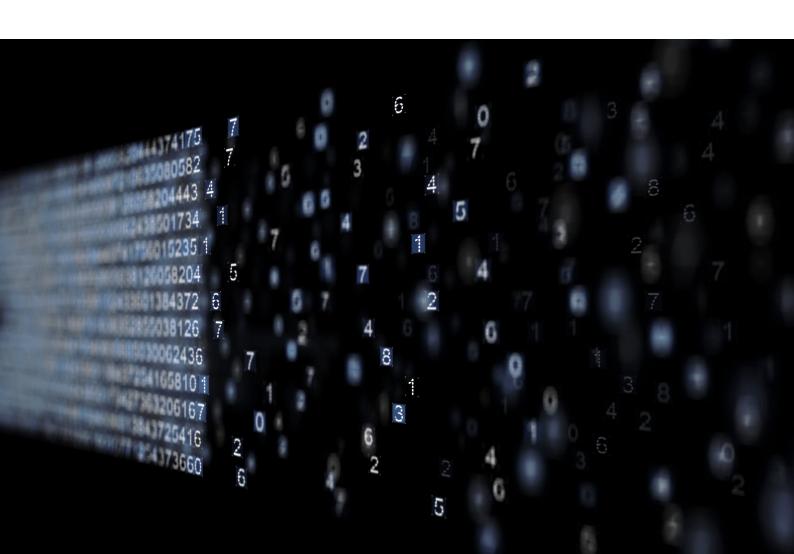
CRYPTO-ASSETS

UNLOCKING THE POTENTIAL THROUGH REGULATORY REFORM



SPEED READ

- Market activity in crypto-assets is increasing rapidly. 2020 research by Evertas estimated that 26% of institutional investors and 32% of hedge funds expect that pension funds, insurers, family offices and sovereign wealth funds will "dramatically" increase their level of investment in cryptocurrencies over the next five years¹.
- The EU and UK regulatory authorities are looking to implement formal regulations to control activity in the market by 2024; the EU via the Markets in Crypto-Assets (MiCA) Regulation.
- Firms across the value chain need to act now to be market ready and optimize the opportunity ahead.
- Their solutions should also form the foundation for expansion across other digital and tokenized asset classes as client demand grows and markets evolve across all regions.

^{1. &}lt;a href="https://www.evertas.com/blog/research-reveals-institutional-investors-plan-to-increase-their-allocation-to-cryptoassets">https://www.evertas.com/blog/research-reveals-institutional-investors-plan-to-increase-their-allocation-to-cryptoassets

CRYPTO-ASSETS - UNLOCKING THE POTENTIAL THROUGH REGULATORY REFORM

In this paper we explore how regulatory reform in the European Union – through the Markets in Crypto-Assets (MiCA) proposals – and the UK is looking to unlock the potential of crypto-assets and establish a regulated and structured market ecosystem that achieves parity with more traditional financial instruments such as equities, bonds, structured products, credit and rates derivatives. It is also seeking to offer investors with protection while instilling confidence in crypto-assets and providing regulators with the ability to detect market abuse and ensure market stability.

The paper also outlines:

- The potential of the new asset class
- The current barriers
- The regulatory landscape in the EU and the UK
- Implications for the market
- What the industry should be considering.

EMERGENCE OF A NEW TRADEABLE ASSET CLASS

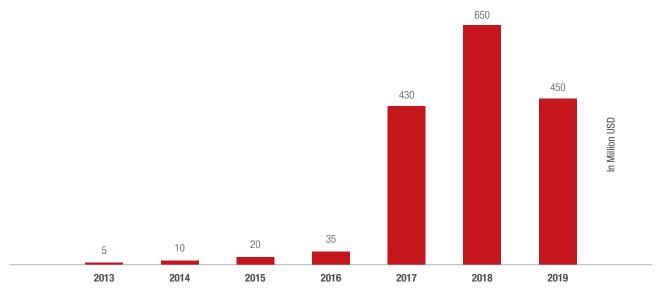
Crypto-assets, or more precisely cryptocurrencies, have been a leading global hot topic in recent years. Trading in cryptocurrencies has intensified at present, creating levels of volatility that have attracted widespread attention from the public and the mainstream media alike.

Since the introduction of Bitcoin in 2009 we have experienced a slow and steady expansion of competing cryptocurrencies such as XRP, Ethereum, Litecoin and Polkadot, to name some of the better known and more popular examples. The markets were initially completely OTC, where buyers needed to seek out sellers proactively and deal directly. However, over time we have seen the introduction of cryptocurrency exchanges where liquidity is traded on an anonymized basis between buyers and sellers. This has led to a competitive marketplace where the exchanges (there

are estimated to be over 500 facilitating trading in spot and derivative contracts) compete for liquidity creating investment arbitrage opportunities.

However, this has resulted in infrastructure fragmentation (via the use of multiple distributed ledger technology platforms - native or white labelled to the underlying market - with little to no interoperability, complicating the settlement and custody process, increasing costs and operational risk as investors and their intermediaries need access to multiple wallets either directly or through a custody provider). Furthermore, this has all happened without a holistic regulated framework to fully govern and supervise issuer, investor and service provider responsibilities and behavior.

TABLE (A) GROWTH OF BITCOIN IN USD (MILLIONS) BETWEEN 2013 AND 2019



SOURCE: DBS, BLOOMBERG

The speed of Bitcoin market capitalization compared to other digital assets has been incomparable. With a 1.5 billion USD investment by Tesla and a wave of new institutional interest, the market capitalization of the world's first and largest cryptocurrency has surged past 1 trillion USD.

Whilst trade volumes are not yet in the same league as those for the more established markets in financial instruments, there

is enough evidence to suggest that market growth is trending towards levels that potentially represent systemic and market risk and a threat to financial stability. The EU and UK have both cited the emergence and growth of stablecoins as being an example of a potential threat to financial stability if the current growth trends continue without a regulatory framework.

TABLE (B) CRYPTOCURRENCY EXCHANGE TRADED VOLUMES (IN USD MILLIONS) JANUARY 2020 - JANUARY 2021

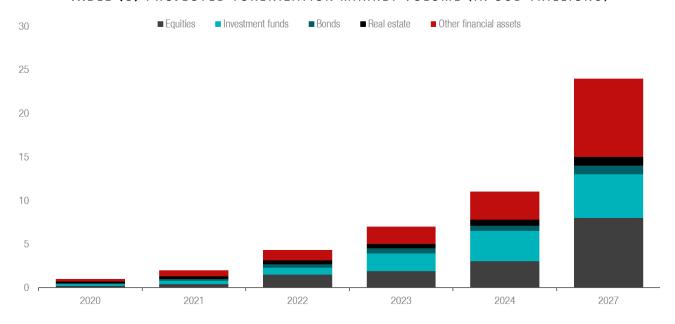


However, the appetite is not confined to cryptocurrencies. There is a much broader interest in a range of digitized / tokenized asset classes (per Table C below) and it is anticipated that these markets will experience substantial growth over the next few years.

Digital assets are shaping the future of financial services and will become a key part of the 'new normal'. The projected

tokenization market volume is set to increase from 0.2 trillion USD to 24 trillion USD between 2020 and 2027. Banks and other market intermediaries need to act now to stay ahead of the curve and fully exploit the opportunity.

TABLE (C) PROJECTED TOKENIZATION MARKET VOLUME (IN USD TRILLIONS)



BARRIERS TO MAINSTREAM ADOPTION

The financial rewards can be highly attractive but there are significant risks attached to operating in a largely unregulated market where the asset class is exclusively based on a specific type of technology. The main risks are cyber threats, fraud, conduct and theft in nature. These include lack of ownership rights in the event of issuer insolvency; double spending (whereby crypto-assets are stolen but the transaction is made to look legitimate or is erased by the perpetrator giving them untraceable ownership) threatening the integrity of market liquidity; and a lack of liability preventing recourse for damages resulting from negligence, false and misleading information or unethical behaviours. It is for these reasons that institutional investors and their intermediaries have largely avoided wholesale participation in this market.

The risks do not apply in equal measure across all cryptocurrency exchanges. Some — such as Kraken and Coinbase — offer protection by stipulating that their operators are regulated

entities or have received specific authorization to operate a centralized trading platform under existing national regulation. Others operate under no formal authorization due to an absence of a regulatory framework to define and govern crypto-assets and their corresponding trading mechanisms – examples include Coinfloor and Blockchain.com in the UK.

However, cryptocurrencies are regulated in the UK for anti-money laundering purposes and they have obligations under the EU's Fifth Anti-Money Laundering Directive to perform KYC/AML checks on platform participants (more on specifics of that later in this paper). Given this backdrop, as noted institutional investor involvement has been limited to date, and is mainly evident through exposure to derivative products such as CFDs, futures and options rather than trading in spot markets and physically owning the underlying tokens.

WHAT IS THE MARKET INVESTMENT APPETITE?

According to research conducted in 2020 by Evertas, the crypto-asset insurance firm, it is estimated that 26 percent of institutional investors and 32 percent of hedge funds expect that pension funds, insurers, family offices and sovereign wealth funds will "dramatically" increase their level of investment in cryptocurrencies over the next five years².

However, this is predicated on the need to have the right regulatory and front-to-back market infrastructure in place that provides institutional investors with the confidence and safety to invest in crypto-assets.

The EU regulatory reforms and their UK equivalent are looking to address the risks outlined earlier and provide a strong foundation to encourage the creation of market eco-systems to promote and facilitate crypto-assets as a mainstream asset class and contribute to wider economic objectives (such as the EU's strategy to drive the digital finance economy as a critical part of the Capital Markets Union).

^{2.} https://www.evertas.com/blog/research-reveals-institutional-investors-plan-to-increase-their-allocation-to-cryptoassets

REFORMING THE REGULATORY LANDSCAPE

Regulators around the world have been dealing with a number of key concerns regarding crypto-assets. One of the main issues is how to classify crypto-assets as an asset class or financial instrument but we have yet to achieve global consensus as views continue to differ. This disconnect has been highlighted by recent events in the US, where the SEC asserts that Ripple's XRP cryptocurrency is in fact a security.

Classification is a critical factor in determining several important outcomes for investors such as ownership rights and obligations (including insolvency), financial accounting and tax treatment and how assets can be leveraged as collateral for financing or asset-exchange purposes. This also leads to the question of portability of assets on a cross-border basis and how the underlying crypto-asset is recognised and treated by different jurisdictions to support financing or investment operations.

THE EU'S REGULATORY RESPONSE

The EU has adopted a holistic strategy with a view to promoting growth of the digital finance economy — this is seen as an intrinsic part of the EU's overall Capital Markets Union goals to increase access to and facilitate the flow of capital across all EU jurisdictions through the removal of internal market barriers and the creation of a level playing field.

The EU has already enacted some key measures that will lay the foundations for crypto-asset growth.

Effective since 10th January 2020, the Fifth Anti-Money Laundering Directive (**AML5**) created a system of registration for crypto-asset businesses. Also, in September 2020 the European Commission introduced an expansive new Digital Finance Package which is set to transform the European economy in the coming decades.

More importantly, the new regulatory framework includes a comprehensive legislative proposal on crypto-assets in the shape of the **Markets in Crypto-Assets** (MiCA) Regulation, which

aims to provide a framework for crypto-asset issuers and service providers (including market infrastructures) serving EU markets.

MiCA aims to harmonize the European framework for the issuance, trading and safekeeping of various types of crypto tokens as part of the European Union's Digital Finance Strategy, aligning to wider EU policies on blockchain technology and the Security Union Strategy, developing a legislative framework to govern how digital technologies are used to issue, exchange, access and safekeep financial assets.

Its **four** broad objectives are:

- **I. Create legal certainty** there is a need to create a framework to define the legal treatment of crypto-assets and close out gaps in existing EU financial services legislation.
- **II. Support innovation** provide a fair and appropriate framework to promote digital innovation and adoption of Distributed Ledger Technology (DLT).

III. Investor protection and market integrity – to mitigate risks associated with other types of traded asset classes and close gaps in existing EU financial services legislation.

IV. Ensure financial stability — although crypto-assets are classified as an emerging market and continue to evolve, the potential exists to become more widely traded and systemic and therefore the asset class requires further market safeguards to mitigate associated trading risks.

MiCA also responds to other key developments that could disrupt the financial stability of the EU markets and threaten the principle of a single marketplace. These include the emergence of Facebook's proposed cryptocurrency Diem (formerly Libra) and the adoption of local rules by EU member states to govern crypto-assets prior to handing over their administration to various national regulators, in the process creating further complexity and introducing more barriers to entry.

WHAT DOES MICA COVER?

MiCA covers the issuance, trading, settlement, safekeeping and collateral management of asset referenced, e-money and utility tokens and other types of crypto-assets not classified under existing regulation such as MiFID II, 2018's second Electronic Money Directive (also known as the E-Money Directive or EMD2) and PSD II.

It provides for the full range of regulatory measures and conditions that govern the entire functioning of a market including:

- The authorization of an issuer and their ongoing regulatory and prudential obligations.
- Approval to issue a crypto-asset to the public and admittance to trading on a regulated trading platform and the rights to withdraw approval if conditions are not fully and consistently met.
- Investor rights and obligations including redemption, issuer liability and issuer insolvency.
- Authorization and ongoing supervision of crypto-asset service providers.

- Provisions for outsourcing arrangements with third parties.
- For trading venue operators, rules for admitting and suspending crypto-assets and market participants, pretrade and post-trade reporting, and operating rules.
- Requirements for regulating market liquidity and price discovery on a trading platform.
- Settlement of crypto-assets will be mandated in real-time on T+0.
- Insider dealing and market abuse.
- Rules for the acquisition of a crypto-asset issuer and service providers.
- Powers conferred on national regulators, the EBA and ESMA to sanction and impose fines for non-compliance with the Regulation.

There is no formally agreed timetable for implementing MiCA as yet, but the EC is targeting adoption by 2024.

RECOGNIZING DLT AS SYSTEMICALLY IMPORTANT

The EU fully acknowledges the intrinsic role that DLT plays in the digital asset landscape and is inclusive of all types of digital and tokenized assets (and not just crypto).

The EU's Digital Finance Strategy, which includes a Distributed Ledger Technology Pilot Regime, sets out the requirements to mitigate risks associated with DLTs. These include the need to have a clear business plan; rules on the functioning of the DLT; safekeeping arrangements (including provisions around cryptographic keys); information obligations when it comes to

clients; and an exit strategy by market participants – such as investment firms, market operators (regulated trading venues) or CSDs utilizing DLT as a securities settlement system that collectively form the DLT market infrastructure. The intention is to pave the way for the market to adopt new and existing cryptobased technology and to operate under a more clearly defined and consistent regulatory framework.

WHAT IS THE UK'S RESPONSE?

The UK's HM Treasury issued its consultation paper in January 2021 (with the consultation period closed on March 21, 2021) to call for public evidence supporting the need to implement a regulatory framework identifying the same types of risk to consumers, market and financial stability highlighted by the EU. Its main objectives broadly mirror those of the EU, namely:

- **I. Protecting financial stability and market integrity** maintaining the appropriate regulatory standards, ensuring infrastructure is operationally resilient and that safeguards are in place to mitigate any risks to financial stability.
- **II. Delivering robust consumer protections** ensuring consumers benefit from the same of level of protection they would when other regulated instruments are being used for the same purpose (e.g., payments).
- III. Promoting competition, innovation and supporting UK competitiveness continuing to encourage and support \mbox{UK}

fintech firms, and ensuring consumers and businesses have access to a variety of high-quality services and products.

The first consultation relating to the promotion of crypto-assets concluded at the end of October last year. The second phase of the consultation addressed in the current paper concerns the overall regulatory framework to promote innovation and competition, leverage the benefits of DLT whilst mitigating the risks mentioned above.

The UK's definition of a crypto-asset is similar to that set out by the EU, recognizing the same types of crypto-asset and acknowledging that e-money tokens and security tokens are already covered in UK legislation and therefore, subject to regulatory scrutiny by the FCA.

The UK also benefits from the adoption of **AML5** as it was duty-bound to do as an EU member state at the time of its adoption.

WHAT DOES THIS MEAN FOR THE MARKET?

The EU's Markets In Crypto-Assets Regulation and its ultimate UK equivalent effectively create a new capital markets opportunity. The challenge is that this market acceleration is occurring without an existing infrastructure that complies with the proposed Regulation or offers a track record that might serve as a benchmark to compare market performance and service quality based on criteria such as reputation, technology and operational capabilities.

This means that everyone in the value chain will essentially be starting from the same position.

Investors need to have access to service providers who can facilitate trading, settlement and custody of crypto-assets and ensure that their technology infrastructure is capable of connecting to DLT networks to send and receive trade event and lifecycle messages.

Issuers will need to seek authorization from their local regulator to receive approval to offer crypto-assets to the public and list with a trading platform to facilitate secondary market trading (where appropriate). Issuers will need access to service providers to facilitate the issuance and placement of crypto-assets and to safekeep funds and reserve assets held against the underlying issuance.

Trading venue operators (exchanges and banks and brokers who operate MTFs under MiFID II regulation) intending to admit crypto-assets to the central order books will need to apply for authorization to their regulator. This includes defining a set of admission rules for issuers and market participants, operating rules, and a connection to a CSD that operates a DLT settlement system capable of supporting crypto-assets. Many of their MiFID II obligations — such as pre and post-trade reporting, publication of market service fees and rule book — are also mirrored by MiCA.

Banks and brokers who intend to offer placement, advisory and order execution services must apply for authorization to their regulator to provide these services. Those investment firms offering advisory services must demonstrate to the regulator that the individuals involved are suitably experienced and skilled – i.e. fit and proper – to provide this service. They will also need to connect to trading venues, CSDs and/or custodians to support the trading, settlement and safekeeping of cryptoassets for either own account or on behalf of their clients. The need to maintain their right to continue to provide services will also create additional demands on their compliance framework, notably around market surveillance, insider dealing and market abuse.

Custodians must also apply for authorization from their local regulator to entitle them to offer similar services for crypto-assets. This includes provision of issuing agent, safekeeping and asset servicing services. Further consideration should be given to the adoption of DLT to provide these services and the ability to connect to CSDs that operate a DLT settlement system and facilitate cash settlement — both in digital and fiat form. Custodians will also need to assess the impact to clients requiring services across digital assets and more conventional electronically held assets such as equities, bonds and other transferable assets.

CSDs and custodians acting as **Collateral Agents** who intend to offer the same service for crypto-assets will need to apply for authorization from their local regulator. Again, close consideration should be given to delivering this service on DLT to ensure that the end-to-end processing of a collateral trade is achievable on T+0.

For all EU-based Crypto-Asset Service Providers (CASPs) who are already authorized under existing national regulations, they will need to reapply for authorization under MiCA. The regulation does provide for the adoption of a simplified process to speed up re-authorization for existing CASPs and current authorization remains valid. However, existing authorization is only valid for 18 months after MiCA comes into force.

The **Compliance** functions across all value chain participants will need to be upgraded to ensure that their operational surveillance and supervisory capabilities incorporate all crypto-asset requirements and obligations. This includes staff competence, systems, policies, processes and controls.

Capco believes that firms and market infrastructures do not have the luxury of waiting until the last moment to make the necessary changes to be market ready. This is a brand new market requiring new infrastructure, and firms accordingly need to track the progress of the regulation closely and monitor levels of market readiness between now and 2024 (and of course, beyond as the market scales).

This involves defining, designing, planning and implementing solutions taking into account these critical factors:

- Product and market strategy market role, service scope, location, product coverage.
- Regulatory approvals authorization process and timelines, regulator's readiness.
- Client engagement client service needs, agreements, technology change, client education.
- Service model front-to-back service delivery model market access, service partners.

- Operating model function and organization, location, internal vs. outsourced.
- Staff competency awareness and training, upgrading skills and competencies.
- **Technology** DLT, market and client connectivity, compliance, risk and finance changes.

We also believe that not everyone will wait for the regulation to come into effect before moving into the crypto-asset or wider digital asset space. Opportunities exist today to participate in other forms of digital and tokenized asset classes, and some of the larger custodian banks have recently announced their intentions to launch digital asset custody services across a broad range of asset types.

Therefore it is important for firms to ensure that, whatever their entry point into the world of digital assets, they have the right infrastructure and DLT solutions in place to support the full range of asset types, including cryptocurrencies, e-money tokens, tokenized securities, commercial paper, structured products, investment funds and non-bankable assets, as client demand grows and markets evolve.

HOW CAPCO CAN HELP

Capco is well equipped to support you through every phase of your digital asset and DLT journey. Through our market knowledge, product expertise, strong DLT vendor relationships and business transformation capabilities, we can help you:

- Define your strategy and target operating model
- Assess the impacts to your current state operating model and infrastructure
- Design and deliver client and staff education programs
- Identify and define requirements for new services
- Identify and select new service providers and partners
- Design, manage and deliver your business and technology transformation programs
- Manage your regulatory authorization.

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ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward.

Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and asset management and insurance. We also have an energy consulting practice in the US. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

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