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EUROPEAN UNION'S APPROACH TO CRYPTO-ASSETS AND DISTRIBUTED LEDGER TECHNOLOGIES

| Abstract

- ▶ *Goal* – to analyse the different and comprehensive aspects of the European Union's approach to distributed ledger technologies and crypto-assets with a teleological interpretation then finally foresee what kind of policy is going to be adopted by the European Union regarding distributed ledgers.
- ▶ *Research methodology* – the article includes an analysis of the current and upcoming legal acts and regulations of the European Union regarding distributed ledger technologies and crypto-assets. A multi-disciplinary approach is adapted to understand the financial and technological reasons of European Union's policy.
- ▶ *Score/results* – many regulations and directives have been legislated by the European Union and more regulations are in the final phase of the legislation process. Since the global hubs of the distributed ledgers (especially the United States and the Republic of China) have put negative pressures on the crypto-assets and their underlying technologies, the European Union is a candidate to be a new global hub with its ongoing technology-agnostic approach.
- ▶ *Originality/value* – the effort for the harmonization between a range of different regulatory areas such as anti-money laundering regulations, public financial regulations and the legal infrastructure for pilot regimes regarding distributed ledger technologies and crypto-assets will bring a new impulse to the promoting innovation in a politically and financially safe zone of the European Union.

| **Keywords:** Distributed ledger technologies, regulation, crypto-assets, policy studies.

1. Introduction

The rising interest in distributed ledger technologies (DLTs) in FinTech industry and notorious events that occurred in crypto-asset markets draw attention of the governments and relevant supervisory authorities. The European Union has shown the willingness to regulate the area for years. Currently, the Union keeps legislating new framework upon a consistent approach regarding the legal treatment of crypto-assets and their underlying technology. Different fields of legal treatment exist for crypto-assets and distributed ledger technologies. Taxation, financial regulation, providing digital infrastructure, anti-money laundering (AML) and terrorist financing are main concerns. Creating an impact on the DLT industry will depend on legislating technology-agnostic regulations as well as the national implementations of those regulations. In this article, the European Union's treatment of crypto-assets and distributed ledger technologies is assessed. Firstly, the anti-money laundering and terrorist financing approach of the Union is analyzed. Secondly, the financial treatment and the approach to provide a digital infrastructure with distributed ledger technologies are analyzed. Afterwards, the taxation in relevance to crypto-assets in various Member States is studied. Finally, the difference between the approach to the Central Bank Digital Currency in the Union and the approach to crypto-assets used through highly distributed ledgers is evaluated.

2. Anti-money laundering and terrorist financing

The European Union and Member States are sensitive to prevent the ways illicit money flows in their jurisdiction. A flow can be defined as illicit due to criminal or political reasons such as tax evasion or the financial sanction on Russia imposed upon the invasion of Ukraine. Since the underlying digital network of crypto-assets can be composed of permissionless and censorship-resistant protocols, illicit international transfers and transactions could be made from undesired jurisdictions, and then flowed into the financial systems in the Union through intermediaries. The European Parliament and European negotiators reached a provisional deal on issuing a new bill to ensure that electronic money tokens and crypto-assets can always be traceable like traditional ways of money transfer [*Anti-money laundering:...*]. Additionally, European Authorities target to complete the new EU anti-money laundering package in harmony with the

upcoming Markets in Crypto-assets Regulation (MiCA) [Proposal for a Regulation of the European Parliament...], which will regulate crypto-asset markets from financial markets' legal point of view. At the end, transfers of crypto-assets will be traceable and identifiable to prevent crimes, terrorist financing and money laundering. Crypto-asset service providers (CASPs) are going to be obliged to submit and block suspicious transactions. The rules will not apply to disintermediated peer-to-peer transactions as these transactions are out of the European financial system. The information on the sources of the asset, its beneficiary parties in transactions and its storage will have to be submitted by CASPs to competent authorities if an investigation is concluded to money laundering and terrorist financing. Underlying distributed ledger technologies such as blockchain and smart contracts would provide easier traceability as the technology involves transparent and automated mechanisms. There will be no minimum thresholds nor exemptions for any value transfers according to the current proposal. Implication of personal data protection rules will be applied throughout the process. Non-compliant and non-supervised CASPs will be registered in a public register in order not to exclude them from trading services covered in the Markets in Crypto-assets Regulation. In conclusion, law enforcement authorities in the Union will have the competence to intervene in the significant part of the public and private distributed ledger networks.

3. Financial treatment of crypto-assets in the European Union

The European Union Digital Finance Strategy Package is a set of regulatory initiatives introduced by the European Commission in 2020 to create a harmonized regulatory framework for digital finance and accelerate the digital transformation of the financial sector within the EU. Proposal on a Regulation on the Markets in Crypto-assets (MiCA) is one of four regulation proposals in the package. MiCA is expected to be in force in 2024. The European Union brings crypto-assets, crypto-asset service providers and crypto-assets issuers under a regulatory framework for the first time. The European Council presidency and The European Parliament reached a provisional agreement on the markets in crypto-assets proposal that aims to regulate issuers of unbacked crypto-assets, and so-called “stablecoins”, which are supposed to have an equal value to a legal tender as well as the trading venues and the wallets where crypto-assets are held. Global so-called “stablecoins” are seen as the assets that may include systemic

risk to financial stability. This regulatory framework targets to protect investors and keep financial stability, while allowing innovation and fostering the attractiveness of the crypto-asset sector. This will bring more precise framework in the European Union, as some member states already have their own national legislations for crypto-assets. However, there had been no specific regulatory framework at a EU level.

The developments of the quickly evolving sector have confirmed the urgent need for an EU-wide regulation. The first move was made upon the financial bubble of initial coin offerings with a joint declaration from the European Supervisory Authorities in 2018 [*ESMA, EBA and EIOPA warn consumers...*]. The second landmark move was the declaration of the European Digital Finance Strategy Package in September 2020 [*Communication From The Commission To The European Parliament...*]. The Proposal on Markets in Crypto-assets Regulation is one of the four drafts in the package. It will protect Europeans who have invested in these assets and prevent the abuse in crypto-asset markets, while being innovation-friendly to maintain the EU's attractiveness. The proposal will be legislated and come into force by the approval of the Council and the Parliament. This regulation will put an end to the crypto wild west where the issuers and crypto-asset service providers are looser and confirm the standard of the EU for digital topics. The European Commission is obliged to report on the environmental and sustainable standards for crypto-assets including proof-of-work consensus mechanism¹.

MiCA has several legal goals to provide. It will protect consumers against some of the risks associated with the investment in crypto-assets and avoid fraudulent financial structures. Currently, consumers have limited rights to protection or redress, especially if the transactions take place outside the EU. Crypto-asset service providers including crypto-asset exchanges and crypto-asset custodians will have to respect strict requirements to protect consumers' wallets and become liable in case they lose investors' crypto-assets. MiCA will also cover any market abuse related to any type of transaction or service, notably for and insider dealing and market manipulation. The regulation will provide legal certainty on European level to remove the legal treatments fragmentation for crypto-assets

¹ "Proof-of-work" is a type consensus mechanism which is a fundamental element for a distributed ledger network to keep producing data blocks with a decentralized nature. For details see: <https://ethereum.org/en/developers/docs/consensus-mechanisms/pow> [date of access: 19.08.2022].

on national levels. Crypto-asset service providers will have to get authorized in order to operate services in the EU. Significant electronic money issuers and significant asset-referenced token issuers will be supervised by the European Banking Authority whilst other token issuers will be supervised by national competent authorities. National authorities will transmit relevant information to the European Securities and Markets Authority on a regular basis in regard with the largest CASPs. Non-fungible tokens (NFTs) and security tokens are out of the scope of the current proposal.

4. Digital Operational Resilience Act and the pilot regime

In addition to the MiCA proposal, the European Finance Strategy package includes Digital Operational Resilience Act (DORA) – which will cover CASPs as well – and a pilot regime for market infrastructures based on distributed ledger technology for wholesale uses. The goal of DORA is to ensure that financial institutions, including banks and investment firms, have robust operational resilience in place to withstand and recover from cyber-attacks and other disruptive events. The proposal aims to achieve this by establishing common requirements for risk management, incident reporting, and testing and monitoring of critical systems and services. The pilot regime for market infrastructures based on distributed ledger technology aims to provide a framework for the testing and development of DLT-based market infrastructures, such as trading platforms and settlement systems. The pilot regime would allow market infrastructures to operate under a limited period of exemption from certain regulatory requirements, such as those related to capital and liquidity requirements, while they test and develop new DLT-based systems. The goal is to encourage innovation in the financial sector while maintaining appropriate levels of consumer protection and regulatory oversight. These regulations will promote the innovative implications regarding distributed ledger technologies and ensure the well-established infrastructure for crypto-asset service providers. European firms can test and imply new digital finance infrastructures and instruments by being exempted from obligations imposed on crypto-asset service providers whilst consumers and investors are not included in pilot stages.

5. Tax treatment of Crypto-assets in European Union

Though there are overall guidelines and regulations on the Union level regarding taxation², the competence of levying tax and legal implications are up to the Member States. Consequently, analyzing the taxation on crypto-assets mostly requires a divergent look at national laws. The goal of having a European Single Market also involves positive and negative harmonization on taxation. Taxation on crypto-assets needs precise harmonization steps on the Union level after the upcoming legislation of the European Digital Strategy Package. Including the definitions of crypto-assets made by National Tax Authorities, the tax treatment and liabilities should be as close as possible to ensure fair and efficient market in the Union. Not for all of the crypto-assets, but the European Court of Justice has made some clarifications for the legal status of Bitcoin regarding its taxation. The Court of Justice of the European Union has ruled that the services of a Bitcoin exchange in exchanging Bitcoin for a traditional currency is exempt from VAT on the basis of the ‘currency’ exemption.

6. European Central Bank digital currency and public distributed ledgers

The European Central Bank published the key objectives for a digital euro on July 2022 [*The case for a digital euro...*]. Today central bank money is available to the public only in the form of banknotes. Therefore, it could become marginalized in a digital world as a means of payment. A digital euro would be accessible to everyone throughout the euro area as an electronic means of payment issued by the central bank. It would complement cash, not replace it. This would help the role of central bank money to keep the force of the payments system stabilized. The critical point of the hybrid model is that citizens can convert private (commercial bank) money to public (central bank) money one-to-one and they can use the central bank money for payments. This ensured convertibility establishes trust in both public and private money. Furthermore, it protects the function of the currency as a single unit of account. Public money provides an

² The European Commission will amend the Directive on Administrative Cooperation (‘DAC’) to ensure that EU rules stay in line with the evolving economy and include other areas such as crypto-assets and e-money. Tax fraud & evasion – strengthening rules on administrative cooperation and expanding the exchange of information (see: [ec.europa.eu](https://ec.europa.eu/economy_finance/)).

anchor to maintain a well-functioning payment system by preserving financial stability and trust in the currency.

The system of European Central Bank digital currency (CBDC) will continue to offer banknotes together with the hybrid model and support the usage of banknotes as long as it is demanded. Nevertheless, it is also a reality that cash cannot be used in e-commerce. During the pandemic, online and contactless payments surged. If the online payment trend continues, cash could ultimately lose its central role for payments. On the other hand, the widespread availability and acceptance of cash protects the strategic autonomy of European payments and monetary sovereignty. Cash would still be an “insured” solution in the event of geopolitical tensions especially if sanctions were imposed against Europe. On the contrary, at present companies with headquarters outside the European Union run most electronic payments solutions.

Recent trends – specifically the case of crypto-assets - are creating confusion about what is digital money and what is not. European Central Bank considers the lack of convertibility of crypto-assets at par with central bank money to constitute an inefficient means of payment in the case of unbacked crypto-assets. This case creates vulnerabilities with exposing the financial system to instability. The backed crypto-assets have similar issues with private banks. Furthermore, The Bank has a concern regarding the potential domination of the market by non-European financial and technological solutions through global “stablecoins” if big technology companies adopt these “alternatives”. An interoperable infrastructure to switch funds between different CBDCs and crypto-assets might be a critical solution thanks to hybrid smart contracts like how the Bank of International Settlement (BIS) and Society for Worldwide Interbank Financial Communication (SWIFT) had advanced cooperations and experiments. Consequently, the Union wants to rise the emergence of central bank digital currencies (CBDCs) in large economies to increase the international role of the euro. Thus, efficiency, scalability, liquidity and safety with cross-border payment facilities are priorities for the ECB. However, the risks associated with an excessive use of a digital euro for investment purposes exists if the investment purpose goes beyond the intended role of CBDCs as a means of payment. It is thought taking safeguards might help avoid excessive migration of bank deposits to the central bank, which could disrupt efficient lending by banks to consumers and companies by destabilizing the banking system during times of financial stress. A holistic approach and careful design are required for an efficient CBDC to provide a true public good, from which the society and economy benefit as a whole.

7. Conclusion

The European Union is close to completing and legislating a comprehensive approach to crypto-assets and distributed ledger technologies such as blockchain. From illicit flows to the obligations of so-called “stablecoin” issuers in the European Union, the legal framework is becoming consistent. The formal procedures between the European authorities to conclude the legislation processes are in their last phases. The harmonization between the anti-money laundering approach and the financial treatment to crypto-assets might be able to create a tamper-proof monetary system against any criminal or political threat, including the attempts of Russia to break the financial sanctions imposed upon the invasion of Ukraine. The European Union regulates the legal treatment of crypto-assets mostly with regulations instead of directives. It means that the Union keeps the political power on the international level regarding its financial and technological sphere, instead of leaving the discretion to the Member States. However, the taxation issue on crypto-assets will still require harmonization steps as the nature of taxation is strictly bound to the competence of Member States. The European Union can be the main hub for the interoperable innovations of distributed ledgers if the EU keeps its unbiased stand on distributed ledger technologies. Overall, the European Union has a balanced stance between promoting innovation, protecting financial and political stability regarding the use of distributed ledgers and crypto-assets. It is another brick in the wall of emerging intergovernmental administration.

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