Cryptoassets: market trends and policy proposals

Note written by Marc Truchet (Eurofi)

1. Main characteristics of the cryptoasset market

1.1 Cryptoasset market segments

Cryptoassets are a digital representation of value or contractual rights that can be transferred, stored or traded electronically and which typically use distributed ledger technology (DLT) secured by cryptography or similar technologies.

Cryptoassets include two main categories of assets: (i) unbacked cryptoassets, such as Bitcoin or Ether, that have no underlying asset and no intrinsic value and fluctuate according to offer and demand and (ii) stablecoins, such as Thether (USDT) or USDCoin (USDC) which are designed to maintain a stable value relative to a fiat currency or other reference assets and offer holders the promise that coins can be redeemed at par upon request[1]. This constant value is achieved either by holding backing assets intended to stabilise the value of coins mainly against existing fiat currencies, or through a protocol aiming to stabilise their value[2]. This latter category is known as algorithmic or decentralized stablecoins. Neither unbacked cryptoassets nor stablecoins benefit from deposit insurance or access to central bank facilities. On the contrary, Central Bank Digital Currencies (CBDC), which can be considered as a particular form of stablecoin issued by a Central Bank and backed by central bank money would benefit from such guarantees.

Unbacked cryptoassets are at present mainly used as an instrument of investment and speculation via the trading, lending / borrowing or staking[3] of cryptoassets. Their high volatility means that it is difficult to use them as a means of payment, a store of value or a unit of account, at least in the current state of the market. Stablecoins could in theory more easily be used as a means of payment due to their stable value. However, at present, they are mostly used to facilitate transactions and investments involving other cryptoassets: allowing the connecting between bank deposits in fiat currency and cryptocurrencies, facilitating lending and trading activities with stablecoins used as collateral or for the payment of interest, acting as a bridge between different crypto platforms and allowing investors to reduce their exposure to cryptoasset volatility by exchanging unbacked cryptoassets for stablecoins[4]. In particular they play an instrumental role in DeFi platforms, where they are used for the execution of most DeFi services (trading and lending in particular)[5].

Transactions involving cryptoassets are executed on crypto platforms, such as crypto exchanges, and facilitated by cryptoasset service providers (CASPs) that also provide additional services such as asset custody. These platforms provide similar services to the traditional financial system, including the trading of cryptoassets and crypto derivatives, the lending and borrowing of cryptos and various combinations of these activities and related services such as cryptoasset portfolio management. Most cryptoasset platforms operate at present in a centralized way (with a platform acting as an intermediary much as in traditional finance), but a new category of platforms known as DeFi (decentralized finance) operate in a decentralized way i.e. in a peer-to-peer mode and without the use of financial intermediaries. DeFi platforms are based on financial applications that run on a permissionless blockchain, such as Ethereum, and use smart contracts automating the provision of financial services without the need for intermediaries[6].

1.2 Market size and trends

The overall global market capitalisation of cryptoassets has grown rapidly in recent years, peaking at €2.5 trillion in November 2021, which was 7 times the market capitalization of the start of 2020 and then experiencing a significant fall in 2022 with the value of major cryptocurrencies such as Bitcoin divided by more than 2 since November 2021. This corresponds to less than 1% of global financial assets, but is a similar size for example to securitized sub-prime mortgage markets before the 2007 financial crisis[7].

There are around 16,000 cryptoassets in existence, but it is estimated that only around 20 or 25 of them have a significant size e.g. with a market capitalization comparable to that of a large cap equity. Bitcoin and Ether are by far the largest cryptoassets, with a market cap of around €550 Bio in total mid-2022 representing about 30% of the total

1. Some compare stablecoins to Constant Net Asset Value Money Market Funds (CNAV MMFs), which are a type of MMF that aims to preserve a stable value of €1 or $1 per share at which investors either redeem or purchase shares
2. For example in the case of TerraUSD which crashed earlier in 2022 the dollar was maintained through a system relying on traders burning or creating tokens and by mutually pairing Terra USD with another cryptocurrency, Luna. When the price of TerraUSD dropped below $1, traders could burn TerraUSD or remove it from circulation in exchange for a dollar in Luna. This allowed the reduction of TerraUSD token supply and a rise of the price of the tokens. In the same way, if the price of TerraUSD exceeded $1, traders were incentivized to burn Luna for a dollar in TerraUSD. This algorithmic balancing act aimed to maintain the price of TerraUSD at $1
3. Staking involves the pledging of coins using a proof-of-stake model to a given cryptocurrency protocol in exchange for a reward in order to support that blockchain network and confirm transactions
4. Various wholesale tokens providing their holders with interests or governance rights on blockchain platforms also exist, although they normally fall in one of the two previous categories
5. *e.g.* allowing the payment of interest or facilitating lending and trading activities with stablecoins used as collateral or settlement asset
6. The functioning of DeFi platforms, the opportunities and challenges associated with DeFi and the possible regulatory approach to DeFi are described in another Eurofi note of the September 2022 Regulatory Update "Decentralized Finance (DeFi): opportunities, challenges and policy implications"
7. Source ECB Financial Stability Review, May 2022

market. Stablecoins are still a relatively small segment, representing less than 10% of the total market.

Currently the majority of cryptoasset activity is driven by investment and trading in unbacked cryptoassets and to a lesser extent by cryptoasset lending. New means of gaining exposure to cryptoassets are however developing, such as cryptoasset derivatives, funds and ETFs and also staking[8]. DeFi is also a fast developing segment of the market, however the total value locked into DeFi was below €100 Bio in Q2 2022.

The interest in cryptoassets among retail investors has increased in Europe over the years, with surveys conducted in some large Euro countries indicating that around 10% of Europeans (and as many as 14% in the NL and 16% in the US) invested in cryptoassets in 2021[9]. This evolution is mainly driven by search for yield, the fear of missing out and asset diversification objectives and the additional opportunities of unrestricted leverage allowed *e.g.* in DeFi activities[10]. There is also the perception among certain investors that cryptoassets may be uncorrelated to capital markets or may provide a hedge against the impacts of inflation. However market evolutions in 2022 have shown cryptoasset volatility to be strongly correlated with other risky assets, including equities and such correlation has further intensified during the recent downturn, according to assessments by the OECD and the IMF[11]. The growth of the cryptoasset market is also supported by supply trends such as the development of crypto investment platforms and services in the major economies, a very active ecosystem in terms of news and social media coverage and the availability of crypto-based securities and derivatives[12] which is expected to increase notably on regulated exchanges.

The 'institutionalisation' of cryptoassets is also a developing trend in the market[13] *i.e.* the increased direct and indirect investment of institutional investors such as dedicated crypto funds, venture capital, hedge funds and family offices in cryptoassets and related companies. A survey conducted at the European level by an asset manager in 2021 showed for example that more than 50% of European institutional investors have some level of exposure to cryptoassets and that there is the intention to increase it. Statistics also show that professional investors and high-net-worth individuals hold almost two-thirds of the bitcoin market (as opposed to 10% for retail investors holding less than 10 bitcoins), pointing to an increasing concentration in the holding of cryptocurrencies[14]. Institutional participation in DeFi markets is also significant, peaking in May-June 2021 at more than 80% of total transactions in DeFi[15], before decreasing. The interest of institutional investors in cryptoassets is driven by the same search for yield and diversification objectives as retail investment and is also supported by regulatory evolutions in certain jurisdictions – for example since July 2021 institutional investment funds in Germany are allowed to invest up to 20% of their holding in cryptoassets.

Other signs of institutionalisation are the plans of traditional banks and stock exchanges to develop activities in the broader crypto-asset and decentralised finance space, including custody and customer facilitation, research and other dedicated services and also partnerships developing between asset managers and cryptoasset service providers to facilitate access to digital asset markets.

2. Opportunities, risks and challenges from cryptoassets

2.1 Opportunities associated with cryptoassets and underlying technology

Cryptoassets and crypto platforms offer opportunities for users in several areas.

First, as an alternative source of investment. Some investors, particularly among the younger and most risk-seeking population, bet on cryptoassets and on related activities (arbitrage between cryptoassets, crypto lending and staking) in search for higher returns and asset diversification. While this may be considered, particularly among the regulatory community, as highly risky speculation on volatile assets, crypto service providers argue that cryptoassets offer investment opportunities in innovative digital assets and can also be seen as a way of supporting the emergence of a new blockchain and digital currency-based ecosystem that may eventually facilitate the improvement of the financial system (and potentially other industries) through the digitalisation of value chains and the reaping of the potential efficiency benefits of tokenization.

Secondly, cryptoassets used as settlement tokens may support the digitalization of financial and commercial processes until CBDCs are widely available or in a complementary way to CBDCs *e.g.* facilitating the execution and settlement of transactions involving tokenized assets on blockchains and the connection between bank accounts in fiat currency and blockchain-based platforms.

Thirdly, cryptoassets, and particularly stablecoins may provide alternative means of payment and money transfer, provided they are adequately backed and that appropriate AML/CFT procedures are in place. This may

8. The first bitcoin ETF was launched for example in the US in October 2021
9. Source ECB Consumer Expectations Survey (CES) and speech by Fabio Panetta "For a few cryptos more: the Wild West of crypto finance" April 2022
10. These trends show the dynamism of the crypto market but have also led to accusations by some regulators of dynamics resembling a Ponzi scheme, with growth fueled by an increasing number of investors led to believe that prices will continue to increase
11. See OECD (2022), Institutionalisation of crypto-assets and DeFi–TradFi interconnectedness, OECD Publishing, Paris, https://doi.org/10.1787/5d9dddbe-en. The correlation between changes in the prices of cryptoassets and of equities has been positive since 2020. The returns on bitcoin for example were unrelated to those on the S&P500 index between 2017 and 2019, but their correlation coefficient increased to 35% in the period 2020-21. See IMF blog January 2022 Crypto prices move more in synch with stocks posing new risks
12. Such as futures, exchange-traded notes, exchange-traded funds and OTC-traded trusts
13. See OECD (2022), Institutionalisation of crypto-assets and DeFi–TradFi interconnectedness, OECD Publishing, Paris, https://doi.org/10.1787/5d9dddbe-en
14. See speech by Fabio Panetta "For a few cryptos more: the Wild West of crypto finance" April 2022
15. See OECD (2022), Institutionalisation of crypto-assets and DeFi–TradFi interconnectedness, OECD Publishing, Paris, https://doi.org/10.1787/5d9dddbe-en. The share of institutional transactions in this analysis corresponds to the share of investors executing transactions above $ 1 million, with transaction size used as a proxy

benefit financial inclusion in particular providing payment solutions for the unbanked population and also support the wider development of digital payments particularly on a cross-border basis. Many regulators however consider that this use case of medium of exchange will mainly be taken up by CBDCs if and when they eventually emerge, due to the volatility of unbacked cryptoassets and the potential issues surrounding stablecoins.

In addition DeFi proposes the creating of an alternative financial ecosystem based on cryptoassets, providing a wide range of financial services with potentially higher levels of efficiency, transparency and integration than the traditional financial system. Efficiency may indeed be brought by the use of smart contracts and related automation and also the non-custodial and peer-to-peer nature of DeFi that can reduce the need for intermediaries and infrastructures and lead to a reduction of transaction costs and delays.

Beyond these opportunities from the direct use of cryptoassets or cryptoasset platforms, some observers consider that the main benefit from cryptoassets resides in their underlying technologies. Distributed Ledger Technology (DLT), the main underlying technology of cryptoassets is already being used and tested in many areas of finance and of the wider economy. But beyond DLT, the technologies supporting DeFi in particular, such as smart contracts[16], may help to improve existing financial value chains, potentially supporting for example the settlement of securities transactions[17], coupon payments or market making activities in a more efficient way. New types of services have also emerged on DeFi platforms, such as automated margining mechanisms for bitcoin futures[18] and flash loans supporting arbitrage activities[19]. Some of these services may represent a significant risk at the current stage of development of the DeFi market, also considering their unregulated nature, but could possibly lead to new ways of designing certain financial products and services in the future. The composability of DeFi protocols allowing different programmatic components to be combined to create new financial services thanks to their interoperability and the non-custodial nature of DeFi with users maintaining custody of their keys – and therefore of their assets – offer further opportunities for innovating and increasing efficiency in the financial sector.

2.2 Risks from cryptoassets

The risks from cryptoassets and cryptoasset investment are of different natures.

Some risks are similar to those posed generally by investment and credit activities such as high volatility, leverage, liquidity and counterparty risks, the risk of illicit activity, hack risks and also front running and market manipulation risks. These risks are however potentially amplified by the fact that cryptoasset activities are currently unregulated and unsupervised and until now were not subject to AML/CFT checks, do not benefit from any backstop or investor protection measures and are also highly exposed to ICT risks. The recent failure of certain crypto lending platforms has shown that the unregulated lending and borrowing activities of cryptoassets can be highly risky, as customer assets may be reinvested by the platform in risky investments for example with no backstop and no investor protection measures.

Some risks are more specific to crypto activities. The potential conflicts of interest that exist on crypto platforms have been pointed out by regulators[20]. These stem from the combination of activities performed on crypto platforms that include *e.g.* third-party trading, proprietary trading, margin lending and token issuance, potentially creating market-manipulation risks such as the front-running of trades[21] by miners who help to validate transactions on the digital ledger. The risks from stablecoins are a second area of concern for regulators since they are potentially subject to runs if a stablecoin 'breaks the buck' which could impact the crypto activities using stablecoins and also impact underlying commercial paper or bond markets used to back stablecoins (similar to certain MMFs). The recent crash of the Terra stablecoin has made the potential risks of stablecoins that may not be backed by sufficient reserves[22] more tangible, although Terra was a so-called algorithmic stablecoin.

DeFi activities pose some specific risks as well. These include technology risks resulting from the specific features of DeFi platforms such as smart contracts or oracles[23] and from specific services provided in DeFi such as flash loans. In addition the pseudo anonymity of DeFi platforms may amplify illicit activity risks and DeFi platforms may be more exposed than centralised crypto platforms to stablecoin risks due to the structural role played by stablecoins in the DeFi ecosystem. The existence of specific governance risks regarding DeFi applications has also been highlighted by regulators[24] more particularly in two areas: the control of administrative keys (used by the project core team to *e.g.* upgrade smart contracts on which

16. Smart contracts allow the execution of all contractual terms via a blockchain in an automated and programmable way without the need for intermediaries
17. For example, blockchain platforms have recently been experimented by central banks including the Banque de France for the settlement of securities transactions in tokenised form against wholesale CBDCs issued on the blockchain using smart contracts in order to enhance the efficiency of such processes and their capacity to be operated cross-border
18. FTX, a crypto-exchange has for example recently sought approval from the CFTC for offering bitcoin futures contracts with an automated margining mechanism. Under the FTX proposal, customers would deposit collateral in FTX accounts — cash or crypto — and be responsible for keeping enough on hand to cover margin requirements at all times. Margin levels would be calculated every 30 seconds. If the margin falls too low, FTX would start liquidating the position in seconds, selling it off in 10 per cent increments or, in worst-case scenarios, offering it to "backstop liquidity providers who agree ahead of time to accept a set amount". This would allow the bypassing of brokers who currently collect margin and make sure that customers have enough to support their positions and may also allow platforms to function 24/7. Source FT "Blockchain and financial markets: will computers push out brokers?" 5 April 2022
19. Flash loans are a type of uncollateralised lending that allows assets to be borrowed and repaid with interest within the same blockchain transaction and are used in particular to support arbitrage activities. Flash loans use smart contracts that do not permit the exchange of funds unless the borrower can repay the loan before the transaction ends, otherwise the smart contract cancels the transaction
20. IOSCO Decentralised finance report March 2022
21. *i.e.* trading ahead of transactions in the queue of transactions to be validated in order to gain advantage
22. For example the Terra / Luna ecosystem. Stablecoins that are not backed by sufficient reserves may lose their peg to the dollar and be the victims of a run
23. Oracle services allow data and content external to the blockchain (e.g. asset prices needed to execute transactions or to price derivatives), to be incorporated into the DeFi transaction flow, enabling the execution of smart contracts
24. IOSCO Decentralised finance report March 2022

protocols are based, perform emergency shutdowns if needed) and the functioning of the governance structures of DeFi platforms based on governance tokens that may lead to a high concentration of voting control in certain hands and a possible misalignment of incentives. In DeFi platforms there may also be a concentration of tokens in the hands of the core development team or the VC/other funders backing the project.

The possible spillover risks between crypto activities and traditional finance have also been emphasized in recent reports and speeches by regulatory authorities[25] due to the growing interconnectedness between cryptoasset activities and traditional finance (*e.g.* with institutionals investing in cryptos and banks potentially developing custody and customer facilitation services). Regulators have highlighted different contagion channels to the broader financial system, such as the potential impact of a fall in the value of cryptoassets or of a failure such as a fraud on the wealth and level of confidence of investors and the activities of market players, which could spill over to broader financial markets. The failure of a major stablecoin 'breaking the buck' due to solvency issues could moreover impair the collateral and liquidity on DeFi platforms, potentially leading to significant liquidations and stress. A possible run on a stablecoin could also trigger instability in underlying short term paper markets (used as reserves). Possible contagion risks between different crypto activities have also been emphasized by regulators as an additional source of vulnerability (*e.g.* shown by users of centralised platforms lending crypto assets to DeFi platforms for a return).

Regulators however generally consider that at this stage these risks do not have significant financial stability implications due to the relatively limited volumes concerned, compared to the overall financial system[26].

2.3 Operational challenges facing the development of cryptoassets

Certain assessments notably performed by the BIS and the ECB have also demonstrated intrinsic limitations in the cryptoasset and DeFi ecosystems and the functioning of their underlying technical platforms, in the present state of development of the market, which may limit the development of these activities.

A first issue is the energy consumption of cryptoasset activity. It is estimated that the annualized energy consumption of certain larger cryptoassets is similar to that of some mid-sized countries such as Belgium or Chile, which is not sustainable if the market continues to develop[27]. The main reason lies in the cryptographic protocol used by cryptoassets such as bitcoin and also most stablecoins, relying on the proof-of-work (PoW) consensus mechanism[28], requiring vast amounts of computational power to validate cryptoasset transactions. This issue can potentially be addressed by a move towards the proof-of-stake (PoS) consensus mechanism, which involves the locking up by network participants of a certain amount of the underlying cryptoasset to validate a transaction instead of computing power[29]. However, while PoS is developing, the market capitalization of PoW-based cryptoassets still represents around 80% of the total cryptoasset market. While the possibility to limit the use of PoW was considered by the European Parliament in the context of the debates around the proposed MiCA (Markets in Cryptoassets) regulation, the option finally retained is to request the Commission to include cryptoasset mining activities that contribute substantially to climate change in the EU taxonomy for sustainable activities, considering that sustainability disclosure requirements and related regulatory scrutinity of consensus mechanisms will accelerate the transition to more sustainable mechanisms such as PoS.

Two other operational challenges more specific to the DeFi ecosystem are the fragmentation of the crypto ecosystem and over-collateralisation.

The inherent fragmentation of the crypto ecosystem, leading to congestion and high fees, has been highlighted by the BIS[30]. This fragmentation is due to the existence of a large number of competing blockchains that do not interoperate, the limited scalability of crypto platforms compared to traditional centralised market infrastructures and also the system's current incentive structure. Validators on pseudo-anonymous crypto platforms, where reputation cannot play a role, are indeed incentivised through monetary rewards and for these to be kept high enough the capacity of the blockchain is limited, leading to congestion and higher fees. Users are inclined to switch to alternative blockchains in order to transact at lower fees, a trend which is sustained at present by VC investments in new crypto projects. As a consequence, as more users enter the crypto ecosystem, more and more competing blockchains are used according to the BIS[31], reducing the efficiency of the overall system and also increasing risks, since this leads to the creation of bridges across blockchains with a higher exposure to hacks.

The over-collateralisation that is needed for DeFi lending is a second challenge[32]. With no ability to screen borrowers due to the pseudo anonymous nature of DeFi platforms, these platforms rely on collateral often consisting in

25. OECD (2022), Institutionalisation of crypto-assets and DeFi–TradFi interconnectedness, OECD Publishing, Paris, https://doi.org/10.1787/5d9dddbe-en; IOSCO Decentralised finance report March 2022. Speech by Fabio Panetta "For a few cryptos more: the Wild West of crypto finance" April 2022
26. FSB (2022) Assessment of Risks to Financial Stability from Crypto-assets https://www.fsb.org/2022/02/assessment-of-risks-to-financial-stability-from-crypto-assets/
27. It is estimated that mining in the bitcoin network uses up about 0.36% of the world's electricity Source IMF Global Financial Stability Report October 2021. See also ECB Mining the environment – is climate risk priced into cryptoassets? 2022 https://www.ecb.europa.eu/pub/financial-stability/macroprudential-bulletin/html/ecb.mpbu202207_3~d9614ea8e6.en.html
28. Under PoW, which emerged with the invention of bitcoin, miners use specialised hardware to solve the complex mathematical puzzle of mining the crypto-asset, validate transactions and secure the expanding network. This procedure is computationally expensive and translates directly into high energy consumption
29. Crypto-assets built on PoS blockchains thus rely on miners pledging crypto-asset collateral, leading to substantially lower energy consumption. Estimates by the Ethereum Foundation suggest that moving the Ethereum blockchain from PoW to PoS would dramatically reduce energy consumption by 99.95% while ensuring the same functionality. Source ECB Mining the environment – is climate risk priced into cryptoassets? 2022
30. See BIS Bulletin – Blockchain scalability and the fragmentation of crypto – 7 June 2022 and BIS - 2022 annual economic report
31. In contrast to traditional financial infrastructures where network effects lead to a higher level of concentration
32. Source BIS Bulletin N°57 DeFi lending : intermediation without information? 14 June 2022

cryptoassets. The high volatility of these assets means that there is often over-collateralisation, which may lead to an inefficient use of capital and foster procyclicality. In booms appreciating prices of collateral values increase the capacity to borrow, while in busts declining collateral value reduces lending activity. Some observers have also suggested that over-collateralisation goes against one of the initial objectives of DeFi which is to widen access to finance.

3. Policy approach to cryptoassets

At present policy initiatives related to cryptoassets cover two main areas AML / CFT rules and the regulation of cryptoassets and cryptoasset service providers. These latter regulatory initiatives aim to tackle two types of risks: risks for consumer protection and market integrity on one hand – including the provision of sufficient information to users and the protection of user assets – and financial stability risks on the other.

3.1 AML / CFT regulation

AML / CFT requirements are being reviewed at the EU and global levels to adapt them to financial activities involving crypto-assets and the service providers and users concerned.

In October 2018 and June 2019, the Financial Action Task Force (FATF) adopted changes to its international AML/CFT recommendations to clarify that they apply to financial activities involving virtual assets such as cryptoassets, and virtual or crypto-asset service providers (VASPs) and this was followed in October 2021 by the publication of a more detailed risk-based guidance[33].

In the EU, AML / CFT rules are also being revised in order to extend their scope to cryptoassets, their holders and related service providers[34], which will also provide the basis for a harmonized approach to supervising them in the perspective of the establishment of a new European AML Authority. The EU institutions also reached at the end of June 2022 a provisional agreement on the proposal to extend the rules on information accompanying transfers of funds (the so-called "travel rule") to cover transfers in cryptoassets (TFR regulation). This rule requires that information on the source of the asset and its beneficiary travels with the transaction and is stored on both sides of the transfer[35].

3.2 Regulation of cryptoassets and cryptoasset providers

Work is underway at the global level, following progress made by the FSB[36] in connection with the global standard setters for advancing the agenda on crypto-assets.

A regulatory policy agenda concerning cryptoassets was published by IOSCO in July 2022 aiming to respond to the market integrity and investor protection concerns raised by crypto activities and also identify potential systemic risks. The work will initially be divided in two workstreams: one covering crypto and digital assets (CDA) and the second one focusing on DeFi, with an objective to publish policy recommendations by the end of 2023. The CDA workstram will assess trading, transparency and market manipulation risks, as well as safekeeping and custody, starting with a taxonomy of activities and an evaluation of emerging risks that may be specific to cryptoasset markets. The DeFi working group will examine in particular how IOSCO principles and standards can apply in DeFi and also assess the links between DeFi, stablecoins and cryptoasset trading, lending and borrowing platforms, as well as the interactions of DeFi with broader financial markets.

CPMI and IOSCO have also issued final guidance on stablecoin arrangements in July 2022 confirming that the Principles for Financial Market Infrastructures apply to systemically important arrangements that transfer stablecoins.

Several jurisdictions have moreover launched regulatory initiatives concerning stablecoins and their issuers aiming to tackle related financial stability and user protection risks. In Japan for example, only banks, fund transfer service providers and trust companies are now entitled to issue stablecoins and each is subject to the requirement to ensure redemption[37]. The Japanese framework also includes a number of measures to enhance cryptoasset user protection[38]. In the US also action is being taken in the area of digital assets and stable coins[39].

In the EU, crypto-asset activities, are due to be regulated by the Markets in Crypto-Assets (MiCA) regulation[40], which

33. Greater guidance from the FATF is provided in 6 key areas: (i) clarification of the definition of VA and VASP (virtual assets and virtual asset service providers), (ii) guidance on how the FATF standards apply to stablecoins and the range of entities the standards apply to, (iii) additional guidance on the risks and tools available to address AML/TF risks for peer-to-per transactions, (iv) updated guidance on the licensing and registration of VASPs, (v) additional guidance on the implementation of the 'travel rule', and (vi) principles for information-sharing and cooperation among VASP supervisors. Source FATF - Updated guidance: a risk-based approach to virtual assets and virtual asset service providers October 2021
34. The current AML/CFT rules only apply to exchanges of crypto-assets for money
35. There will be no minimum threshold or exemptions for low-value transfers of cryptoassets, except for transactions from un-hosted wallets (*i.e.* wallets held directly by their owners without using a cryptoasset service provider (CASP)) to which a 1000€ threshold will apply. In addition CASPs will be required to verify that the source of the asset is not subject to restrictive measures or sanctions and a public register for non-compliant CASPs will be set up under MiCA
36. For example see FSB Assessment of risks to financial stability from cryptoassets – February 2022
37. Banks should issue stablecoins as deposits. They are already subject to prudential regulations and stablecoin holders are protected by deposit insurance in the same manner as conventional bank deposits. Fund transfer service providers issue stablecoins as claims on outstanding obligations. They are required to secure the obligation through either money deposits with official depositaries, bank guarantees, or segregated safe assets, such as bank deposits and government bonds. Trust companies issue stablecoins as trust beneficiary rights. They are required to hold all the trusted assets in the form of bank deposits. See Eurofi Views Magazine September 2022 p. 254 article by Tomoko Amaya (J-FSA) Three major policy perspectives for financial regulators regarding crypto-assets
38. For further detail about the the Japanese framework for cryptoassets see Eurofi Views Magazine September 2022 p. 254 article by Tomoko Amaya (J-FSA)
39. See Executive order on ensuring responsible development of digital assets (March 2022), Report on stablecoins from the President's working group on financial markets (November 2021)
40. The Digital Operational Resilience Act (DORA) should moreover help to mitigate ICT risks such as cyber-risks that may affect crypto and DeFi platforms and their different components among others

is part of the Digital Finance package[41]. MiCA proposes a new EU legal framework for crypto-assets (including stablecoins), that do not fall under existing EU legislation[42] and also for the entities that issue these assets and those that provide services related to them. MiCA aims to establish uniform rules related to crypto-assets in the EU providing legal certainty for crypto-asset issuers and providers, enhancing consumer protection and ensuring financial stability while supporting innovation. The legislative process is underway with the adoption of the ECON Committee report on MiCA in March 2022.

MiCA adopts a technology-neutral approach (same activities, same risks, same rules), which means that it should normally apply to all cryptoasset activities, however DeFi for example is not explicitly mentioned in the MiCA legislation and therefore it is still uncertain how MiCA rules will apply to decentralized platforms[43].

The MiCA proposal provides a set of definitions of different cryptoassets (including asset-referenced tokens *i.e.* stablecoins; electronic money tokens and utility tokens) and a regime for the issuance of cryptoassets and the provision of cryptoasset services to the public. This regime includes a mandatory authorisation of cryptoassets (with the notification of a white paper to the authorities) and of cryptoasset service providers, providing a passport valid throughout Europe. MiCA also puts forward requirements for the offering and marketing of crypto-assets to the public and a certain number of safeguards for crypto-asset holders (including prudential safeguards, rules concerning the safekeeping of clients' cryptoassets and funds, the obligation to establish a complaints procedures, rules on conflicts of interest and outsourcing and rules to prevent market abuse). Requirements are moreover established for asset-referenced tokens including rules on the reserve of assets backing them, on the custody of reserve assets and their nature (secure and low risk) and on the disclosure of the rights attached to these assets. The supervision of issuers of 'significant' asset-referenced tokens (to be defined by specific criteria of size) is a further area covered in the MiCA proposal with the provision of specific powers and competences to EBA in particular[44]. The establishment of a register of cryptoasset service providers by ESMA is also mandated.

In addition, regarding the supervision of cryptoasset platforms, the Commission has announced in its strategy on supervisory data in EU financial services its intention to launch a pilot project on the technical foundations of DeFi supervision embedded in blockchain in 2022 and also to request ESMA to prepare a report on new data collection approaches under the DLT pilot regime for market infrastructures[45].

3.3 Possible further evolutions for reaping the benefits of cryptoasset technology

In some reports by public authorities[46] it has been suggested that regulation and supervision, however desirable, will not be sufficient to allow the reaping of the full benefit of crypto and DeFi technology, such as programmability, composability and tokenisation, because of the inherent fragmentation and fragility hampering crypto platforms. The suggestion has been made that this would require building further scale necessitating further interoperability and network effects and ensuring sufficient safety in the crypto system. One way to do this, according to the BIS and OECD would be to use central bank digital currency (CBDC) on crypto platforms instead of private stablecoins in certain instances, in order to increase the safety of settlements and mitigate potential contagion risks from stablecoins.

Some observers have also emphasized, concerning DeFi, that the lack of accountability is a major impediment for a wide-scale institutional adoption of this technology[47], suggesting that protocols using a permissioned pool of participants who may be legally identifiable and accountable could be a way forward.

41. The Digital Finance package aims to support the potential of digital finance in terms of innovation and competition, while mitigating the risks and incudes several initiatives such as the Digital Finance Strategy, MiCA, DORA and the DLT pilot regime
42. For example utility tokens that provide access to a service, stablecoins that can be used for payments and claim to maintain a stable value. Some derivatives may for example qualify as financial instruments and be regulated under MiFID II / MiFIR, and therefore be out of the scope of MiCA
43. See further details on the policy implications of DeFi in the Eurofi note on DeFi opportunities, challenges and policy implications (September 2022)
44. The ECON Committee report has proposed that ESMA should be tasked with supervising the issuance of asset-referenced tokens, whereas EBA would be in charge of supervising electronic money tokens
45. See European Commission - European Financial and Stability Review 2022
46. For example BIS Annual Economic Report 2022 – The future monetary system; OECD (2022), Institutionalisation of crypto-assets and DeFi–TradFi interconnectedness, OECD Publishing, Paris, https://doi.org/10.1787/5d9dddbe-en
47. See Eurofi Magazine February 2022 – page 274 – Jos Dijsselhof, SIX Group; Remarks by L. Brainard on cryptoassets and decentralized finance through a financial stability lens 8 July 2022