Anastasia Kotovskaia
Nicola Meier

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Leibniz Institute for Financial Research SAFE
Sustainable Architecture for Finance in Europe
policy_center@safe-frankfurt.de | www.safe-frankfurt.de

BigTech Cryptocurrencies – European regulatory solutions in sight*

Anastasia Kotovskaia, Goethe University Frankfurt and SAFE
Nicola Meier, Goethe University Frankfurt, and Hanseatic Higher Regional Court of Hamburg

Abstract

Large technology firms («BigTechs») increasingly extend their influence in finance, primarily taking over market shares in payment services. A further expansion of their businesses into the territory of cryptocurrencies could entail new and unprecedented risks for the future, namely for financial stability, competition in the private sector and monetary policy. When creating a regulatory toolbox to address these risks, financial regulatory, antitrust, and platform-specific solutions should be closely intertwined in order to fully absorb all the potential threats and to take account of the complex risks these platform companies bear. This policy letter evaluates the solutions lately proposed by the European Commission, with specific focus on the upcoming regulation of Markets in crypto-assets (MiCA), but also the Digital Markets Act (DMA) and Digital services act (DSA), against the background of cryptocurrencies issued by BigTechs and sheds light on financial regulatory, competition and monetary law issues coming along with the possible designs of these cryptocurrencies.

I. Introduction

BigTechs are huge and world-known ecosystems that primarily provide non-financial services by constantly expanding their offerings integrating a wide range of innovative solutions in their business models. Because of their size, established market power, significant investments in their business models, and the use of big data and analytical tools, BigTech companies have the potential to transform the financial services market. BigTechs use a platform-based business model and profit from strong network effects that may lead to the "winner-take-all" dominance. All these factors grant BigTechs with competitive advantages over smaller companies and start-ups.

BigTech companies such as Facebook have been working intensely on the launch of cryptocurrencies in recent years.[1] Although many BigTech companies, such as Apple and Amazon, are still focused on

* SAFE policy papers represent the authors' personal opinions and do not necessarily reflect the views of the Leibniz Institute for Financial Research SAFE or its staff.

[1] On the former project for a stablecoin „Libra", later named „Diem**"** that was officially abandoned in January 2022: *Schmeling*, SAFE Policy Letter, No. 76, September 2019.

payment services, it is possible that they may launch their own cryptocurrencies, following the Facebook's plans.[2] These could be structured either as a means of payment completely independent from other assets, including sovereign currencies, or as so-called stablecoins. The latter class has attracted special attention of BigTechs but also of policymakers.[3] Stablecoins provide a real asset and/or currency basket (asset-backed stablecoin) or stabilizing operative methods (seignorage-style or algorithmic stablecoin), which are supposed to make them more eligible to function as a stable medium of exchange compared to regular crypto-assets, possibly making them even suitable for daily use.

Despite the recent developments, the scope of the European regulation of cryptocurrencies remains limited. Solely the 5th Anti-Money Laundering Directive (AMLD)[4] touches upon cryptocurrencies by imposing anti-money laundering obligations on custodian wallet providers[5] of virtual currencies. Whilst Germany and other EU member states have conducted "gold-plating"[6] by enacting further financial regulatory requirements on cryptocurrencies in their national law,[7] a harmonized European framework for the regulation of cryptocurrencies does not yet exist. Only in 2020, the European Commission reacted upon the lack of a harmonized regulation and launched drafts for a regulation of Markets in Crypto-Assets (MiCA),[8] a Digital Markets Act (DMA)[9] and a Digital Services Act (DSA) as part

[2] Similarly, large retail firms or governments may have potential to create a wide-used cryptocurrency that may be seem as an alternative to the legal tender. It may be of research interest to analyze their economic power and legal threats separately.

[3] See European Commission, Proposal for a regulation of the European Parliament and of the Council on Markets in Crypto-assets (hereinafter: MiCA), and amending Directive (EU) 2019/1937, 24.09.2020, (COM(2020) 593 final), available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593 [accessed 26 July 2021], p. 2 f.

[4] Directive (EU) 2018/843 of the European Parliament and the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU.

[5] Custodian wallet providers are entities providing "services to safeguard private cryptographic keys on behalf of its customers, to hold, store and transfer virtual currencies" (Art. 1 (2) (d) (19) of the Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU (AMLD5), 30.05.2018, PE/72/2017/REV/1, OJ L 156, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018L0843, [accessed on 2 September 2021].

[6] The term "gold-plating" is used to describe overfulfilment of the implementation of the EU directives on the national level, where individual member states introduce additional requirements going beyond the minimum foreseen in the EU directive.

[7] We have reflected the German provisions on crypto-assets in: *Meier/Kotovskaia* BKR 2021, 348 ff.

[8] See above, fn. 2.

[9] European Commission, Proposal for the Regulation of the European Parliament and of the Council on on contestable and fair markets in the digital sector (hereinafter: Digital Markets Act), 15.12.2020, COM/2020/842 final, available at: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=COM%3A2020%3A842%3AFIN [accessed 26 July 2021].

of an overarching Digital Finance Strategy.[10] With the French EU presidency coming to an end on 30 June 2022, the legal procedures are entering their finish line: trialogue negotiations on the DMA and DSA have already been successfully completed this spring and the negotiations on MiCA have currently reached the final stage.[11] Especially in the light of BigTech cryptocurrencies, these regulations promise to change the legal debate fundamentally.

II. MiCA proposal for a harmonized financial regulation of cryptocurrencies

With regards to financial regulation, the provisions proposed within the draft regulation of Markets in Crypto-Markets (MiCA) could have significant implications for BigTech cryptocurrencies. The MiCA foresees a regulatory framework for various types of cryptocurrencies, differentiating between (1) "asset-referenced tokens" (ART)[12], (2) "e-money tokens" (EMT) [13] and (3) other "crypto-assets", provided that they are not already regulated as financial instruments or (structured) deposits under existing European regulatory provisions. The definition of crypto-assets remains broad, capturing any "digital representation of a value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology".[14] ART purport to maintain a stable value by referencing to value or right, such as fiat currencies that are legal tender (e.g. euro and US dollar), commodities (e.g. gold, oil), or other crypto-assets (e.g. Bitcoin, Ethereum) or to a combination of such assets. EMT are supposed to replicate the value of a currency 1:1. They largely overlap with "e-money" and must therefore meet the requirements prescribed for e-money.[15] Crypto-assets issued by central banks acting in their monetary authority capacity or by other public authorities are excluded from the scope of MiCA regulation.

The intensity of the proposed regulatory requirements differs greatly, with AMT and EMT being subject to considerably stricter requirements than crypto-assets. Despite the fact that the taxonomy is oriented on current market trends, it leaves open practical interpretation issues for market

[10] European Commission, Proposal for the Regulation of the European Parliament and of the Council on a Single Market for Digital Services (hereinafter: Digital Services Act) and amending Directive 2000/31/EC, 15.12.2020, COM(2020) 825 final, available at: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=COM:2020:825:FIN [accessed 26 July 2021].

[11] https://www.consilium.europa.eu/en/press/press-releases/2022/06/30/digital-finance-agreement-reached-on-european-crypto-assets-regulation-mica/ [accessed 04 July 2022].

[12] "Asset-referenced tokens" are defined in Art. 3 (1) (3) of the MiCA proposal as "a type of crypto-asset that purports to maintain a stable value by referring to the value of several fiat currencies that are legal tender, one or several commodities or one or several crypto-assets, or a combination of such assets".

[13] For the definition see Art. 3 (1) (4) of the MiCA proposal: "'electronic money token' or 'e-money token' means a type of crypto-asset the main purpose of which is to be used as a means of exchange and that purports to maintain a stable value by referring to the value of a fiat currency that is legal tender".

[14] Defined in Art. 3 (1) (2) of the MiCA proposal.

[15] Art. 43 of the MiCA proposal.

participants and supervisors. Market dynamics are constantly producing a larger variety of use cases. Especially the actual risk level of new creative, but at the same time arbitrary and risky business models may not be adequately reflected within the catch-all category of "crypto-assets". It is therefore crucial to constantly reevaluate whether the taxonomy and its underlying risk assessments are sustainable for the future. The recent breakdown of "TerraUSD", an algorithmic stablecoin pegged to the US dollar, as well as its sister coin "Luna" has shown that these stablecoins bear peculiar volatility risks and are vulnerable to spillover-effects. Nonetheless, algorithmic stablecoins in general only qualify as "other crypto-assets" under the provisions of MiCA and are not regarded as ART, unless they are referenced to other assets.[16]

Moreover, it is questionable whether the proposed regulatory requirements for "crypto-assets" are proportionate with regards to the disparities between the existing systems. For broad categories of market participants, including small Fintechs, the requirements on the issuance of crypto-assets appear to be manageable as not even an authorization is required. A closer look reveals that the imposed obligations on issuers – essentially consisting of the obligation to be incorporated as a legal entity (Art. 4 (1) of the MiCA proposal), informational requirements (Artt. 5-11 of the MiCA proposal), a consumer withdrawal right (Art. 12 of the MiCA proposal) and organizational requirements (Art. 13 of the MiCA proposal) – could severely impede non-permissioned blockchains. While an acutal prohibition of entirely decentralized proof-of-work systems is off the table of negotiations, currently discussed transparency requirements could come down to a de facto prohibition of proof-of-work mechanisms if their implementation is not feasible in practice.[17]

In contrast to the requirements on the issuance on crypto-assets, the provisions on the issuance of ART require authorization (Artt. 15 (1), 19 of the MiCA proposal), must comply with much stricter informational requirements (Art. 24-29 of the MiCA proposal), governance arrangements (Art. 30 of the MiCA proposal) and even need to fulfill capital requirements of minimum EUR 350 000 (Art. 31 of the MiCA proposal). The Commission seemed to be responding to the precedence case of Facebook's project Libra (later Diem),[18] as it rated the dangers of this type of token particularly high. Especially the proposed requirements on the reserve of assets and limitations for their investment strategies (Artt. 32 ff. of the MiCA proposal) respond to legal issues which have emerged in the context of Libra. Notably, the regulation foresees additional requirements for issuers who are credit institutions that would mean a slightly preferential treatment for tech firms comparing to banks.

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[16] See Rec. (26) of the MiCA proposal.

[17] https://blockworks.co/eus-crypto-bill-mica-heads-to-a-monday-vote-without-proof-of-work-ban/ [accessed on 28 June 2022].

[18] On the legal and economic classification problems the project "Libra" caused: *Schmeling*, SAFE Policy Letter, No. 76, September 2019.

With regards to EMT referring to a fiat currency in order to grant stability, the most relevant provisions require issuers to be authorized as a credit or e-money institution (Art. 43 of the MiCA proposal) and oblige them to issue the tokens at par value, grant a claim to the holders of the token as well as redeem the token at any times (Art. 44 No. 2-4 of the MiCA proposal). Noteworthy for ART as well as for EMT is that the granting of interest is strictly prohibited (Artt. 36, 45 of the MiCA proposal). This might get across business models which promise interest rates for token holders and make these forms of tokens much less attractive for investment purposes.

With a special eye on powerful market players such as BigTechs, the Commission foresees a further differentiation of "significant" tokens within the categories of ART and ERT. Further obligations on issuers of significant AMT (Artt. 39-41 of the MiCA proposal) or EMT (Artt. 50-52 of the MICA proposal) apply if the EBA declares them as significant. The criteria for the evaluation of the significance of tokens are the size of their customer base, market capitalization, the value of the tokens issued, the number and value of transactions, the size of the asset reserve, the significance of cross-border activities and its interconnectedness with the financial system (Art. 39 (1) of the MiCA proposal). Once declared as significant, issuers are mainly subject to additional organizational requirements and closer monitoring by supervisory authorities, especially with regards to their systemic relevance.[19]

While this tiered, systemically oriented system for EMT and AMT seems clearly justified with regards to competitive advantages of bigger players such as BigTechs[20] and their potential systemic threats, it is not understandable why such a distinction is not consistently made for "other crypto-assets" as well. Specific provisions for significant "other crypto-assets" could allow to monitor individual tokens more closely, e.g. highly interconnected tokens such as Bitcoin or particularly risky and arbitrary designs. At the same time, the categories of AMT and EMT are constructed as unattractive business models when comparing with the ordinary "crypto-assets", making arbitrage behavior within the category of "other crypto-assets" even more likely. The idea to make the launch of stablecoins that fall into the categories of ART and EMT more challenging was presumably the reaction on the first attempt of Facebook to introduce the first BigTech's stablecoin, since stablecoins could become a widely used and accepted medium of exchange as they promise higher stability than regular crypto-asset. With regards to market newcomers, while the provisions applicable to "crypto-assets" still seem manageable, the stricter requirements on ART and EMT create additional market barriers for smaller FinTechs, making

[19] See also Art. 39 (2) of the MiCA proposal which requires competent authorities to review the criteria for the significance of a token at least in yearly intervals.

it even more difficult for them to hold up with bigger market players. Furthermore, the currently proposed thresholds for the evaluation of the significance of an EMT or AMT are comparably low, blurring the lines between huge platform providers and medium-sized actors.

III. DSA proposal for a platform-specific regulation

Besides the provisions of the MiCA draft, BigTech companies qualifying as online platforms – which, thinking of Facebook' social network, Amazon's marketplace, Google's search engine and the AppStore, is most often the case – may be subject to the regulations proposed within the Digital Services Act (DSA). Zooming in on all the details of the platform-specific regulation proposed by the DSA exceeds the scope of this paper. With specific regard to the issuance of cryptocurrencies by such providers, it suffices to note that the organizational requirements for "very large online platforms" set forth in the DSA have the potential to adequately complement the financial regulatory provisions. The proposed regulations oblige these platforms to mitigate and monitor systemic risks (Artt. 26, 27 of the DSA proposal) and equip the Commission with in-depth information rights (Art. 31 of the DSA proposal). While the focus of the systemic risk monitoring shall depend on the specific services offered by the platform (see Art. 26 (1) of the DSA proposal), it will be of particular importance in the context of cryptocurrencies issued by BigTechs qualifying as "very large online platforms" that regulators work closely together to effectively supervise potential financial stability risks resulting from the complex interconnections within the risk profile of the platform company.

IV. Ex-ante safeguards for private competition under the DMA proposal

Since a cryptocurrency launched by a BigTech could benefit from great competitive advantages, it is further necessary to take a closer look at the Commission's proposal for a Digital Markets Act (DMA) aiming to address competition concerns in relation to platform companies. In so far as a BigTech exploits its core platform services[21] to promote ancillary services such as financial services,[22] i.e. the issuance of a cryptocurrency, the proposed regulation will apply. Platforms could especially take advantage of their vertical integration, having the technical possibilities as well as the temptation to prioritize their own products and services over those of third-party suppliers. As regards cryptocurrencies, their economic success largely depends on acceptance points in the real economy which BigTechs can provide through their core platform services. Further characteristics of platform

[21] Defined in Art. 2 (2) of the DMA proposal as "(a) online intermediation services; (b) online search engines; (c) online social networking services; (d) video-sharing platform services; (e) number-independent interpersonal communication services; (f) operating services; (g) cloud computing services; (h) advertising services (…)".
[22] See also Rec. (14) and Art. 2 (14) of the DMA proposal for the legal definition of "ancillary services".

companies as network effects resulting from a wide range of users, a strong dependence of business and end users of their intermediary functions, lock-in effects and access to big data can in turn exacerbate the impact on the competitiveness.[23] Especially by providing financial services, BigTechs could accumulate additional meaningful financial data on their clients that could deliver valuable information to optimize other platform services. In sum, the issuance of a cryptocurrency by a BigTech as an ancillary service could contribute to the development of other platform services while also benefit from significant competitive advantages of the established core platform infrastructure so that a cryptocurrency could promptly reach a dominant position on the crypto market.

While existing European antitrust law already provides for several protective measures under Artt. 101, 102 TFEU,[24] the DMA is revolutionary in so far as it initiates a shift towards ex-ante regulation for core platform services. Notwithstanding that the legal ground of the DMA is a contribution to the proper functioning of the internal market according to Art. 114, the proposed rules have a great impact on the European competition law. It enables the European Commission to qualify a company as a "gatekeeper" or a "core platform service provider" and subsequently to apply additional ex-ante mechanisms to it. The provisions inter alia prohibit these actors merging all the personal data collected within different branches internally[25] and treating their own products and services with preference over those of third party providers.[26] Moreover, the DMA empowers the Commission with in-depth information rights, including an access to databases and algorithms, in order to properly carry out proceedings.[27] The European regulator thereby tries to prevent obvious forms of market abuse before a dominant position is reached and ascertained. Nonetheless, Artt. 5, 6 DMA contain a limited list of types of conducts that a gatekeeper shall refrain from that are based on the current market situation and rather envisages marketplace business models, although the similar missconducts can be relevant also for financial markets. It needs to be stressed that the proposed regulations suggest ex-ante mechanisms solely on the EU level. As gatekeepers typically operate cross-border, national legislation could not adequately address all the issues possibly arising from the platform economy and regulatory fragmentation could undermine effective supervision.[28] Therefore, also the new Section 19a of the German Act against Restraints of Competition for Competition Law (ARC)[29] which already introduced a special ex-ante tool for companies "*with overwhelming*

[23] See also Rec. (2) of the DMA proposal.
[24] For a detailed analysis of the existing European and German antitrust provisions see *Meier/Kotovskaia* BKR 2021, 348, 352 ff.
[25] Art. 5 (a) of the DMA proposal.
[26] Art. 6 (1) (d) of the DMA proposal.
[27] Art. 19 of the DMA proposal.
[28] See p. 4 of the DMA proposal.
[29] In force since 19 January 2021.

importance for competition"[30] would not apply for platform companies qualifying as "gatekeepers" under Art. 3 of the DMA due to an explicit primacy of the harmonized European regulations.[31] However, compared to the Artt. 5, 6 DMA, the Section 19a ARC is designed more future-proof, since it contains princible-based rules that are not limited to the examples of anti-competitive conducts listed directly in the law and constitutes a more flexible approach that requires assessment of individual cases. Even if national provisions might be truly progressive and introduce appropriate instruments at the national level, a harmonized solution at the union level is to be supported, as it promotes legal certainty for platform companies on the one hand and gives hope that threats can be effectively identified and managed at union level on the other.

V. Safeguards for monetary policy and sovereign currencies in the light of the MiCA proposal

Competitive benefits of BigTech cryptocurrencies could finally also cause impediments to monetary policy and sovereignty. Due to their economic power, it is also conceivable that cryptocurrencies issued by BigTechs might replace to some extent and therefore compete with sovereign currencies such as the euro. Especially stablecoins could become an accepted medium of exchange and a relatively stable value storage, thus providing an alternative to fiat money.[32] The MiCA proposal makes precautions for possible issues arising in the case of a competition between a private currency and national currencies. In inconspicuous place and solely applicable to ART, Art. 19 para. 2 (c) of the MiCA proposal foresees a landmark decision, as the draft states that: *"Competent authorities shall refuse authorisation where there are objective and demonstrable grounds for believing that …(c) the applicant issuer's business model may pose a serious threat to financial stability, the smooth operation of payment systems or market integraty..." or para 2a (a):"...monetary policy transmission, or monetary sovereignty".* This provision is remarkable, firstly, because it would establish legal grounds for the prohibition of private asset-referenced tokens to limit free market monetary competition for the sake of monetary sovereignty. And secondly,this would be the first financial regulatory norm that takes a position on the relation between financial regulatory and monetary policy objectives, declaring them as equally important aims. With regards to currency competition, there was no legal prohibition since historically the competitiveness of private currencies has been low due to network

[30] For further information on Section 19a GWB (ARC) see: *Meier/Kotovskaia* BKR 2021, 348, 354 f.
[31] See Art. 1 (5) of the DMA proposal.
[32] See p. 3 of the MiCA proposal.

externalities.[33] This might change in the digital age as money becomes immaterial and network externalities suddenly play into the hands of BigTechs having the necessary digital resources and know-how at their disposal. If a restriction of free currency competition due to the changed conditions is politically desired and therefore pursued, it would be coherent not to limit such a systemic decision to ART, but to extend it to other types of private virtual currencies as well since threats emanating from other designs cannot be ruled out beforehand either and will largely depend on the real influence of a BigTech cryptocurrency in the future. Nonetheless, this approach to ensure financial stability and monetary policy can be evaluated as anti-competitive since it limits the free competition and development of the market and new technologies. Strengthening the sovereignty and enhancing clear regulatory framework would also contribute to protection legal tenders. In other words, making legal tenders more attractive for the users may prevent the risk that private cryptocurrency may be indeed competitive with a legal tender.

VI. Conclusion: A right way forward?

The potential power of BigTech cryptocurrencies is just as apparent as their eventual threats to financial, monetary, and economic stability. The MiCA, DSA and DMA proposals could accomplish great progress in mastering these threats. The final version of the MiCA regulation still seems to be an imperfect attempt to establish the all-encompassing framework for cryptocurrencies. Further development of the legal framework, especially the elaboration of a taxonomy of crypto-assets and clearly defined limits to experimentation, would be welcomed. Lack of clear taxonomy and imperfect definition of ordinary "crypto-assets" leaves unanswered questions regarding to other types of private cryptocurrencies that are not asset-referenced (ART) or e-money tokens (EMT). New risky products may cause a need for a review of the MiCA. Disproportional regulation across different types of tokens means high market entry barriers for AMT and EMT that likely would be manageable mostly for big players. However, in terms of the time constraints, it creates some legal clarity, especially for the EU countries that had not introduced national legislation on private cryptocurrencies so far. In addition to the MiCA, platform-specific provisions of the DSA could enable an effective oversight on systemic risks, provided that the competent authorities share their expertise and work closely together. With regards to competition issues, it is to be welcomed that the DMA elaborates ex-ante instruments for platform companies that are harmonized on the EU level, although the current texting may lead to regulatory loopholes and not cover all possible forms of misconduct. Under these provisions, BigTechs

[33] *Fiedler/Gern/Stolzenburg*, in: European Parliament, Study: The Future on Money, Nov. 2019, available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2019/642364/IPOL_STU(2019)642364_EN.pdf [accessed 13 August 2021], p. 9.

issuing cryptocurrencies would need to comply with competition law requirements directly, effectively preventing lasting damage to competition beforehand. Finally, the prohibition of private asset-referenced token for the sake of monetary sovereignty is allowed by the Commission's MiCA proposal. This system decision would be a breaking change of direction in the earlier history of monetary policy. It should therefore, and also because it leaves questions unanswered with regards to other types of private cryptocurrencies, be further refined and well elaborated.