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Crafting the Future of Finance: A Comparative Analysis of Cryptocurrency Regulation in the Global Economy

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Abstract

This article provides a comparative analysis of financial regulations across different jurisdictions, including the United States the UK and the European Union that could be applied to crypto market. It discusses the economic, social, and technological factors driving the need for crypto regulation and explores the challenges and opportunities these regulations present for financial stability, consumer protection, and innovation. By examining the different regulatory approaches, the article offers insights into the development of a balanced regulatory framework that addresses the unique aspects of digital currencies, maintaining the innovative approach of the crypto market while safeguarding against risks.

Keywords

Cryptocurrency Regulation, Theory of Regulation, Financial Stability, Consumer Protection, Innovation, Digital Currencies, United States, United Kingdom, the European Union

1. Introduction

Crypto assets have gained more popularity in the past couple of years. The definition of crypto assets varies around the world, which is one of the complexities in implementing efficient regulatory rules. The UK's Financial Conduct Authority defines them as "cryptographically secured digital representations of value or contractual rights that use some type of distributed ledger technology (DLT) and can be transferred, stored or traded electronically"[1].

They enable transactions that have become more embedded with other sectors

[1]Cryptoassets: our work | FCA.

of the economy, raising concerns such as financial instability of the traditional market and consumer protection from regulatory authorities around the world. These concerns have led some scholars to advocate for regulation of crypto assets. Some have argued that the current regulatory framework is applicable to the crypto markets[2] (Van Adrichem, 2019). While other regulators have defended that new rules and policies should be specially made for this challenging market[3].

This paper aims to answer the question "Can the current rules created for the traditional financial assets be applied to the crypto assets?" by conducting a comparative analysis of regulatory perspective for crypto assets among the United States, the United Kingdom, and the European Union. By analyzing the complex functioning of the crypto market, the current rules of the traditional financial market, and what rules are applicable to the crypto market, it is possible to answer the question above and even make suggestions for future areas of improvement in case there is the need for more robust and bespoke crypto regulation.

The United States was chosen due to its financial market importance and its recent case of crypto-exchange failure FTX[4], making it a relevant case for analysis of the implications of crypto regulation. Moreover, the SEC has issued procedures against firms under the argument that their crypto transactions were in fact securities transactions.

The United Kingdom will also be analyzed due to the considerable improvements made by the Financial Conduct Authority (FCA) in evaluating cryptocurrency regulation and on the work from the HM Treasury with its "Future financial services regulatory regime for crypto assets".

Additionally, the paper explores the European Union's approach to crypto regulation, considering that it has already begun implementing measures in this domain as can be seen with the publication of Market and Crypto-Assets Regulation (MiCA Rules)[5].

Section 2 analyses the Theories of Regulation that would explain the reason for regulating this market. Section 3 will consider if the existing rules are efficient to address the Governments' concerns, or if other rules will still need to be created. Section 4 addresses the global perspective for crypto regulation from Supra-national bodies. These sections provide a comprehensive examination of how diverse regulatory approaches impact the global economy, financial stability, and innovation within the crypto market.

[2]Cryptoassets: our work | FCA. Crypto should be regulated with existing law, says former FDIC head | Financial Times (ft.com).

[3]HM Treasury, "Future financial services regulatory regime for cryptoassets" Consultation and call for evidence, February 2023, page 5.

[4]FTX, a once cryptocurrency group with a $32 bn valuation, collapsed and filed for bankruptcy protection in the US after facing a run on the exchange triggered by concerns over its financial health. These concerns led the FTX's clients to withdraw enormous amount of money which could not be met by the company. The US Security and Exchange Commission is now investigating FTX's funds and the management of FTX's consumers funds. - Sam Bankman-Fried's $32 bn FTX crypto empire files for bankruptcy | Financial Times.

[5]EUR-Lex - 32023R1114 - EN - EUR-Lex (europa.eu).

The innovation of this work lies in its detailed comparative framework, which not only identifies the current regulatory paradigms but also critically evaluates their effectiveness regarding innovation, consumer protection and financial stability.

The conclusion presented in Section 5 demonstrates that new regulations are likely to be created but some concerns must be taken into consideration when drafting and implementing them. The conclusion then identifies some of the topics that must be evaluated by regulators to implement an effective framework that will provide a safe and innovative market. Additionally, this paper sheds light on the environmental aspect of the crypto currency mining problem, although it is not thoroughly studied at this point, demonstrating that this is a topic that deserves further analysis.

2. Rationale for Crypto Regulation

Crypto markets are not yet regulated in most parts of the world. However, with the increase in the use crypto assets came the capacity to affect the financial system, raising red flags with regulators[6].

The crypto market's importance and the need for regulation have grown, especially after the collapse of the FTX company in the United States[7]. In order to analyze the potential rules that would be applied to the crypto market, we need to understand the rationale for regulation in the case of cryptocurrencies.

The "economic version of public interest theory" argues that regulation is a solution to a market failure (Morgan & Yeung, 2007), and in the case of the crypto market, could be a response to the information asymmetry. This is because most of the customers and investors cannot evaluate the financial health of its crypto investments because they don't understand how the process of data mining and blockchain works and may mistakenly evaluate their assets.

Consumer protection is another reason. Those who argue that the crypto market does not need to be regulated[8], seems to disregard that nowadays a collapse of major crypto exchanges (as happened with FTX) will probably put naive and uniformed consumers into bankruptcy. People that invest all their economies into an asset that they do not know that possess great risk.

Another perspective that would explain the need of regulation is that if companies like Facebook, with 2 billion clients, start issuing private created currency and releasing them into the market, they might have the power to disrupt the payment systems and to cause instability (Van der Linden & Shirazi, 2023). Additionally, the creation of money has always been the Governments' exclusive power and is linked to the countries' sovereignty. Therefore, cryptocurrencies would need to be regulated to protect markets' financial stability and sovereignty of governments.

The risk of systemic failure is also a concern regarding crypto assets, especially

[6]UK sets out plans to regulate crypto and protect consumers - GOV.UK (https://www.gov.uk/).
[7]FTX's collapse underscores the need for regulating crypto | Financial Times.
[8]CryptoSprint outputs | FCA, (2022).

after the collapse to the FTX exchange (Jalan & Matkovskyy, 2023). If a systemic collapse is possible, implementing regulation on the crypto market, at least to some extent, becomes more relevant.

"Analysts have warned that the industry is so large it could have macroeconomic consequences if mismanaged[9]."

The International Monetary Fund (IMF)[10] identified that Bitcoins, once used as diversification investments, have been so interconnected to the traditional stock market that it had reduced their risk mitigation benefits. This interconnection became stronger with the economic crisis emerged with the pandemic. The research indicates that Bitcoin's volatility has been responsible for one sixth of the volatility of the S & P 500, and this interconnectedness can destabilize financial markets.

In addition, it is possible that currently legal conducts in the crypto market may become illegal in the future due to new regulation (Jones & Kaminska, 2022). This could lead to crypto traders being held accountable for actions that might be considered criminal or scandalous in the future, as happened in the Libor Scandal.

On the other hand, participants from the crypto industry argued[11] that the crypto assets should not be regulated or would be difficult to regulate. The difficulty in regulating a decentralized entity is one of the reasons, while the concern over the potential to freeze innovation, or the risk of excessive regulation, or even the introduction of intricate and complex new rules are other reasons raised by the industry.

On the international level, the International Monetary Fund shared its opinion that standards for crypto assets regulation should be issued by the Financial Stability Board, aiming to "provide a comprehensive and coordinated approach to managing risks to financial stability and market conduct that can be consistently applied across jurisdictions, while minimizing the potential for regulatory arbitrage, or moving activity to jurisdictions with easier requirements[12]".

The regulation of crypto assets also involves the negative impact on the environment caused by certain crypto activities. For instance, it is recognised that some of the existing crypto currencies have their transactions based on mining of codes. This action consumes an enormous amount of energy[13].

In view of the risks regarding the crypto market and its increasing popularity, the following section will demonstrate how US, the UK, and the EU are evaluating the need for regulation and if the existing rules created for securities and other financial instruments could be applied to crypto assets. For this study I selected the main legislation and rules from each of the Countries subject of this analysis. The list of rules is far from exhaustive, and they are just an example of

[9]What is the current state of cryptocurrency regulation? | World Economic Forum, 28/03/2022. https://www.weforum.org/

[10]Crypto Prices Move More in Sync With Stocks, Posing New Risks (https://www.imf.org/en/).

[11]Cryptosprints Output (ibid n. 8).

[12]IMF, Global Crypto Regulation Should be Comprehensive, Consistent, and Coordinated (imf.org).

[13]IMF, Global Crypto… (ibid n. 17).

how crypto assets are being perceived in such countries.

3. Literature Review

Crypto assets are considered a new "tool" in the financial sector, especially when compared to the original formats of money that date thousands of years. And only recently governments and society started to discuss the eventual need of regulation for the crypto market. Therefore, the existing literature is not that extensive as can be seen with other financial instruments.

This paper analyzed several academic articles and industry related papers on the topic of regulation. Additionally, some articles that studied the historical role and evolution of the crypto market were also analyzed to make it easier to navigate the current issues facing crypto assets and their regulatory framework.

As explained in "Cryptocurrencies as a financial asset: A systematic analysis" (Corbet, Lucey, Urquhart, & Yarovaya, 2019), cryptocurrencies are electronic encrypted instruments that allow online transactions without the need to go through a financial institution. They were created in 2009 following the devastating Global Financial Crisis of 2008 that led to several banks closing its doors and many people losing their assets. In simple terms, crypto was crafted to be an alternative to traditional money, financial instruments and even to banks. The mentioned study offers a comprehensive review of literature on cryptocurrencies since their inception as a financial asset in 2009 and addresses key issues affecting the crypto market. For example, it observed that crypto assets have a potential for illicit use due to anonymity and pointed out that their systems are not yet properly developed, which can increase risks of frauds and cybersecurity threats. The authors mention that the existent regulatory framework has flaws, a perspective that is deeply evaluated in this paper. The authors also point out the need to improve the existing knowledge in cryptocurrency research.

In "Cryptocurrencies in Modern Finance: A Literature Review" (Rejeb, Rejeb, & Keogh, 2020) it was examined the evolving role of cryptocurrencies within the modern financial landscape. The paper demonstrated the cryptocurrencies' potential to offer lower transaction costs, higher efficiencies, increased security and privacy, meaningful diversification benefits, alternative financing solutions, and financial inclusion. These are some of the reasons that explain why crypto assets were created after the Global Financial Crisis of 2008 and why the interest in them has increased so much since then. On the other hand, it also outlines significant challenges, including regulatory uncertainty, the risk of criminal activity, high energy consumption, security concerns, and the volatility of cryptocurrency values. The paper's comprehensive review serves as a foundation for understanding both the opportunities and obstacles cryptocurrencies present when their world integrates to the traditional financial market.

Finally, the "Cryptocurrencies: market analysis and perspectives" (Giudici, Milne, & Vinogradov, 2020) evaluated the behavioral finance perspectives of the crypto market. The authors delved into the socio-economic impacts, regulatory challenges, and the potential of cryptocurrencies to facilitate new forms of financial transactions and investments.

The above publications demonstrate the historical evolution of crypto assets and they helped create a starting point for the following analysis.

4. Comparative Analysis of Regulatory Approaches

This section will focus on a comparative analysis of the regulatory approaches taken by the selected countries (the United States, the United Kingdom, and the European Union) towards cryptocurrencies and digital assets. Crypto assets have varied uses and, depending on the type of digital asset and its arrangement, the approach to regulation can be different (Hennelly, 2022).

4.1. The United States

4.1.1. Existing Regulatory Frameworks

1) Crypto assets as securities

Considering, as explained before, that crypto assets have several possible uses, there will be, probably more than one authority responsible for its eventual regulation. In addition to that, the Federal organization of the United States, with different State laws, adds another level of complexity to designing a new regulatory framework.

Another peculiarity from the US' legal system is that the crypto assets may be classified as securities or commodities depending on their functions. For instance, in the case of Initial Coin Offerings (ICOs), or digital assets purchased directly from the issuer, the Securities and Exchange Commission (SEC) have been classified them as securities in accordance with the Securities Act of 1933 (the "Securities Act"), and, therefore, subject to regulation by such authority (Hennelly, 2022).

The SEC's position was created after some litigation cases where SEC applied the Howey Test to verify if a digital asset had the same characteristics of a security asset. According to the Howey Test if a transaction ("real" or digital) involves making 1) an investment ("a transfer of something of value in exchange of future return rather than a present one" (Giancarlo & Bahlke, 2020), 2) in a common enterprise (where there is dependency on the central entity's knowhow or if all the investors share the risks and profits derived from the investment) and 3) the investors are led to believe that profits will depend only on the efforts of a third party, such transaction will be considered an investment contract and will be regulated by the SEC (Hennelly, 2022).

For example, in one of the recent Complaints issued by SEC, Sec. & Exch. Comm'n v. Ripple Labs[14], it was argued that a digital asset (XRP) created by Ripple was in fact an investment contract, because Ripple's control over the digital asset was interfering on the price of the asset, making it to behave as a continuous securities offering (Hennelly, 2022).

[14]Sec. & Exch. Comm'n v. Ripple Labs, (2020) (No. 20-CV-10832).

According to the Complaint, Ripple used certain tactics such as executing large-scale campaigns targeting those uninterested in XRP and selling tokens at discounted rates to investment officers, that were considered speculative investment trading according to SEC.

Notwithstanding SEC's position, the New York Court accepted SEC's argument that the sale of XRP to its direct investor was made against the securities laws, however, the court concluded that "Ripple's Programmatic Sales of XRP did not constitute the offer and sale of investment contracts"[15]. It explained that the sale of XRP to the secondary market did not meet Howey Test's third requirement. This position brings new uncertainty for the regulation of the crypto market in the USA.

SEC has set the parameters for its regulatory authority in Ripple/XRP case, but apparently Bitcoins and Ether, two major crypto currencies, would not be under the regulatory framework of SEC due to their decentralization levels (Hennelly, 2022). This happens because XRP differs from Bitcoin in two key aspects: i) XRP's validation process relies on Ripple or approved third parties, while Bitcoin and Ethereum allow independent users' mining works to confirm transactions; and ii) Ripple has in its powers the most part of tokens issued and therefore can control the value of the asset. Bitcoin's creation, on the other hand, was decentralised from the beginning.

There was not official position regarding the "no-regulation" approach towards Bitcoin or Ethereum, however if the decentralisation standard is considered a requirement for regulation, then it is possible that the major cryptocurrencies will be left unregulated.

2) Crypto Assets as Commodities

In the US, a digital asset can be qualified as a commodity if it possesses characteristics of a commodity. For example, when it acts as an instrument to store and transfer value, with the possibility of fluctuation in value similar to what happens with a traditional commodity, it will be considered a commodity in accordance with the Commodity Exchange Act (CEA) and might be regulated by the Commodity Futures Trading Commission ("CFTC") (Guseva, 2021).

The CFTC has declared that it is the authority agency responsible for overseeing cryptocurrencies when such crypto assets are "used in a derivatives contract, or if there is fraud or manipulation involving a virtual currency traded in interstate commerce[16]". Even if a crypto asset is qualified as commodity by the CFTC, if it meets the Howey test explained previously, it will be also regulated by the SEC (Guseva, 2021).

Currently, CFTC and SEC set their regulatory authority on a case-by-case basis, conditional upon the functionality of the crypto asset instead of clear regulations. This approach arises due to the absence of precise terminology and established guidelines for crypto assets and can be overturned by the courts as hap-

[15]Sec. & Exch. Comm'n v. Ripple Labs, (2020) (No. 20-CV-10832), available at SEC vs Ripple 7-13-23.pdf (https://www.uscourts.gov/).

[16]Bitcoin Basics (https://www.cftc.gov/).

pened recently with the Ripple. However, if the SEC includes the definition of digital asset in the Securities Act, the existing rules will be directly applied to crypto assets.

3) Bank Secrecy Act

Since 2013, the Financial Crimes Enforcement Network (FinCEN) has defined in its Guidance[17] that "exchangers and administrators of convertible virtual currency are money transmitters under the Bank Secrecy Act" and, therefore, must register within FinCEN. Additionally, they must "develop, implement, and maintain an anti-money laundering compliance program" and comply with the "reporting and recordkeeping requirements[18]".

4.1.2. Proposed New Rules and Regulations

The US is the country that is far behind in the process of implementing regulation for crypto assets. However, a recent decision from the NY court may have created the incentive that SEC was needing to create rules for the crypto market. It is possible that their standards defined in the Ripple case can be translated into new legislation (Versprille, 2023).

In March 2022, the President of the United States issued the "Executive Order on Ensuring Responsible Development of Digital Assets[19]" setting priorities and requesting the cooperation of several government agencies to study and develop an effective regulatory framework for the crypto market.

The main underlying objectives are to protect consumers, the financial stability of the USA and the global financial market, and to mitigate risks related to money laundering, cybercrime, narcotics, human traffic…, by applying the "same business, same risks, same rules" principle to crypto assets. The studies that are being conducted by the government will also need to address the impact of the crypto technology in the climate, analyzing risks and mitigating tools.

As can be extract from the Executive Order, if the United States decides to establish new rules for crypto assets, the crypto market may face a comprehensive new regulation.

4.2. The UK

4.2.1. Existing Regulatory Frameworks

In the UK there is also no specific regulation for crypto assets yet, (but there are several initiatives in the UK for a Future Regulatory Framework as will be analyzed in the next topic). Notwithstanding this fact, there are some rules applied to the traditional financial services market that are being applied to crypto transactions.

One example of rules that are applied to the crypto market is the Anti-Money Laundering and Counter Terrorist Finance (AML/CTF) rule. The rule requires that businesses that undertake cryptoasset exchange or provides custody wallet

[17]FIN 2013 G001 (https://fincen.gov/).

[18]First Bitcoin "Mixer" Penalized by FinCEN for Violating Anti-Money Laundering Laws | FinCEN.gov.

[19]Executive Order on Ensuring Responsible Development of Digital Assets | The White House.

services in the UK must register with the FCA. This is set to meet the compliance rules of the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 ("MLR")[20]. The FCA emphasizes, however, that the mandatory registration does not permit protection for the consumers from the cryptoasset transactions, and this situation should be made clear to the client's firm.

The Financial Services Markets Act 2000 will be applied to a cryptoasset if it functions as a specified investment under the Regulated Activities Order (RAO). In accordance with the FCA[21], if a cryptoasset or token "provide rights and obligations akin to specified investments as set out in the RAO, including those that are financial instruments under MiFID II[22]" such crypto asset/token will be considered a specified investment and will be regulated. These crypto assets will possess characteristics that will make than act as traditional instruments such as shares, units of collective investment scheme, debentures…

However, FCA's approach to identify a crypto asset as security is different from the US/SEC's approach. For the Financial Conduct Authority (FCA) it does not matter if the asset is based on decentralised technology, and none of the requirements for the USA's Howey Test are necessary for their analysis. FCA focus is if the asset is generating rights or obligations like certain investments, as shares, debt securities or e-money (Guseva, 2021).

The application of traditional rules to crypto assets is still subject to a case-by-case analysis. The consultations and studies being conducted plan to have new terminology and clear rules to facilitate the implementation of the rules to crypto assets that fall within the parameters of the Future Regulatory Framework.

Security tokens are already under the scope of the UK's regulators. The prospectus rules (for the issuance of security tokens)[23], Payment Services Regulations (applicable to E-Money)[24], are some of the other legislations that can be applicable to certain crypto assets.

4.2.2. Proposed New Rules and Regulations

To address the risks and challenges of the crypto market, the UK has declared publicly[25] that intends to create a robust[26] regulatory framework for crypto assets, aiming to protect consumers and the financial market. The UK intends "to be home to the most open, well-regulated, and technologically advanced capital markets in the world[27]".

[20]Cryptoassets: AML/CTF regime | FCA.

[21]FCA, "Guidance on Cryptoassets Feedback and Final Guidance to CP 19/3", (July 2019), PS19/22: Guidance on Cryptoassets (https://www.fca.org.uk/).

[22]FCA, Guidance on Crypto Assets, (Ibid n. 38), page 15.

[23]The Prospectus Rules. PR.pdf (https://www.fca.org.uk/).

[24]The FCA's role under the Payment Services Regulations 2017 and the Electronic Money Regulations 2011. fca-approach-payment-services-electronic-money-2017.pdf.

[25]Government promises robust crypto regulation - BBC News.

[26]UK sets out plans to regulate crypto and protect consumers - GOV.UK (https://www.gov.uk/).

[27]HM Treasury, Future financial services …, (ibid n. 4), page 5.

To support that goal, HM Treasury published a new consultation paper focused on analyzing future potential regulatory rules for crypto assets used in financial services. Other initiatives are being conducted by other authorities (inside and outside the UK) to study other uses of crypto assets and its appropriate regulation (for instance, stablecoins, UK tax on crypto assets, DLT supported UK debt issuance, UK Central Bank Digital Currency, to name a few)[28].

In its consultation, the HM Treasury established four main objectives for its future regulatory framework: promoting growth, innovation, and competition; facilitating informed consumer decisions and risk understanding; safeguarding UK financial stability; and upholding market integrity. Additionally, it has set some principles that will guide the future regulations. Those principles are[29]:

- "Same risk, same regulatory outcome": cryptoassets transactions will likely to meet the same regulatory standards as the ones built for traditional financial services transactions.
- "Proportionate and focused": Regulatory efforts will focus on critical risks and opportunities while avoiding undue burdens on entities, specially where end users acknowledge risks.
- "Agile and flexible": the new regulations should take into consideration evolving markets and products, allowing regulators to respond to market changes and international standards.

To reach those objectives and principles the HMT decided to use a phased approach when implementing regulation. For example, the issuance and custody of fiat-backed stablecoins might be included as regulated activities in Phase 1 of the implementation. Consequently, Electronic Money Regulations (EMRs) and Payment Services Regulations 2017 (PSRs) might be amended to incorporate appropriate terms to address this regulation[30].

In summary the HM Treasury defined that certain activities will be implemented in Phase 1, such as "issuance and redemption of fiat-backed stablecoin", "execution of payment transactions", "post-trade activities in cryptoassets", while other activities will be postponed to Phase 2. Examples are "admitting a cryptoasset to a cryptoasset trading venue", "making public offer of a crypto assets", "operating a crypto asset trading venue"[31] to name a few.

Other activities will be regulated in future phases (such as "Mining or validating transactions or operating a node on a blockchain") and others, such as the commodity-linked token that meets the definitions of the FSMA rules for specified investment, will not receive a tailored framework, as the HM Treasury believes the existing rules apply to them[32]. The question that remains is when should we expect the future phases to occur?

[28]Bitcoin Basics (Ibid n. 31), page 8.

[29]HM Treasury, "Future financial services …", (ibid n. 4), pages 10-11.

[30]HM Treasury, "Future financial services …", (ibid n. 4), page 23.

[31]HM Treasury, "Future financial services …", (ibid n. 4), page 28.

[32]HM Treasury, Future financial services …, (ibid n. 4), page 30.

4.3. The EU

4.3.1. Existing Regulatory Frameworks

The EU has several rules created for the traditional financial market that are already being applied to crypto assets.

The Markets in Financial Instruments Directive framework (MiFID II), which includes a directive (MiFID II) and a regulation (MiFIR), was enacted in 2007 and later improved to address new financial technologies and challenges, hence the creation of MiFID II and MiFIR. MiFID II/MiFIR regulates crypto-assets considered financial instruments, including transferable securities, money-market instruments, collective investment units, and derivatives, and recently included emissions allowances in the covered instruments[33].

Even with a wide range of instruments included in Article 4 (15) MiFID II, which include transferable securities, there is still uncertainty regarding certain types of crypto assets. The Article 4 (1) (44) MiFID II, when defining "transferable securities", excluded "payment instruments"[34]. This raises the question if cryptocurrencies would be reached by the Directive.

The 5th Anti-Money Laundering Directive (AMLD5) was another piece of legislation that considered crypto assets. This amendment to the existing AMLD brought new definitions, such as "virtual currency" and "custodian wallet provider"[35] into the perimeter of the regulation. However, there is still no uniformity in the application of the directive for crypto-to-crypto transactions amongst Member States.

The Second Electronic Money Directive (EMD2) and Second Payment Services Directive (PSD2) could also be applied to cryptoassets, although there are problems with nomenclature. For instance, the definition of electronic money is not clear and apparently does not include stablecoins[36].

Those directives and rules existed before the concerns with crypto assets emerged and they were adjusted to fit the new technology and its challenges. However, the EU has enacted a new Regulation all drafted taken into consideration the crypto market: the MiCA Rules and Regulations.

4.3.2. Proposed New Rules and Regulations—The MiCA Rules and Regulations

The MiCA Regulation, proposed by the European Commission, aims to regulate the emerging crypto-assets market while ensuring financial stability, investor protection, and innovation. It has four key goals: delivering legal certainty, promoting safe innovation and competition, improving protection for consumers and investor, and protecting financial stability, especially in relation to stablecoins, the main concern of the regulation (Van der Linden & Shirazi, 2023).

MiCA applies to three types of tokens: asset-referenced tokens, e-money tokens, and other crypto-assets. On the positive side the Rules seem to be closer to

[33]Tina van der Linden and Tina Shirazi, "Markets in crypto-assets…" (ibid n. 11), page 7-10.

[34]Article 4 Definitions | European Securities and Markets Authority (europa.eu).

[35]EUR-Lex - 32018L0843 - EN - EUR-Lex (europa.eu).

[36]Tina van der Linden and Tina Shirazi, ibid (n. 11), page 10-12.

creating a harmonized framework, built on trust, and aiming at reducing fraud risks. On the other hand, the regulation still lacks the appropriate definitions and terminology (Tomczak, 2022). There is also the possibility of credit institutions benefiting from certain exemptions in detriment to other crypto players, creating unfair advantage. And certain requirements might restrain innovation instead of improving it.

In addition to the MiCA Rules, European Parliament has agreed to start to work on proposal to include in the EU Taxonomy activities related to crypto mining, to mitigate environmental threats that arise from the use and exchange of certain cryptocurrencies. Such regulation is estimated to be in place by January 2025.[37]

5. A Global Approach

In December 2022 the Basel Committee on Banking Supervision (BCBS) have issued its Final Standards on "Prudential treatment of cryptoasset exposures"[38]. These Standard stablish "requirements of banks' cryptoasset exposures under Pillars 1, 2 and 3 of the Basel Framework[39]".

In the consultation paper, prior to the issuance of the Final Standard, the Committee introduced a supplementary charge designed to incorporate underlying risks that may emerge due to the evolving technological infrastructure related to crypto assets. Its original proposition stablished an automatic fixed charge at 2.5% of total credit risk-weighted assets (RWA) concerning exposure values within the banking book[40].

The Final Standard was issued with a more flexible approach and the fixed rate is not implemented by default anymore. Now authorities will be allowed to impose such add-ons if they observe weakness from the regulatees.

In addition to this infrastructure add-on, the BCBS has defined a capital requirement for certain crypto assets. Depending on the crypto classification stablished by the Standard (Group 1a - tokenised traditional assets; Group 1b - cryptoassets with effective stabilisation mechanisms; and Group 2 - all unbacked cryptoassets and tokenised traditional assets and stablecoins that fail to meet any of the Group 1 classification conditions), the Bank will be subject to 100% capital charge (equivalent to a RW of 1250%), with or without some hedging recognition[41]. This means that banks will have to reserve enough capital to protect any loss arising from certain cryptoassets.

The BCBS' rules (that will be incorporated in the national rules of Countries that are members of the BCBS) demonstrate the relevance that the cryptoassets are having in the financial and banking systems. If there is yet no specific regulation for some of the crypto assets, the Authorities will have to control how much

[37]Cryptocurrencies in the EU: new rules to boost benefits and curb threats | News | European Parliament (europa.eu).

[38]Prudential treatment of cryptoasset exposures (bis.org).

[39]Prudential treatment of cryptoasset exposures – Executive Summary (bis.org), page 1.

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

[41]Prudential treatment of cryptoasset exposures – (ibid n. 56), page 2.

exposure the banks will be allowed to sustain with crypto assets to protect the soundness of the banking system.

6. Conclusion

This paper has emphasized the need for regulatory measures in response to the growing influence and potential risks posed by crypto assets. As these assets cross geographical borders and can impact traditional financial systems, the necessity for a regulatory framework based on international coordination seems to be the optimal solution.

The comparative analysis demonstrated the different approaches to regulation: from the US' application of the Howey Test to crypto assets, to the UK's incorporation of existing rules into its crypto asset framework. The European Union, although has integrated traditional financial regulations to certain crypto asset types through directives such as MiFID II and AMLD5, has also issued specific crypto regulation as can been with the MiCA Regulation.

Even with different approaches (stricter or more principle-based) the conclusion is that while existing rules can be extended to certain crypto assets, the diverse and evolving nature of crypto assets requires bespoke regulations that address their specific characteristics, risks, and cross-border dynamics (as will likely be the case with crypto currencies).

The effective regulatory framework should then include: 1) clear definitions and terminology; 2) rules designed for the main uses of the digital assets; 3) clear requirements on regulated financial institutions (as can be seen with the BCBS Standards) regarding the potential exposure to crypto assets; and a 4) a structure that allows adjustments in order to keep the regulation up to date with developments from crypto technology. Additionally, international cooperation is essential and should involve sharing of information, and periodic monitoring of risks.

It is worth noting that the environmental concerns over some crypto assets, such as certain cryptocurrencies, are not well addressed yet. The proposals for new regulation mention the environmental risks, but there is no indication of how they pretend to deal with this problem. Although it is a relevant point, it is not in the scope of this paper to explore the environmental impacts of cryptocurrencies and the specific challenges posed by their decentralized nature. This topic should be considered for deeper analysis by academics and market professionals, for example how regulators should address the problem of energy consumption related to crypto currencies' mining practices.

And finally, to answer the question "Can the existing rules be applied to the crypto assets?", the response is "Yes, to some extent". Crypto assets that possess characteristics of investment contracts or other types of contracts will have the existing rules already in place for such instruments applied to them, as we have seen in the USA and as MiCA Regulation will address. As for other types of crypto assets, such as cryptocurrencies, new regulation is not yet prepared and there is a great amount of uncertainty regarding if, how and when such rules will be created, especially considering the difficulty mentioned in relation to the decentralized technology of certain crypto assets.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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