being created.

Any framework also needs to take account of the developing use of ICOs and tokenisation: ICOs are an emerging source of early-stage venture capital for start-ups and SMEs across the economy. They can offer retail investors fractional exposure to start-ups as well as liquidity compared to traditional venture capital. Third party data indicates that the UK ranks fifth globally, by funds raised, with 514 companies having raised c.\$1.5bn, an average of \$2.9m each,²¹ illustrating the potential of this market. However, regulatory reforms for the crypto-assets sector, including current proposals on financial promotions, will significantly reduce the opportunity for early stage companies to fund their business plan via an ICO in the UK. If other countries provide more attractive rules for ICOs than the UK, there is a risk that start-ups looking to access the ICO market will locate elsewhere.

Alongside these reforms, the UK's "maybe it is, maybe it is not" approach to determining whether or not tokens amount to securities needs to be eliminated and replaced with a coherent policy-based approach which addresses the questions properly. Under any such new approach, a firm which complies with the above-proposed new disclosure rules for ICOs should not be taken to have infringed applicable prospectus or securities offering laws.

6.2.1.4 Custody

Custody is an important area for the security of assets and consumer confidence, not least in terms of rules which provide for segregation and records of customer assets, reporting to customers and a clear approach to situations where a custody provider goes into administration. Legal clarity for this and other situations is needed, building on existing best practice. This is an area the UK Government is already looking at in relation to systemic stablecoin firms and this may provide a basis for extending the regime to a wider group of crypto-assets.

6.2.1.5 Stablecoins: e-money regime

Stablecoins already serve as crucial linchpins and safe havens in the emerging Web3 ecosystem. However, if a consumer or business wants to hold value or make payments in stablecoin, they need to be sure that the token they are using is stable in practice, as well as in name. Well-calibrated guardrails for stablecoin issuers and holders should reinforce the vital role of stablecoins in digital markets. In developing a stablecoin regime, policymakers should ensure regulatory oversight of issuers, robust reserve requirements for issues, openness and transparency over the composition of those backing assets, and protections for stablecoin users.

HM Treasury's broad approach of applying the existing e-money regime to stablecoins (for which the Financial Services and Markets Bill provides enabling powers) is a sensible approach since it applies a familiar regime and will look to where this may need to be tweaked or tailored. Given the issues with stablecoins (particularly synthetic stablecoins) in the market this year, introducing this legislation should be a priority. Whilst the PSR and FCA may not acquire the power to supervise until the Financial Services and Markets Bill has Royal Assent in 2023, we would encourage the regulators to press on with engaging with industry to test possible approaches and to consult now on proposals to be implemented once the necessary statutory powers are in place. A distinction should be considered between fiat-backed stablecoins, crypto-backed stablecoins and algorithmic (or synthetic) stablecoins, and also between non-custodial and custodial arrangements.

6.2.1.6 Net zero

There is rightly concern about the carbon emissions associated with some forms of crypto mining. Similar issues of emissions and energy usage need to be tackled in the broader technology market, for example in terms of data centres, and the energy consumption of certain AI and quantum computing solutions. As with other areas, rather than creating specific new

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rules for crypto-assets, the starting point should be to identify existing rules that can be applied or tailored. One option would be to apply the same rules as apply to and are being developed for asset managers, large corporates and banks in the UK: there should be requirements for climate risk disclosure and (in future) plans to align with net zero targets.

6.2.1.7 A comprehensive review

In the longer term – starting soon – a review is needed of all regulation by the financial regulators (including the Bank of England, FCA, PRA and PSR) to identify which rules should apply directly to digital assets and digital finance, and which rules need tweaking, and where new rules may need to be developed. This work should be carried out in consultation with industry experts and demonstrate sufficient regulatory coordination. This should then form the basis of a transformation roadmap to be implemented over the next five years.

6.2.2 Fit for the future: enabling innovation

Regulations, and actions by regulators and policymakers, also play a critical role in creating new markets and in enabling innovation. This may be about the regulatory underpinnings that enable a new market to develop, providing the framework for new market infrastructure, creating a platform for new products, or regulating to open up access (e.g., to data). We have identified a number of areas to be pursued in this context:

6.2.2.1 Regulation of systemic stablecoins

Work underway by the Bank of England (and enabling powers in the Financial Services and Markets Bill) will provide stability mechanisms for significant stablecoins, with regulatory supervision by the FCA and Bank of England providing a basis for market confidence. Plans for the regulation of systemic stablecoins (arguably like Tether) should provide verified, standardised

approaches to capital assets underpinning stablecoins (and would probably, at least for now, rule out algorithmic stablecoins). This would provide the assurance that the market has realised (belatedly) it currently lacks. Globally, the regulation of stablecoins is now inevitable, and once in place it will enable the transformation of payment systems. The UK has been at the forefront of payment innovation and pressing on with the Government's vision in this sphere creates the opportunity to maintain this new wave of transformation. This will enable the widespread adoption and usage of stablecoins as private digital money, transforming payment systems. In developing and implementing this regime it will be critical that the Bank of England builds in competition safeguards to ensure that the stablecoin market is not dominated by just a few global monopolies and that new entrants are able to enter the market.

6.2.2.2 CBDC

Alongside systemic stablecoin supervision, the Bank of England should introduce a CBDC. A wholesale currency has the potential to transform payments and increase productivity in corporate markets as well as in transactions between financial institutions; implementation should widen significantly beyond those who can currently access the Bank's RTGS system. As indicated above, we believe that a retail CBDC would stimulate innovation in a variety of markets, enable the development of financial inclusion solutions and reduce the costs for small businesses. Whilst this may need to be introduced more incrementally than a wholesale CBDC, it will be a significant signal to innovators in terms of the UK being seen as a base for financial transformation, so a decision to proceed soon will be important. Design and implementation will need to enable competition and diversification, and innovation in service providers (acting as intermediaries between a bank's ledger and the end customers).

CBDC must be part of a diversified market, complementary to stablecoin and other digital assets and should not crowd out these other forms of digital assets. It is worth noting that an unlimited, direct retail CBDC (even where delivered via intermediaries), where

the general public could call upon the central bank for unlimited amounts, is less likely to be feasible given its impact on stability, deposits and central bank resources (deposits would migrate to the central bank). A direct retail CBDC would likely therefore need to have a value limit or cap. CBDC, stablecoin and crypto-assets will each be better suited to particular market transactions. In some cases, a CBDC or stablecoin may provide the best 'on or off ramp' to other digital assets.

6.2.2.3 Financial market infrastructure

Regulators can enable the development of blockchain technologies by capital markets infrastructure providers. The right framework and regulatory support will help accelerate their adoption and the development of the UK as a centre for digital financial systems. This may require new or adapted regulatory models, to evolve as infrastructure evolves. The UK government's plans for a FMI sandbox, including powers in the Financial Services and Markets Bill, are an important next step (see below). The UK should at the same time adopt a more graduated approach to regulation, to avoid placing too much reliance on sandboxes, which themselves can act as a gateway to the regulatory sphere (in the present environment when the FCA is failing to meet statutory deadlines for full authorisation applications). This in turn slows down developments and gives officials undue discretion as to which businesses should be allowed to participate in the regulated environment.

6.2.2.4 Tokenised Venture Capital

Regulators should also assess what may be needed to enable the further development of tokenised Venture Capital funds, identifying what existing rules would apply to a tokenised Venture Capital fund and whether there are any gaps that would require additional regulation or flex in the rules. This should include, for example, identifying perceived risks and relevant categorisation of financial promotion rules, since tokenisation may enable a secondary market which could in turn increase liquidity and reduce the risk profile of such investments.

6.2.2.5 Digital ID

The notion of a digital ID – or a 'digital financial passport' – is cited by campaigners and activists in the financial inclusion space as having great potential to reduce financial exclusion. The Data Protection and Digital Information Bill currently before Parliament would establish a regulatory framework for the provision of digital identity verification services in the UK and enable public authorities to disclose personal information to trusted digital identity providers for the purpose of identity and eligibility verification. This will enable the introduction of digital ID schemes, including some trust frameworks currently being piloted, and should create new opportunities for innovation (including easier customer on-boarding), increase competition among financial services providers, address financial exclusion and provide greater security for existing and new products. To support and accelerate this, the Government should mandate public sector data owners to allow access for trusted digital identity providers (with safeguards) to their data sets for digital ID – in particular, the Driver Vehicle and Licensing Agency (DVLA) to enable identity verification, as well as His Majesty's Revenue and Customs (HMRC) and the Department for Work and Pensions (DWP) (which can also help build credit profiles for people).

Digital ID is also emerging as an important component of the future roll-out of a CBDC. It would provide user verification for digital assets which would also support further safeguards in the crypto-asset market. Digital ID is therefore a really critical part of the infrastructure of digital financial services and systems, and progressing the legal underpinnings for the use of digital ID is critical in enabling further innovations.

More generally, commonly accepted digital identity protocols – perhaps supported by blockchain – could drastically reduce the compliance cost burden of financial services firms as all could jointly share compliance costs as opposed to each firm repeating tasks done by others, as is the case today.

In the corporate / SME finance market, there are further steps Government can take to advance (corporate) digital identity. The Companies Act could be reformed to better enable digital signatures and a central database of beneficial ownership information which firms can rely upon, for example.

6.2.2.6 Data and Artificial Intelligence:

'Crypto' technology will not be applied to financial systems in isolation from other technological developments or industries. Crucially, it will be combined with AI and machine learning. The UK Government has published a policy statement on its approach to AI regulation, setting some core principles which sector-based regulators (such as the FCA and PRA) will apply to the firms that they regulate. This approach should balance ethical considerations and consumer protection with innovation and competitiveness. Developing a clear and proportionate AI approach for financial services will be another critical part of the UK's framework for digital finance.

Access to data is also critical. The Government's proposed Data Protection and Digital Information Bill provides the basis for sector-based 'smart data' schemes, enabling secure and consented sharing of customer data with authorised third-party providers. This builds on the effective Open Banking initiative. Overall, properly implemented, these steps should improve access to data held by organisations and corporations, subject to the customer's consent, allowing for a much wider range of data driven and programmable digital assets across the financial system.

6.2.3 Innovative, agile regulators

As well as the legal basis for regulation and the detailed regulatory rules, a supportive regulatory environment also depends upon swift, proactive authorisation processes, supervision and enforcement. The way in which regulators operate needs to change if the UK is

to be the global centre for digital finance. This is about the way regulators act, how they behave, their operating models, and their culture, capacity and capability. Regulators being responsive or processing applications expeditiously (or at least within statutory deadlines) does not imply a lack of thoroughness. It is possible for a regulator to be thorough and rigorous in processing an authorisation application, but also to be responsive, hard-working and efficient. It is also important that regulatory approaches support the adoption of RegTech and SupTech – ensuring regulation 'bakes in' or enables technological solutions to regulatory controls, compliance and reporting. Digital transformation of financial systems will require a parallel transformation of the regulators.

6.2.3.1 A 'beta testing', platform regulator approach

Rigid, codified rules and approaches will not support innovation nor protect stability or consumers as new technology is combined and used in the financial system. Regulators will need to work collaboratively, including with industry, and flexibly. That includes working with start-up firms, both inside the sandbox and scalebox environments, and also increasingly working with established firms on innovation and, crucially, developing a more 'systemic' sandbox that tests widespread market applications at scale across numerous firms. This means trying out regulatory approaches, testing them in real time (and in live markets) and adjusting the rules in the light of experience (and data driven monitoring). This is the concept of the 'regulator as a platform' – applying the tech model to regulatory activities. The new approach will require the regulators to learn alongside industry. It goes beyond current sandbox models – which are a form of 'hand holding' whilst new businesses develop and adopt existing regulatory rules. As above, sandboxes bring with them the drawback that accessing them can be controlled by risk-averse officials and is in any event limited. A more graduated approach to regulation should be the default, based on the risks that arise given the number of customers and amount of risk a particular provider presents to those customers and the market.

Nevertheless, the UK Government's proposals for a 'sandbox' for FMI (with powers in the Financial Services and Markets Bill for HM Treasury to establish individual sandboxes) are important and welcome. These would allow HM Treasury to 'turn off' and/or modify certain onerous or inappropriate regulations as they apply to new forms of financial infrastructure, permitting the testing of new systems in a contained environment overseen by the appropriate regulator (Bank of England or FCA) and evolving the FMI regulatory framework to accommodate new technology and practices.

6.2.3.2 Collaboration and engagement with industry

There must also be a wider collaboration with industry more generally, not least because regulatory controls can be built into programmable assets and market infrastructure. The FCA's 'Crypto Sprint' earlier this year was an important first step. This brought together the regulators and industry to tackle a number of regulatory and policy questions and saw the FCA embracing innovative approaches and engaging seriously with the crypto ecosystem. Regulators need to continue to do much more of this. The Government has also said it will set up a new Crypto-asset Engagement Group, bringing industry and government together, chaired by a minister. This needs to be the basis for meaningful dialogue on strategy and delivery. With a diverse and ever-evolving ecosystem this should be supported by other engagement, to ensure breadth and depth of industry input.

6.2.3.3 RegTech and SupTech solutions

Digital assets and digital FMI can provide the basis for a revolution in regulatory compliance and supervision, with RegTech and SupTech solutions enabling automated regulatory controls and reporting. Programmable assets and markets can build in regulatory triggers and, through machine learning, it is possible to develop more sophisticated approaches

and evolve risk assessments. The regulators need actively to design and encourage these RegTech and SupTech solutions, as well as collaborate with technology companies on potential products. The FMI sandbox should have, within its scope, the testing of RegTech tools and programmable regulatory controls. In developing regulatory regimes across the range of areas identified above, the regulators should engage with industry at an early stage and on an ongoing basis to identify the potential for digital regulatory solutions.

6.2.3.4 Regulatory skills and capability

In the past, regulators have tended to have an 'innovation team' separate from the teams that develop policy and engage in supervision and enforcement. It is welcome that the FCA created a crypto policy team and is starting to develop more technology know-how and industry understanding in some supervisory teams. We need to move now to a position where every supervisory team at the FCA contains individuals who understand digital assets and technology and are designing rules that work in a digital environment whilst developing supervisory tools that utilise digital capability.

6.2.3.5 AML authorisations: getting the basics and processes right

Finally, as new technology falls within the regulatory perimeter and new firms line up to apply for regulatory authorisation, we must see effective 'onboarding' and timely and efficient authorisations processes. The recent report by HM Treasury and the City of London, *State of the Sector: annual review of financial services 2022*,²² highlighted data showing that statutory deadlines and the FCA's own service standards for new approvals were often missed by the regulators. We have heard numerous stories raising concern about the AML authorisation process for crypto firms, with churn in the

²² See chart 7, page 29: assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1092788/State_of_the_sector_annual_review_of_UK_financial_services_2022.pdf

teams running the process, a backlog of applications and purported resetting of the clock to avoid going beyond agreed deadlines. We also know from talking to the FCA that there was a mismatch in expectations on the part of some crypto firms, and in many cases their applications showed a low level of understanding of the requirements around compliance and governance.²³ We would encourage the FCA (and other regulators) to develop a better pre-application process and guidance to enable firms to understand better what will be expected and what they will need to demonstrate. KPIs for approval processing need to be met.

6.3 A unique opportunity for the UK

Across all areas, the UK needs to reinvigorate its legal and regulatory system. Much of the latter is inherited from the EU. There is now a unique opportunity to review, without criticism, all existing rules to test whether they are fit for purpose, given the different approach to law and regulation in the EU from that of the UK. There is an ability to rewrite EU-inherited rules along common law lines, with fewer, clearer laws, upholding the highest of standards with less red tape.

In terms of enabling regulation to allow technological transformation to take place, and in developing new operating models for the regulators themselves, the UK is now able to develop its own unique approach without being constrained by the policy views of or lack of agreement with, external officials or other governments. The UK can act more decisively and faster than other European jurisdictions; it can draw on points of good practice elsewhere without the need to adopt any model lock, stock and barrel; and it can experiment and flex regulatory rules as markets and products develop. Enabling innovation and establishing the UK as the global centre for digital finance should be the guiding star for any review of existing law and regulation.

²³ see: *Crypto and the FCA's Authorisation Gateway: lessons for firms*: www.innovatefinance.com/blogs/crypto-and-the-fcas-authorisation-gateway-lessons-for-firms/services_2022.pdf

7. Wider UK policy and institutional issues

We have focused in this submission on the regulatory and legal changes and approaches needed to make the UK the global centre for digital finance. We have included some specific examples above of policy initiatives that must form a part of this, such as Digital Identity, AI and Smart Data. A wider programme of work and coordination will be required across other policy areas and regulators. This should include:

- Linking to the Sir Douglas Flint **review of digitisation of shareholdings**. This could provide the basis for an initial digital market, with greater transparency of ownership and a vibrant secondary investment market, enabling wider participation in shareholding and attracting global capital. This should link in to the outcomes of the LawTech Delivery Panel's consultation on the issuance and transfer of "digital securities" (shares, bonds and other debt securities which are constituted by reference to a blockchain or distributed ledger) under English law (referred to above).
- **Reviewing existing regulations in other sectors** to support and enable smart contracts (digital assets and decentralised records).
- **Taxation**. HMRC has begun to review tax rules as they apply to crypto-assets. There is a risk of a mismatch between how the regulators approach different types of crypto-asset and how the tax authorities view them. HMRC's approach towards treating crypto-assets as similar to shares or securities will need to evolve as a wide variety of products and new types of assets come to the market. This needs to align with the prudential and conduct regulatory approach to those products and assets.
- **Other regulators** will also need to develop approaches that align to a common UK strategy. This includes the Information Commissioner's Office, for example, in terms of how data protection rules are applied.

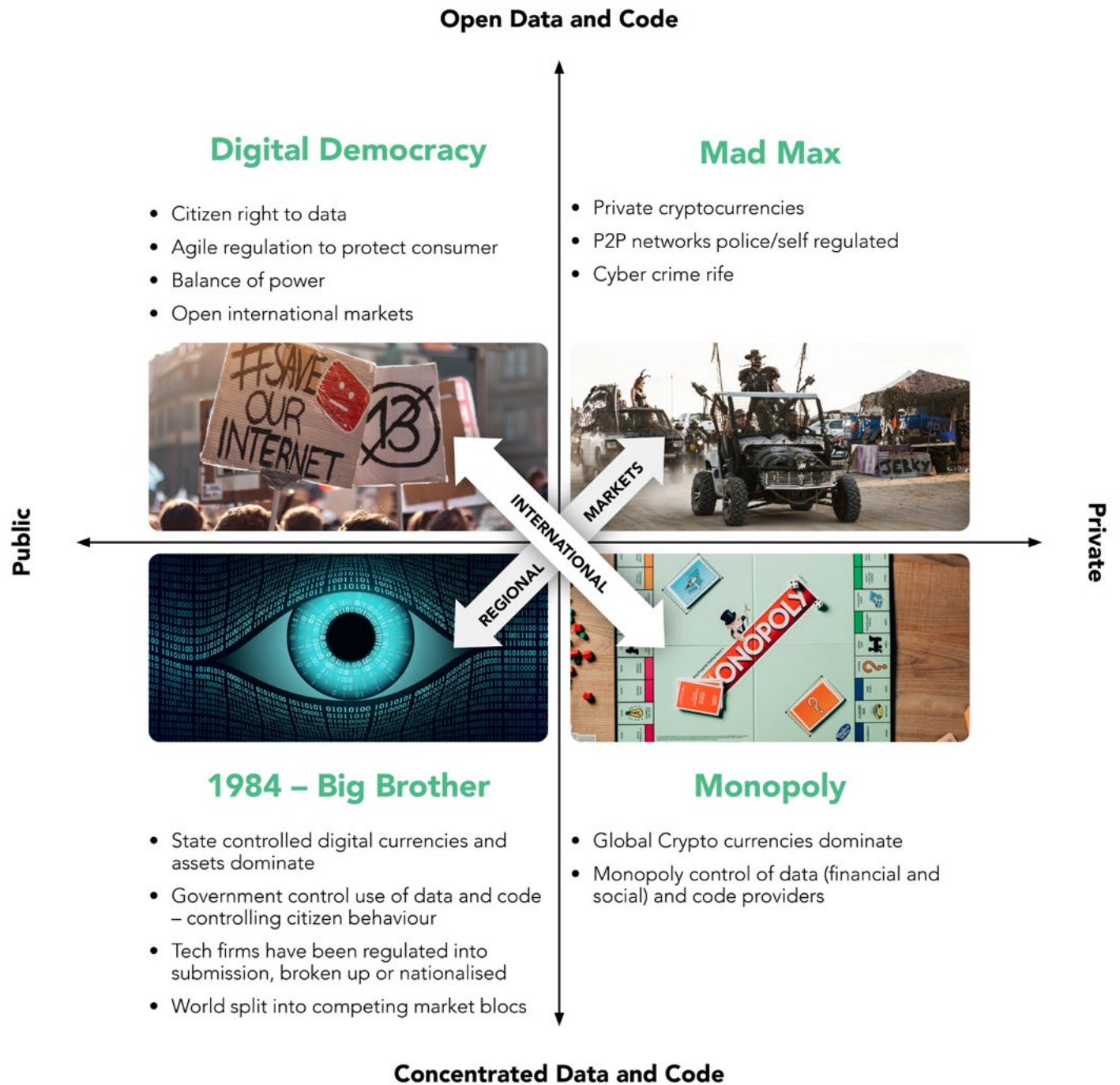
- Incorporating digital finance into **trade policy**. The development of recent trade agreements covering issues of data localisation is an important first step. More widely, this is an area that would benefit from regulatory cooperation.
- A robust approach to **competition**. There will be commercial winners and losers as finance is transformed by digital assets. This calls for a strong competition law environment, and the regulators should not side with incumbents. There are, and will be, vested interests which highlight the risks of digital assets. There are indeed risks, as well as opportunities, but these are risks to be managed, not risks that should be allowed to obstruct progress.
- Continue to make the UK an attractive **location for global investment**, building on the UK's existing position as the second biggest destination for investment in FinTech.
- Ensure the **skills, education, higher education and immigration** systems all work in synch to develop and attract the homegrown and global talent needed.

We do not consider here the question of whether crypto-assets businesses should come into scope of the Financial Services Compensation Scheme (FSCS) and/or whether disputes in relation to those assets should fall under the jurisdiction of the Financial Ombudsman Service (FOS). These questions are ones which we consider would be premature and require, first, the development of the regulatory framework and, second, a more established market, before they should be considered. It is however important that firms disclose to consumers clearly the lack of FSCS or FOS protection, where this is the case, and for regulators to ensure that regulated firms do not circumvent these regimes inappropriately. Currently, the FCA identifies crypto-assets in the consumer market as high-risk investments, requiring 'caveat emptor' warnings, and given this and the volatility of some products, it would be inappropriate for FSCS and FOS to apply to crypto-assets for example.

8. Conclusions: building a digital democracy and global centre for digital finance

8.1 Possible futures

We cannot predict the future but we can envision different possible scenarios, the drivers behind them, which we may wish to aim towards. Looking at the future of digitalisation, we can paint four very different – and very extreme – pictures of future worlds. Note these are for illustrative purposes, intended to provoke debate, and are not predictions.



“Mad Max”

Some would like to see a totally decentralised world, with no state controls. Whilst DeFi does not, in itself, lead to this model, applying a decentralised philosophy to everything could create a world that may not offer clarity, consistency or legal certainty for citizens or institutions.

Monopoly

As with any new technology, there is potential for private monopolies to develop. The amount of power and control created by holding financial data in a few private corporations could be immense.

“Big Brother”

Some governments are approaching the digital economy and digital finance as a way of strengthening State control over financial markets, the economy and even citizens.

Digital democracy

There is an alternative approach. One which combines the market with proportionate regulation and protects consumers, promotes competition, and provides legal certainty and impartiality. Various jurisdictions will develop different models of varying digital democracy. The UK, with its common law basis and relative political stability can be a beacon for digital democracy. Together with our track record in financial services and financial innovation this can form the basis for the UK to be the global centre for digital finance.

This should be the pole star for the UK: to be the world’s leading digital democracy and the global centre for digital finance.

8.2 How do we get there?

The UK government and regulators have taken tentative steps forward. Legislation before Parliament and regulatory approaches provides for some of the foundations. The entire approach now needs to be sharpened, to buttress a more comprehensive and coherent strategy, and accelerated to make faster progress, with an actionable plan.

Looking particularly at the legal and regulatory underpinning, which will form the unique basis for the UK, we would suggest the goals set out in the table on pages 27 and 28 of this response for the next six months (now), 2023 (near) and 2024-5 (next) – noting that all of these need to begin now.