THE EU APPROACH TO DIGITAL CURRENCIES

DIRK ZETZSCHE* & JULIA SINNIG**

I
INTRODUCTION

This article discusses the EU's approach to regulating digital currencies following the enactment of Markets in Crypto-assets Regulation (MiCA[1]). In particular, MiCA seeks to accelerate the uptake of Distributed Ledger Technology (DLT), with privately issued cryptocurrencies among the token variants subject to MiCA.

To ensure financial stability, adequate degrees of investor protection, and market fairness and integrity where gaps exist in traditional EU financial regulation,[2] MiCA sets bespoke "product rules" for cryptocurrencies under the labels of Asset-Related Tokens (ARTs) and E-Money Tokens (EMTs). At the same time, MiCA distinguishes between partially centralized and "fully decentralized crypto assets without an intermediary"[3]—like Bitcoin. MiCA's product rules cover centralized and *partially* decentralized digital currencies, while leaving *fully* decentralized currencies unregulated. At the same time, certain Crypto-Asset Service Providers (CASPs) will be subject to licensing and financial supervision regardless of the extent to which the cryptocurrencies are decentralized.

Based on this taxonomy, we provide an overview of the ART and EMT product rules, finding that the ART rules are particularly burdensome. Some may consider this a strict regulatory response to the global stablecoin project Libra/Diem:[4] MiCA all but prevents privately issued global stablecoins. Compared to ARTs, the rules on EMTs are light-touch, largely piggybacking on existing EU rules on e-money.

For fully decentralized cryptocurrencies, MiCA's rules on CASPs provide the sole protection for token-holders. Here, we lay out the basic pillars of the CASP rules. Essentially, all CASPs are fiduciaries and subject to related governance, asset segregation, and operational risk requirements. Their effectiveness is

This Article is also available online at http://lcp.law.duke.edu/.
*Professor of Law, ADA Chair in Financial Law (Inclusive Finance), and Coordinator, House of Sustainable Governance & Markets, Faculty of Law, Economics and Finance, University of Luxembourg.
**Postdoctoral Researcher, ADA Chair in Financial Law (Inclusive Finance), University of Luxembourg.

1. Council Regulation, 2023/1114, 2023 O.J. (L. 150) (hereinafter *MiCA*).
2. *Id.* pmbl. ¶ 1, 2, and 4.
3. *Id*. pmbl. ¶ 22.
4. *Cf.* Dirk Zetzsche et al., *Regulating Libra*, 4 OXFORD J. LEGAL STUD. 80, 98 (2021).

subject to two limitations. First, MiCA presupposes a crypto-insolvency law, which is in its infancy. Second, MiCA's activity-based rules reflect the state of play in 2020 and does not cover crypto-lending and crypto-staking, which are both of practical importance today. However, some of these services may qualify as collective investment schemes under existing EU fund regulation. Ironically, MiCA, which was designed to fill gaps in EU financial law, needs general EU financial regulation to address its own shortcomings.

The article is structured as follows: we lay out MiCA's taxonomy in Part II, after which Part III discusses the product regulation for ARTs and EMTs, and then Part IV covers the rules on CASPs before Part V concludes.

II
MICA'S TAXONOMY

A. MiCA's Gap-filling Approach

MiCA seeks to fill gaps in existing EU financial regulation. Its scope is best understood by looking at Art. 2 (4) of MiCA, which exempts a set of already regulated financial services and products. As a result of the exemptions, financial instruments—including transferable securities like shares, bonds, and equivalent instruments, as well as financial derivatives—structured deposits, and traditional payment, credit, and e-money services and their providers remain outside MiCA's scope. MiCA focuses on financial products and service providers that were *not* regulated until MiCA. At the same time, MiCA excludes from the outset non-fungible tokens (NFTs).[5] The result of MiCA's gap-filling approach is a distinction between the existing EU financial law acquis and the new financial regulations embedded in MiCA as depicted *infra* (Figure 1). A closer look reveals, however, that the distinction between the existing EU financial law acquis and MiCA is not as clear-cut as it might seem for at least three reasons.

First, the EU Member States have not uniformly implemented the meaning, reach, and scope of the financial products and services exempted by MiCA under Art. 2 (4). Because the interpretation of key terms like "financial instruments" and "transferable securities" varies across EU Member States, there is a lack of uniform interpretation.[6] These terms have a similarly fundamental importance to the terms "securities" and "investment contracts" in United States securities regulation as determined in the *Howey* test.[7] The effects of diverging

5. *Cf. MiCA, supra* note 1, art. 2(3)(4). The exemption does not extend to NFTs issued as a series where the market price of one token determines the value of another. *See* DIRK ZETZSCHE ET AL., REMAINING REGULATORY CHALLENGES IN DIGITAL FINANCE AND CRYPTO-ASSETS AFTER MICA (2023), a publication for the Committee on Economic and Monetary Affairs (ECON), Policy Department for Economic, Scientific and Quality of Life Policies, of the European Parliament.

6. *Cf.* Zetzsche et al., *The Markets in Crypto-Assets Regulation (MiCA) and the EU Digital Finance Strategy*, 16 CAP. MARKETS L. J. 203, 210 (2021).

7. *Cf.* SEC v. Howey Co., 328 U.S. 293, 301 (1946) (defining an investment contract as "an investment of money in a common enterprise with profits to come solely from the efforts of others"). For a

implementation among EU Member States are particularly noticeable in the field of crypto-assets. For example, the European Securities and Market Authority (ESMA) asked the financial services authorities of EU Member States to classify a set of six crypto-assets with investment features. For five of these crypto-assets, the states did not provide a uniform regulatory qualification. Moreover, the majority of EU Member State financial services authorities found that that the existing EU financial law acquis governing financial instruments applied only in four of the six crypto-assets.[8] Because MiCA regulates only that which is not already regulated, disagreement on fundamental concepts already embedded in EU law can lead to regulatory arbitrage across the European single market. These disagreements can also lead to high costs for entrepreneurs attempting to assess whether crypto-asset activity is compliant with EU law.[9] MiCA has not solved these issues.

Second, the list of financial products and services exempt from MiCA pursuant to Art. 2(4) of MiCA is not exhaustive, leading to mixed application of the existing EU law acquis and the new MiCA law in some instances. For example, collective investment schemes will be subject to bespoke investment fund regulation for their core services, but MiCA impacts side services important in the fund context like investment advice and custody.[10]

Third, MiCA relies to some extent on the processes and information established by the existing EU financial law acquis. For instance, documentation on the authorization for the provision of crypto-asset services for entities that have been licensed before under the existing EU law acquis (such as credit institutions and investment firms) are recycled for MiCA licensing purposes.[11] Additionally, the regulation of crypto-assets under MiCA with features of e-money relies on existing e-money regulation discussed below in this Part.

As these three points reveal, MiCA is deeply intertwined with the existing EU financial law acquis. Accordingly, its meaning cannot be assessed without an in-depth understanding of the rest of EU financial law.

B. Token Types Subject to MiCA

In light of this mixed review of MiCA's gap-filling mission, the bespoke definitions of crypto-assets that are subject to MiCA are of the utmost importance. Titles II to IV of MiCA deal with crypto products. In particular, Title III covers ARTs, Title IV handles EMTs, and Title II addresses "other crypto-assets," referring to crypto-assets in MiCA's scope not regulated by Titles III and IV of

comparison with EU law, *cf.* Phillipp Hacker & Chris Thomale, *Crypto-Securities Regulation: ICOs, Token Sales and Cryptocurrencies Under EU Financial Law*, 15 EUR. COMP. & FIN. L. REV. 645 (2018).

8. *Cf.* EUR. SEC. AND MARKETS AUTH., ADVICE ON INITIAL COIN OFFERINGS AND CRYPTO-ASSETS 19–21, Annex 1 (2019).

9. *Cf.* Zetzsche et al. *supra* note 6, at 208f.

10. *Cf.* Zetzsche et al., *Digital Assets, MiCA and EU Investment Fund Law*, at 30, (Univ. New S. Wales L., Working Paper No. 23–27, 2023).

11. *MiCA, supra* note 1, art. 60.

MiCA.

Asset Related Tokens include crypto-assets that are not E-Money Tokens and purport to maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies.[12] The best way to understand this definition is to think of an ART such as Libra: a global stablecoin project referenced to a large basket of international treasuries and high-quality debt securities.[13] By contrast, E-Money Tokens are a type of crypto-asset purporting to maintain a stable value by referencing the value of *one* official currency.[14] Examples thereof include the USDC or the EURC.

C. (Partly) Centralized vs. Fully Decentralized Applications Without an Intermediary

For some crypto-assets, in particular Bitcoin, it is difficult to identify a single token issuer.[15] "[W]here crypto-assets have no identifiable issuer, they should not fall within the scope of Title II, III or IV of [MiCA]."[16] CASPs, which provide one of the services defined in Art. 3 (16) should, however, be covered by MiCA.

The meaning of this statement in the Recitals—which are non-binding—follows from Titles III and IV of MiCA in which the product regulation for ARTs and EMTs requires an issuer *and* the whitepaper meet relevant requirements for product authorization. If one understands an issuer as a central institution issuing units, even though such an issuer may be missing in some cryptocurrency projects, many cryptocurrencies have remained partially centralized. Where they are partially centralized, they remain in MiCA's scope and need an authorization under Titles III and IV MiCA. We distinguish between *partially* and *fully* decentralized setups *infra*, at Part III.7.

III

MICA'S PRODUCT REGULATION FOR ARTS AND EMTS

A. Licensing

MiCA defines the issuance of ARTs and EMTs as a regulated activity. [17] Issuing ARTs and EMTs requires authorization of both the issuing entity and the product itself. First, the issuer of ARTs and EMTs is subject to licensing. As

12. *Id.* art. 3(6).

13. *Cf.* Zetzsche et al., *supra* note 4, at 85.

14. *MiCA, supra* note 1, art. 3(7).

15. *Id.* pmbl. ¶ 22 (hereinafter "Recital 22").

16. *Id.*

17. MiCA Title IV deems EMT's to be e-money under of Council Directive 2009/110, 2009 O.J. (L 267) 7 (EC) (hereinafter 'EMD'), and thus the rules of EMD Title II and Title III apply, subject to additional product requirements set out in EMD Title IV. *MiCA, supra* note 1, tit. IV. The EMD, in turn, refers to Council Directive 2007/64, 2007 O.J. (L 319) 1 (EC) (hereinafter 'PSD I'), which has been repealed by Directive Council Directive 2015/2366, 2015 O.J. (L 337) 35 (EC) (hereinafter 'PSD II'). This multi-referencing makes MiCA Title IV difficult to handle.

credit institutions tend to be licensed, both ARTs and EMTs may be issued by credit institutions—subject to additional MiCA requirements.[18] EMTs may also be issued by electronic money institutions,[19] while ARTs may be issued by certain parties subject to the bespoke requirements set out in Arts. 18, 20, and 21 of MiCA. Second, the requirements for the content of the whitepaper for ARTs and EMTs is meticulously prescribed[20] and a number of product rules are specified including the holders' redemption right, minimum rules on ART and EMT reserves, and reinvestments of funds paid by clients. The product information specified in the whitepaper is subject to review by the National Competent Authority (NCA).

This two-pronged authorization of the issuing entity and the product is similar to the issuance of EU retail investment funds, like Undertaking for Collective Investment in Transferable Securities (UCITS) under the UCITS Directive or European Long-Term Investment Funds (ELTIFs) under the ELTIF Regulation.[21] Similar to the process for UCITS or ELTIF, if the issuing entity is an already licensed credit institution or e-money institution, the authorization process focuses on the product rules.[22] Because ARTs are issued by other entities, the application of Title II MiCA will lead to a full review of the issuer.[23] This legislative setup enables credit institutions—and e-money institutions in the case of EMTs—to function as archetypal multi-issuers of these tokens, while bespoke vehicles are primarily used for project finance in relation to a single token type.

Licensing comes with a set of rules well known from other EU-regulated activities, including on:

- The issuer's program of operations, organization, outsourcing requirements, capitalization, governance, conflicts of interest management, complaints handling, as well as the identity and solidity of main shareholders and the fitness and properness of the issuer's directors[24];

18. *Cf. MiCA, supra* note 1, art. 17 and tit. IV.

19. *Id.* art. 48(1).

20. *Cf. id.* art. 19 and Annex II (describing all the information and "disclosure items" that must be included in a "crypto-asset white paper for an asset-references token," or ART); *cf. id.* art. 51 and Annex III (describing all the information and "disclosure items" that must be included in a "crypto-asset white paper for an e-money token," or EMT).

21. *See* D.A. ZETZSCHE & C.D. PREINER, ELTIFR VERSUS AIFMD Ch. 5 (D.A. Zetzsche ed., Kluwer 2020).

22. *Cf. MiCA*, *supra* note 1, art. 17(1) (outlining the requirements for a credit institution to offer an asset-referenced token [ART] to the public); *cf. id.* tit. IV ("Requirements to be fulfilled by all issuers of e-money tokens [EMTs].").

23. *Id.* art. 18(2) ("Legal persons . . . that intend to offer to the public . . . [an ART] shall submit [an] application" containing all the information in Art. 18, para. 2).

24. *Id*. In particular, relating to ARTs, see the application requirements in art. 18, para. 2, subsections (d) ("programme of operations"), (f) ("issuer's governance arrangements"), (g) ("cooperation arrangements with specific crypto-asset service providers"), (h) ("the identity of the members of the management body of the applicant issuer"), (i) ("proof that the [management body has] sufficiently good repute . . . "), (j) ("proof that any shareholder . . . [of the] issuer is of sufficiently good repute"), (m) ("a description of the contractual arrangements with the third-party entities"), and (q) ("a description of the

- The modification of information provided in support of the application, in particular content of the whitepaper[25] and on the (authorized) management body[26];
- The granting, refusal, and withdrawal of applications[27];
- The acquisition of licensed entities[28]; and
- Sanctions in cases of violations and infringements.[29]

B. Mandatory Disclosure and Statutory Liability for Whitepapers

Another key point of MiCA's product rules is mandatory disclosure. Initial disclosure takes place via a whitepaper, which contains details on the duration of the offering, the redemption, and background on the issuer and related parties.[30] The whitepaper must be available free of charge on the issuer's website.[31]

To ensure the effectiveness of disclosure rules, MiCA introduces statutory liability for the whitepaper's content.[32] Contrary to other EU financial regulations which assign liability to the issuer as an entity only, the "members of [the issuer's] administrative, management or supervisory body shall be liable to a holder" for any "information that is not complete, fair or clear, or that is misleading."[33] At the same time, any "contractual exclusion or limitation of civil liability . . . shall be deprived of legal effect."[34] The onus of proof to show evidence of incomplete, unfair, or unclear information is on the token-holders.[35] The foregoing does not preclude any culpability or 'fault' requirement under the domestic law of the Member States. Nevertheless, the liability of board members represents a sharp sword, and even more so in the case of two-tier boards where potentially both the management body in charge of day-to-day business and the

applicant issuer's complaints-handling procedures"). The application requirements of Article 18 often refer to Articles 31 through 35 for further guidance. *Id.* art. 18. Relating to EMTs, *see id.* art. 48(3) ("Requirements for the offer to the public or admission to trading of e-money tokens") in conjunction with *id.* art. 3(1) ("Definitions") and *id.* arts. 5(a)–(i) ("Admission to trading of crypto-assets other than asset-referenced tokens or e-money tokens" [PSD1 (EMT)]).

25. *Cf. id.* art. 25 ("Modification of published crypto-asset white papers for asset-referenced token"); *cf. id.* art. 51 ("Any significant new factor, any material mistake or any material inaccuracy . . . shall be described in a modified crypto-asset white paper").

26. *Id.* art. 33 ("Notification of changes to management body"); *id.* arts. 48(3), 3(1), and 14(5)(i) (PSD1 (EMT)).

27. *Id.* arts. 21, 24, 48(3), 3(1), and 10–12 (PSD1 (EMT)).

28. *Cf. id.*, tit. III(4) ("Acquisitions of issuers of asset-referenced tokens"); *id.* at 48(3) and art. 3(3) (EMD).

29. *Cf. id.* tit. VII(3) ("Administrative penalties and other administrative measures by competent authorities").

30. *Cf. id.* Annex II (ART) and III (EMT).

31. *Id.* arts. 28 (ART) and 51(13) (EMT).

32. *Cf. id.* arts. 26 (ART) and 51 (EMT).

33. *Id.* arts. 26(1) and 52(1).

34. *Id.* arts. 26(2) and 52(2).

35. DIRK ZETZSCHE & JANNIK WOXHOLTH, THE EU LAW ON CRYPTOASSETS (CUP 2025).

supervisory board may be liable.[36] National law of the Member States may provide even more stringent liability rules, which may include a reversed burden of proof regarding culpability or fault; yet in most instances these laws focus on the entity's liability rather than that of the board members.[37]

Additional rules seek to ensure that "marketing communications" accompanying the whitepaper are clearly marked, and that marketing language and content is fair, clear, not misleading, and consistent with the information provided in the whitepaper.[38] The issuers must include in all marketing communications that ART and EMT holders have a statutory right of redemption against the issuer at any time.[39] While market sounding is allowed, marketing communications must not be disseminated prior to the publication of the whitepaper.[40] They must be published on the issuer's website and notified to the NCA upon request.[41]

For ART issuers, ongoing disclosure to the NCAs or the EBA is required by quarterly reports.[42] Moreover, ART issuers must disclose at least monthly on their website the amount of ARTs in circulation and the value and composition of their reserve assets.[43] To ensure that the disclosures on reserve values are accurate, the ART issuers must also disclose full and summary annual audit reports on the reserve assets.[44] ART issuers must further disclose events that have had or are likely to have a significant impact on the value of the ART or on the reserve assets; the duty exists even where the ART is not admitted to trading.[45] In addition, Title VI of MiCA mandates issuers of ARTs and EMTs admitted to trading—or those about to be traded—to disclose inside information that may have an impact on the token value to the public in a manner prescribed by EU regulation.[46] All such disclosures must remain on the issuer's website for five years. Prior to this publication, the information must be neither used for trading, nor disclosed through other channels.[47]

C. Fiduciaries under Statutory Law

Arts. 27 and 32 of MiCA clarify that ART issuers are fiduciaries. Rather than pursuing their own interests, they must act in the best interests of the ART

36. *Id.*
37. *Id.*
38. *MiCA*, *supra* note 1, arts. 29(1) (ART) and 53(1) (EMT).
39. *Id.* arts. 29(2) (ART) and 53(2) (EMT). The statutory redemption rights are mandated by Art. 39 and Art. 49. *Id.* arts. 39 and 49. The statutory redemption rights must also be disclosed in the White Paper. *Id.* arts. 19(6) and 51(6).
40. *Id.* arts. 29(6) and 53(6).
41. *Id.* arts. 29(3), (5) and 53(3), (5).
42. *Id.* arts. 22(1) and (2).
43. *Id.* art. 30(1) and pmbl. ¶ 48 (ART) [hereinafter Recital 48 (ART)].
44. *Id.* art. 30(2).
45. *Id.* art. 30(2) and pmbl. ¶ 48 (ART).
46. *Id.* art. 88(89).
47. *Id.* art. 88(90).

holders and treat them equally absent disclosure of anticipated preferential treatment in the whitepaper and applicable marketing communications.

In line with their fiduciary status, MiCA requires ART issuers to "act honestly, fairly and professionally."[48] Moreover, they must communicate with the prospective token-holders "in a fair, clear and not misleading manner."[49] Finally, MiCA subjects ART issuers to advanced duties to manage conflicts of interest. They must take "appropriate steps to identify, prevent, manage and disclose conflicts of interest arising from the management and investment of the reserve of assets referred to" in Art. 36 of MiCA.[50]

Similarly detailed provisions do not exist for EMT issuers. One could argue that the personal claim of EMT holders against the issuer substitutes for the fiduciary status, similar to credit institutions that do not owe fiduciary duties to deposit clients because preserving their balance sheet is in their own interest rather than that of their clients. Yet, two aspects push EMT issuers closer to the fiduciary status of ART issuers. First, EMT issuers must safeguard clients' funds shortly after they are paid to them.[51] Second, there is a need to set up a recovery and redemption plan.[52] These duties support the fiduciary status of EMT issuers, as well as the application of the wider duties specified in Arts. 27 and 32 of MiCA.

D. Redemption Right and Reserve Management

Any holder of ARTs and EMTs has an individual redemption right that may be exercised daily, subject to the conditions laid out in the whitepaper.[53] Prior to MiCA, the redemption right was common practice at large stablecoin offerings, but its details were often subject to hidden and poorly understood procedural conditions. Exercising the redemption right also contributed, in some cases, to costs or fees. Furthermore, the stablecoins often lost their stability when the underlying reserves were uncertain, or when the custodians who stored the reserves experienced pressure.[54]

MiCA seeks to address these issues using a number of safeguards. First, MiCA establishes a statutory redemption right; the basic conditions for redemptions are statutorily prescribed and all conditions for redemptions must be

48. *Id.* art. 32(2).

49. *Id.*

50. *Id.* art. 32(2).

51. EMD, *supra* note 17, art. 7(1).

52. Title III, Ch. 6 MiCA (ART) and Art. 55 MiCA (EMT).

53. The statutory redemption rights are mandated by arts. 39 and 49. *Id*. arts. 39 and 49. The statutory redemption rights must also be disclosed in the White Paper. *Id.* arts. 19(6) and 51(6).

54. *See* Nick Baker, *USDC Stablecoin Depegs, Crypto Market Goes Haywire After Silicon Valley Bank Collapses*, COINDESK, (Mar. 11, 2023), https://www.coindesk.com/markets/2023/03/11/usdc-stablecoin-and-crypto-market-go-haywire-after-silicon-valley-bank-collapses/ [https://perma.cc/F6HA-4M5Q]; *see also* ZETZSCHE, *supra* note 5, at 31–32 (on de-pegging of US stablecoins when reserve banks got into financial difficulties).

disclosed in the whitepaper.[55] Second, MiCA prescribes a mandatory handling of reserves.[56] Third, MiCA prescribes the setting into motion of a recovery and redemption plan once the redemption is at risk and the issuer is unable to meet its obligations.[57] The triggering of the plan may prompt the dissolution of the ART/EMT.[58]

1. Redemption Right

MiCA grants holders of ARTs and EMTs a statutory redemption right against the issuers, which may be exercised free of charge at all times.[59] Issuers that sell the tokens in return for funds other than e-money must provide the option to redeem in the same currency (for example: EUR => EUR); other crypto-assets in this case do not qualify as 'funds.'[60] A stablecoin handing out tokens—for example, in return for BTC—does not fall under the obligation to redeem tokens from token-holders in BTC.

Issuers must establish, maintain, and implement clear and detailed policies and procedures with respect to such a permanent right of redemption. All of these policies must be disclosed in the whitepaper.[61] With regard to ARTs, stipulations of these policies may include thresholds, exercise periods, and settlement timeframes, as well as liquidity management, reserve management, and a valuation mechanism as to the reserves that shall effectuate the exercise of the redemption right.[62]

When issuers of ART are not able to meet their obligations, the redemption right of ART token holders concerns the reserve assets.[63] In case of EMT, all token-holders have a direct claim against the credit institution that issues as EMTs;[64] here, the reserve rules primarily contribute to the financial stability of the credit institutions.

2. Managing the Reserve Assets

To effectuate the redemption right, MiCA stipulates rules on the management and safeguarding of reserve assets.[65] These are more pronounced for ARTs

55. *See MiCA, supra* note 1, Cf. Title III, Ch. 6 MiCA (ART) and Art. 55 MiCA (EMT).

56. *Id.* art. 34.

57. *Id.* arts. 39 and 49.

58. *Id.*

59. *Id.* arts. 35 and 55.

60. *Id.* art. 3(14). MiCA defines funds by reference to Art. 4, point (25) of Directive (EU) 2015/2366 (PSD II). This definition includes cash, cash substitutes and e-money, and excludes crypto-currencies and other crypto-assets. This means that a stable coin handing out tokens in return for Bitcoin does not fall under this provision.

61. *Cf. id.* arts. 19(6) and 51(6).

62. *Id.* art. 39(2).

63. *Id.* art. 39(1).

64. *Id.* arts. 49(2) and (4).

65. For EMTs, *see id.* arts. 36(6), and 48(3). For Significant EMTs, *see id.* arts. 7 (EMD), 58(1), and 36.

than for EMTs, but the underlying principles are identical. Furthermore, we find that the legislative mechanics for reserve assets are similar to those found in investment fund legislation requiring liquidity of fund assets to allow for an effective redemption right.

First, MiCA requires ART and EMT issuers to ***have* a reserve at all times**, sufficient to cover the risks from the underlyings and at a liquidity level in line with EBA guidelines[66] and adequate to satisfy the holders' redemption requests.[67] Similar to sub-funds, each of the token types necessitates its own reserves: the reserve for each ART and Significant EMT[68] must be managed prudently and separately, and must be legally segregated from the issuers' own assets as well as the reserve assets for other tokens[69] "so that creditors of the issuers [and other token reserves] have no recourse to the reserve of assets, in particular in the event of insolvency."[70] MiCA, however, foresees a pooled reserve in case different ART and EMT issuers offer the same token to the public.[71] For ordinary EMTs issued by a singular credit institution or e-money institution, Art. 49(2) of MiCA grants a claim against the "*issuers*" of those EMTs.[72] This language suggests that MiCA is open to multiple issuers of *one* type of EMT. Any issuance and redemption of ARTs and Significant EMTs must be matched by a corresponding increase or decrease in the reserve of assets. Based on market prices of reserve assets using mark-to-market pricing as prescribed for EU Money Market Funds,[73] the aggregate value of ART reserves must be at least equal to the aggregate value of the claims held by all token-holders collectively of that token type.[74]

Second, MiCA focuses on the stabilization mechanisms of ARTs and EMTs. Again, MiCA requires issuers to set out a stabilization policy for ARTs detailing

66. *Cf. id.* arts. 36(4), 58(1), and 48(3).

67. *Id.* art. 36(1). For Significant EMTs, *see id.* art. 58(1). Pursuant to Art. 49(4) of MiCA, EMT holders may redeem their tokens by asking the issuer "at any time and at par value, [to pay] in funds, other than electronic money, the monetary value of the e-money token held to the holder of the e-money token."

68. Significant EMTs are defined by Art. 56 (1), referring to Art. 43 (1) MiCA (definition of Significant ARTs) as those that fulfil at least three of the criteria listed in Art. 43 (1) MiCA. These criteria shall be subject to specification by way of delegated acts. The criteria are notably: the number of token holders exceed 10 million; the value, market capitalisation or size of the reserve of assets is higher than EUR 5 billion; the average number and average aggregate value of transactions in the ARTs/EMTs per day is higher than 2.5 million transactions and EUR 500 million; the issuer of the ART/EMT is a provider of core platform services designated as a gatekeeper under Regulation (EU) 2022/1925; the issuer has significant activities on an international scale; the token or issuer is interconnected with the financial system; and the issuer issues at least one additional ART or EMT and provides at least one crypto-asset service.

69. *Id.* arts. 36 (2), (5), and 37 (2). For Significant EMTs, *id.* art. 58(1).

70. *Id.* art. 36 (2). For Significant EMTs , *id.* art. 58(1).

71. *Id.*

72. *Id.* art. 36(5).

73. *Cf. id.* arts. 36(11) and (12). For Significant EMTs, *id.*, art. 58(1). The pricing must be based on good data, follow recognized valuation procedures and set the price on the conservative end of the spectrum. Where data quality is poor, valuation shall aim at an accurate estimate of the intrinsic value of the reserve assets. For details, *see* arts. 2 (8), (9) of Regulation (EU) 2017/1131 on money market funds.

74. *MiCA*, *supra* note 1, arts. 36(6) and (7). For Significant EMTs, *id.* art. 58(1).

the underlyings of the ART, their allocation, methods of repurchase, and a detailed risk assessment, among other details relevant to the stability of the DeFi system.[75]

Third, MiCA tries to make sure that the valuation of reserve assets is accurate by mandating an independent audit of the ART reserves every six months.[76] Audit results must be submitted to the NCA without delay, no later than six weeks after the valuation date.[77] This valuation forms the basis for the ongoing disclosure of ART and Significant EMT reserve assets as provided for in Art. 30 of MiCA. The results of the audit of ART and Significant EMT reserves must be published under regular circumstances two weeks after notification to the NCA.[78] Exemptions apply for issuers that execute a recovery and redemption plan—see the next Part—and when a delay of disclosure may be necessary to protect token-holders and ensure the resilience of the financial system.

Fourth, reserve assets must be safeguarded at all times based on adequate policies and procedures, starting not later than five business days upon their receipt.[79] For ARTs and Significant EMTs, according to the applicable custody procedures, a reserve asset must:

- Neither be encumbered by nor pledged as a financial collateral arrangement;
- Be held in custody in accordance with Art. 37 (6) MiCA;
- Be distributed in a manner that prevents risks of concentration of reserve assets and concentration of custodians holding the reserve; and
- Be available to issuers promptly to meet any holders' redemption requests.

A qualified custodian, separate from the issuer, must hold reserves. The issuer's board must select the custodians in line with the custody policy and consistent with the enhanced duties of care,[80] including:

- Credit institutions separate from the issuer;
- For financial instruments only: investment firms under MiFID; and
- For crypto-assets as defined by MiCA only: CASPs subject to Title V of MiCA.

The custodians must be appointed by way of written contract, act as fiduciaries of issuers and token-holders, and must provide custody in a segregated account opened in the custodians' books or registers, and physically delivered where possible. For crypto-assets, custodians must hold the private cryptographic

75. *Id.* arts. 36(8) and 58(1).

76. *See id.* art 58(9).

77. *Id.* arts. 36(9), (10), and 58(1) (modifying the first point in time that this requirement applies).

78. *Id.*

79. *Id.* art. 37. For Significant EMTs, *id.* art. 58(1); *see also id.* arts. 48(3), 54, and 7(1) EMD. While the methods of safeguarding for e-money are specified in the law of the Member States (Art. 7 (5) EMD), custody is one accepted method of safeguarding.

80. *Id.* arts. 37(2)–(5). For Significant EMTs, *id.* art. 58(1). For EMTs, *id.* arts. 48(3) and 7.

keys. Additionally, the custodian must register all assets in the name of the issuer so that the funds can be clearly identified.[81] Custodians, issuers, and token-holders must avoid conflicts of interest. If conflicts do exist, the issuer must establish a functional and hierarchical system of separation and identify, monitor, and manage conflicts on behalf of token-holders.[82]

To function on behalf of ART/EMT issuers and token-holders, the custodian must accept liability for the loss of financial instruments or crypto-assets vis-à-vis the issuer and token-holders: the custodian "shall compensate, or make restitution, to the issuer . . . of an identical type or the corresponding value without undue delay." However, the custodian "shall not be liable for compensation or restitution where it can prove that the loss has occurred as a result of an external event beyond its reasonable control, the consequences of which were unavoidable despite all reasonable efforts to the contrary."[83] Disclosure of a private key by the custodian to an inside or outside attacker—which forms the main type of asset misappropriation in relation to custodians—does not constitute such an "external event."[84] At first glance, one would wonder whether issuers of ARTs and EMTs find such custodians ready to assume liability, yet Art. 75 of MiCA on custody provided by CASPs foresees the same liability clause, and EU fund depositaries are traditionally subject to similar, if not stricter, liability clauses with regard to the loss of financial instruments.[85]

Fifth, MiCA prescribes how reserve assets must be invested.[86] Eligible ARTs and Significant EMTs are "highly liquid financial instruments—to be held in custody as previously prescribed—"with minimal market risk, credit risk and concentration risk."[87] The investments shall be capable of being liquidated rapidly with minimal adverse price effect."[88] UCITS are eligible "where that UCITS invests solely in assets as further specified by EBA in accordance with paragraph 5 and where the issuer of the asset-referenced token ensures that the reserve of assets is invested in such a way that the concentration risk is minimized."[89] Issuers of ARTs and Significant EMTs have to bear all profits or losses, "including fluctuations in the value of the financial instruments, and any counterparty or

81. *See id.,* arts. 37 (6)–(8). For Significant EMTs, *id.,* art. 58(1). For EMTs, *id.* at arts. 48(3) and 7 (EMD).

82. *Cf. id.,* arts. 37(9) and 31. For Significant EMTs, *id.,* art. 58(1). For EMTs, *id.* arts. 48(3) and 7 (EMD).

83. *Cf. id.* art. 37(10). For Significant EMTs, *id.,* art. 58(1). For EMTs, *id.* arts. 48(3) and 7 (EMD).

84. *See id.* art. 37.

85. *Cf. id.* art. 22 *et seq*. UCITSD; art. 21 AIFMD. For details, *see* Hooghiemstra in Zetzsche, AIFMD, 3rd. (2020), Ch. 16.

86. *Cf. id.* art. 38 (ART) and for Significant EMTs, art. 58 (1) MiCA. For Significant ARTs, art. 45(3) MiCA requires reserve assets to have "a resilient liquidity profile that enables issuers of significant asset-referenced tokens to continue operating normally, including under scenarios of liquidity stress."

87. *See id.*

88. *See id.*

89. *See id.*

operational risks that result from the investment of the reserve of assets."[90] This results in the issuer assuming the position of de-facto guarantor, which is undoubtedly inconvenient. MiCA's reserve requirements for ordinary EMTs are not as detailed, but the E-money Directive (EMD) to which Art. 48 (3) MiCA refers, rests on the same principles.[91]

Finally, MiCA prevents issuers from granting an interest or any other financial benefit on the token value related to the duration for which the token is held, regardless of whether this is offered by the issuer or any third party.[92] This is to avoid incentivizing large-scale investments by offering overly generous returns or even fixed interests, which would blur the line even further between ARTs/EMTs on the one hand, and deposits and money market funds on the other.

3. Recovery and Redemption Plans

Issuers of ARTs and EMTs are required to set up and notify the NCA[93] within six months after authorization of the issuer or whitepaper pursuant to Arts. 17 and 21 MiCA. In the case of EMTs, notice is similarly required following the initial offering or trading of the token, respectively.[94] Issuers need to set up a recovery and a redemption plan in line with EBA guidelines, as a precautionary measure in case the issuer fails to comply with the reserve requirements.[95] Updates are to be filed whenever due.[96]

The main features of a recovery plan include the following: how the issuer's services with regard to the ART/EMT are to be preserved, how timely operations will be recovered, and how the issuer's obligations will be fulfilled when the operations may be at risk of disruption. To a large extent, recovery plans may foresee a halt of daily redemption—for example, the "closing" of the "open-ended" token system by way of liquidity fees on redemptions, limits on redemptions during any working day, and suspension of redemptions.[97]

The NCA may order the issuer to apply or update any of the measures

90. *See id.*

91. *Cf. id.* art. 54 (EMT) (requiring that at least 30% of the funds received are deposited in separate accounts in credit institutions, while "the remaining funds must be invested in secure, low-risk assets that qualify as highly liquid financial instruments with minimal market risk, credit risk and concentration risk, in accordance with Article 38(1) of this Regulation, and are denominated in the same official currency as the one referenced by the e-money token.").

92. *Cf. id.* arts. 40 (ART) and 50 (EMT). On EMTs, *see also* ZETSCHE & WOXHOLTH, *supra* note 35.

93. Where under national law the NCA is different from the respective resolution and prudential supervisory authorities, these authorities are to be informed in parallel. In case of a redemption plan, the authority in charge of resolutions may make recommendations in regard to the plan.

94. Often credit institutions that are already licensed issue ARTs or EMTs. While Article 46 of MiCA on ARTs does not relate to this case, Article 55 of MiCA on EMTs does by specifying the initial date of a public offering or trading as point of reference. We hold that the same date must be the reference date in this case where an already licensed institution offers ARTs.

95. *MiCA, supra* note 1, tit. III(5) and art. 55 (EMT).

96. *Id.* art. 85(1) (EMT).

97. *Id.* art. 46(1) (ART); *id.* art. 55(1) (EMT).

specified in the plan when the issuer fails to comply with reserve management requirements or when the issuer's financial condition is deteriorating.[98] The NCA may also order the temporary suspension of redemption if doing so would be in the interest of the token-holders or financial stability. In this regard, we find an analogy to "bank runs"—where remaining depositors are exposed to the risk of the bank's default. We also find analogy to open-ended funds useful, where speedy redemptions of some unitholders may put those staying in the fund at a disadvantage, as these unitholders bear the valuation and liquidity risks related to the assets remaining in the fund.[99] For similar reasons, the NCA may suspend redemptions.

The redemption plan shall outline a response should the issuer be unable or unlikely to meet its obligations, including in the event of insolvency, resolution, or withdrawal of authorization. Once such an emergency state is recognized, the plan will then be executed by way of the NCA's order.[100]

The redemption plan shall "demonstrate the ability of the issuer . . . to carry out the redemption of the outstanding asset-referenced token issued without causing undue economic harm to their holders or to the stability of the markets of the reserve assets."[101] All in all, the redemption plan shall ensure the equitable treatment of all token-holders and that these holders receive their monetary value from the proceeds of selling remaining reserve assets.[102] The plan shall also provide for the orderly dissolution of the token system, by way of contractual arrangements, procedures, and systems (for instance, the designation of a temporary administrator).[103] It should also include measures aimed at maintaining any critical activities by issuers or third-party entities necessary for orderly redemption.[104]

E. European Passport

The authorization of issuers and whitepapers is valid for offers all across the EU.[105] Any intent to offer ARTs and EMTs across borders must be specified in the application for authorization, and the reviewing NCA will forward the application to the NCA of the relevant host Member State.[106]

98. *Id.* art. 46(3) (ART); *id.* art. 55(1) (EMT).

99. *See* William A. Birdthistle, *Breaking Bucks in Money Market Funds* (2010), WIS. L. REV., 1155, pp. 1168f, 1177f (2010) (discussing runs on money-market funds).

100. *MiCA, supra* note 1, art. 47(1) (ART), art. 55 (EMT).

101. *Id.* art. 47(2) (ART), art. 55 (EMT).

102. *Id*.

103. *Id*.

104. *Id*.

105. *MiCA*, *supra* note 1, art. 16(3)–(4) (ART). The European Passport for issuers of EMTs follows from Art. 48 (3) of MiCA in conjunction with Art. 3 (1) E-money Directive, referring to the passporting rules of Articles 17, 25 of the first Payment Services Directive (PSD 1).

106. *MiCA*, *supra* note 1, arts. 21(5), 25(5) (ART); art. 25 PSD1 (EMT).

F. Proportionality and Size Limits

In relation to the issuing size, transaction numbers, and transaction volume taking place with a given ART and EMT, the supervisory requirements become increasingly strict, as shown in Tables 1 and 2.

Table 1: Supervisory Measures for EMTs in Relation to Issuing Size, Transaction Numbers, and Transaction Volume

Supervisory Measure	**MiCA Art.**	**EMT Issues Affected**
Whitepaper + Liability + Marketing Rules	Art. 48 (4) and (5)	All issues
License	Art. 48 (1) i.c.w. Art. 9 (1) EMD	Issues starting from EUR 5 million
Own Funds	Art. 48 (1) i.c.w. Art. 5 EMD	1) The higher of EUR 350,000 *or* 2% of reserve assets under Art. 36 MiCA 2) Risk-based adjustment risk-management processes, risk loss databases, internal controls: *plus/minus* 20%
EBA supervision (if 3 out of 6 criteria are met)	Arts. 43 and 56	1) >10 million users; 2) > 2.5 million transactions & EUR 500 million trans-action value 3) Issuer is provider of core platform services designated as gatekeepers under Reg 2022/1925 4) International significance in payments and remittances 5) Interconnectedness with financial system 6) Issuer to issue at least one more ART/EMT and one crypto-asset service
Intensified Operating Requirements	Art. 58	1) Enhanced risk management 2) Diversified CASPs 3) Enhanced liquidity management 4) Liquidity stress testing 5) Increased own funds

Table 2: Supervisory Measures for ARTs in Relation to Issuing Size, Transaction Numbers, and Transaction Volume

Supervisory Measure	**MiCA Art(s).**	**ART issues affected**
Whitepaper + Liability	Art. 16 (2) (a)	All issues
License	Art. 16 (1)	Issues starting from EUR 5 million
Own Funds (in Tier 1 Capital)	Art. 35	1) The higher of EUR 350,000 *or* a quarter of the fixed overheads of the preceding year *or* 2% of reserve assets under Art. 36 MiCA 2) Risk surcharges: a) risk analysis: plus 20% b) stress tests: plus 40%
Quarterly Report to NCA	Art. 22 (1) and (2)	From EUR 100 million all issues; below when required by NCA
Automatic Issuance Stop *plus* Plan to Reduce Volume	Art. 23 (1)	Where on average in last quarter per day there were 1 million transactions *plus* EUR 200 million aggregate transactions value in 1 single currency area
EBA Supervision (if 3 out of 6 criteria are met)	Art. 43	1) >10 million users; 2) > 2.5 million transactions & EUR 500 million transaction value per day 3) Issuer is provider of core platform services designated as gatekeepers under Reg 2022/1925 4) International significance in payments and remittances 5) Interconnectedness with financial system 6) Issuer to issue at least one more ART/EMT and one crypto-asset service
Intensified Operating Requirements	Art. 45	1) Enhanced risk management 2) Diversified CASPs 3) Enhanced liquidity management

		4) Liquidity stress testing 5) Increased own funds

The common feature of both EMTs and ARTs is the EBA supervision of important tokens, which can have potential impacts on the traditional financial system. Such supervision reflects the cross-border nature of large cryptocurrencies in the EU and demonstrates the EBA's role in preventing systemic risk in the EU.

Furthermore, Table 2 shows that once ARTs surpass certain size and transaction thresholds, MiCA's rules for ARTs are more severe and strict than similar rules for EMTs. Two distinctions stand out: Art. 35 of MiCA on own funds merely foresees risk-based surcharges, and no benefits in the event of outstanding profits. Further, once an ART becomes practically important in a given currency area, i.e. when the average number and average aggregate value of transactions per day associated to uses as a means of exchange within a single currency area is higher than 1 million transactions and EUR 200,000,000 respectively[107], a statutory issuance limit prevents its further growth. This issuance limit is inserted to prevent any single privately issued ART from superseding the importance of the central-bank-issued currency, as contemplated by the Libra project—which targeted all 1.2 billion Facebook users as users of Libra coins. Note that it is most likely that the size limit would be surpassed in the Eurozone—an area with 350 million inhabitants and a GDP exceeding EUR 15.6 trillion—whenever an ART is meaningful and reasonably liquid. Accordingly, the size limit is a considerable disincentive to setting up an ART in the first place.

G. Exemption for Fully Decentralized Applications Without an Intermediary

Titles III and IV of MiCA specify product regulations for ARTs and EMTs—requiring an issuer or an "other undertaking." The latter qualifies only to the extent that "their legal form ensures a level of protection for third parties' interests equivalent to that afforded by legal persons and if they are subject to equivalent prudential supervision appropriate to their legal form."[108] This provision tends to exclude sole traders and simple partnerships as well as loose contractual relations among contributors to the undertaking. In decentralized systems, the owners of the DLT's nodes that collectively constitute the distributed ledger issue a token. Even when the collective qualifies as a standard general partnership, Arts. 16 and 59 of MiCA exclude these loose organizations from functioning as issuers.

These rules, based on the premise that the issuer of cryptocurrencies shall be

107. *Cf. MiCA*, *supra* note 1, art. 23(1).

108. *Cf. MiCA*, *supra* note 1, art. 16(1)(a) (ART); *id.* art. 59(3) (EMT).

regulated, reflect the fact that for some crypto-assets, in particular Bitcoin, it is difficult to identify a single token issuer that could be required to comply with Titles II and III MiCA.[109] Crypto-asset service providers, however, should be covered by MiCA. While under many laws of EU Member States, as well as in US private law, a group of individuals may form a simple partnership with legal capacity yet without legal entity status,[110] it follows from Art. 18 (2) (b) of MiCA that only legal entities qualify as issuers.

Nevertheless, many cryptocurrencies have remained in a state of *partial* centralization. Moreover, partially centralized and partially decentralized firms remain, as Recital 22 states, within the scope of Titles III and IV MiCA. This leads to the question of how to distinguish between partially centralized and partially decentralized firms. To do so, one hint could follow from the fact that Recital 22 refers to the lack of an intermediary. The term "intermediary" is not defined in MiCA. In traditional terms, an intermediary would act either on-balance or off-balance and modify the duration, nature, time, risks, and other features of the asset or cash flow. Within that broad meaning, however, all DeFi systems come with an intermediary function as it refers to the purpose of "doing something" with the clients' funds or crypto-assets. One could try to define intermediaries by examining the services listed in Art. 3 (16) of MiCA, yet this blurs the CASP function with the issuer function. A CASP is a fiduciary acting on behalf of its clients,[111] while an issuer collects proceeds from token-holders to grow its own crypto ecosystem—that is, an issuer acts on its own accounts, and an issuance is an activity for the issuer itself.

In order to delineate between partial and full decentralization, we propose asking whether there is at least one entity, or group of entities, controlling functions material to the issuance. Under such an inquiry, custody or exchange services or other crypto-asset services would not qualify since they are regulated separately. For instance, in some systems one entity—often a developer firm—controls the issuance process by developing and controlling the algorithm that issues tokens or its governance process.[112] Under this control concept, at least partial centralization of the issuance is satisfied and the control-holders are to be treated as issuers under Titles III and IV MiCA.

---

109. *See MiCA*, *supra* note 1 at pmbl. ¶ 22 ("where crypto-assets have no identifiable issuer, they should not fall within the scope of Title II, III or IV of [MiCA]").

110. *Cf.* Zetzsche et al., *Distributed Liability of Distributed Ledgers*, 2018 ILL. L. REV. 1361, 1391, 1400f (Oct. 20 2018); *see* Aleksandar Gilbert, *Governance Tokens Might Come With Legal Liability, US Judge Says - bZx DAO and Founders Were Sued After $55M Hack*, THE DEFIANT (Mar. 30 2023) https://thedefiant.io/gov-tokens-legal-risk [https://perma.cc/NSE5-VGHS].

111. *See MiCA*, *supra* note 1, art. 66; *cf. infra* at IV.

112. *See* Linn Anker-Sørensen & Dirk A. Zetzsche, *From Centralized to Decentralized Finance: The Issue of 'Fake-DeFi* (Dec. 22, 2022) http://dx.doi.org/10.2139/ssrn.3978815 [https://perma.cc/2CK2-9VR2]; Mitchell Goldberg & Fabian Schär, *Metaverse Governance: An Empirical Analysis of Voting Within Decentralized Autonomous Organizations*, J. OF BUS. RSCH. (2023) https://www.sciencedirect.com/science/article/pii/S0148296323001224 [https://perma.cc/MP9Q-938R].

IV

MICA'S RULES ON CRYPTO-ASSET SERVICE PROVIDERS

A. Scope of MiCA's CASP Rules

1. Bespoke Rules for Crypto-asset Services

The bespoke rules for CASPs in Title V MiCA cover the services defined in Art. 3 (1) (16) MiCA in a long list mimicking MiFID investment services with regard to crypto-exchanges[113] and crypto-asset brokers.[114] These rules also defined the transfer of crypto-assets from one DLT address to another for clients as a regulated activity.[115]

The list in Art. 3 (1) (16) MiCA is far from complete; it does not cover, for instance, crypto-lending and crypto-staking.[116] Crypto-lending platforms provide loans from one user to another and functions as a form of peer-to-peer finance akin to crowdfunding. In one form of crytpo-lending, centralized service providers organize the lending—similarly to an arranging bank in a traditional loan transaction—and charge commission on each transaction to make a profit. In a different form of crypto-lending, the lending is organized by DeFi protocols running smart contracts whose functioning is administered by a DAO. As part of the DAO setup, holders of governance tokens tend to have a vote on certain matters such as base interest rates or margin requirements, while the developers embed other decisions within the software code that manages the lending.[117] Crypto-lending services reached their peak to date of USD 50 billion in outstanding loans in the fall of 2022, but now circulate at a lower level of approximately USD 10 billion.[118]

Crypto-staking refers to the locking-up of crypto-assets to support the operations of a blockchain network and receiving rewards for doing so. Staking is a key mechanism used by proof-of-stake (PoS) blockchains, as opposed to proof-of-work (PoW) networks that use mining to validate transactions. Staking as part of the PoS mechanism requires the original token of the designated blockchain to be staked with a so-called validator. Staking services have attracted wide interest across the crypto industry, with several staking services exceeding cumulative values of USD 1 billion. In the case of the Ethereum network, the cumulative value

113. *See* Regulation (EU) 2023/114, of the European Parliament and of the Council of 31 May 2023 On Markets in Crypto-assets, and Amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937, 2023 O.J (L150) Art. 3 (16)(b)(c)(d) (MiCA on operation of a trading platform for crypto-assets; exchange of crypto-assets for funds; exchange of crypto-assets for other crypto-assets).

114. *See MiCA supra* note 1, art. (3)(15) (MiCA on execution of orders for crypto-assets on behalf of clients; placing of crypto-assets).

115. *Id.*

116. *Cf.* Zetzsche, *supra* note 4, at 91–97. We have argued *supra*, Part II, that some of these services may qualify as AIF.

117. Zetzsche et al., EP Study, *supra* note 5, at 52–56.

118. *Id.*

exceeded USD 30 billion.[119] Both crypto-lending and crypto-staking remain unregulated by MiCA.

Further, Art. 4 (3) of MiCA exempts a number of token types from the white-paper duties laid down in Title II MiCA.[120] There is no analogous exemption with regard to crypto-asset services in relation to these token types; in all of these cases, Title V of MiCA applies.

For these services, any CASP needs an authorization subject to Title V, Chapter 1 of MiCA. On top of that, Title V, Chapter 2 of MiCA provides for general rules applicable to all CASPs, while Title V, Chapter 3 of MiCA stipulates rules for certain regulated activities. We discuss the most important operating requirements in turn below.

2. Tokens issued by Fully Decentralized Applications

For some crypto-assets, in particular Bitcoin, it is difficult to identify a single token issuer. Crypto-asset service providers in relation to Bitcoin are, however, covered by MiCA.[121]

3. Fully Decentralized Applications as CASPs?

The preceding discussion raises the question of whether Title V also applies if the applications providing the crypto-asset service is decentralized. For instance, does Title V MiCA apply to fully decentralized custody providers?

From the outset, the answer seems to be yes—as Title V is activity based. However, the definition of a CASP in Art. 3 (15) MiCA states that it means *a legal person or other undertaking* whose occupation or business is the provision of one or more crypto-asset services to clients on a professional basis.

Fully decentralized applications challenge the CASP definition on two grounds. First, a legal person or undertaking could be missing. Second, given that smart contracts perform services, a question might surface as to whether the service is provided on a professional basis. MiCA does not define "undertaking" but the general understanding as "a task or project, especially one that is important and/or difficult," similar to a venture,[122] would clearly cover decentralized crypto projects. Second, the term "on a professional basis" singles out mere hobby projects, yet in EU financial law the professional basis is satisfied if the service is provided on a permanent basis and the provider platform engages with clients by

119. *Id.* at 63 *et seq*.

120. These include crypto-assets offered for free; rewards for validation, utility tokens and tokens in limited networks of merchants.

121. Recital 22 clarifies that CASPs must comply with Title V of MiCA even though Titles II, III, and IV of MiCA do not apply. We welcome this clarification as, with regard to CASPs, it renders unnecessary the difficult decision as to what constitutes partially decentralized applications in contrast to fully decentralized applications. This means that for tokens issued by decentralized, partially decentralized, and fully decentralized applications, the CASP rules apply if a crypto-asset service is provided.

122. *Undertaking*, OED.COM, https://www.oed.com/dictionary/undertaking_n?tab=meaning_and_use [https://perma.cc/7GT3-KYV7] (last visited Apr. 4, 2024).

way of client-oriented communication.

B. General Requirements for All Crypto-asset Services

1. Authorization and Operating Requirements

CASPs are entities providing crypto-asset services defined in Art. 3 (1) (16) of MiCA. For CASPs that do not hold a relevant license under EU financial law, Arts. 59 and 61 *et seq*. of MiCA foresee a fully-fledged authorization requirement.[123] This authorization is of relevance for new service providers that want to serve Alternative Investment Fund Managers (AIFMs) as delegates with regard to order transmission and reception, as well as portfolio management and advice.

Fund managers, credit institutions, Markets in Financial Instrument Directive(MiFID) firms, and other licensed intermediaries can obtain the right to provide crypto-asset services by way of notification to their respective NCA.[124] These entities need to deliver the information specified in Art. 60 (9) of MiCA[125] 40 working days prior to the commencement of the service to its NCA. To avoid redundancies, CASPs holding a license under EU financial law do not need to submit any information that they have delivered as part of their previous licensing process if that information is identical, but they must state that this is the case in their notification (Art. 60 (9) MiCA).[126] The NCA then has twenty working days to require *in one step* additional information when the notification is incomplete, and set a new deadline not exceeding twenty working days which delays the expiration of the 40-working-day period. Further requests cannot extend the deadline.[127]

In terms of operating requirements, Title V, Chapter 2 of MiCA provides for general rules applicable to all CASPs, while Title V, Chapter 3 of MiCA stipulates rules for certain regulated activities including exchange services, brokerage, and custody.

Title V, Chapter 2 of MiCA stipulates the following *general* operating conditions applicable to all CASPs:

- Arts. 66 and 72 of MiCA establishing the CASP's fiduciary duties;
- Prudential requirements (Art. 67 of MiCA);

123. *See* Dirk Zetzsche, Julia Sinnig, & Areti Nikolakopoulou, *Crypto Custody*, 19 CAP. MARKETS L. J. 207, 216–17 (Jul. 2024) https://doi.org/10.1093/cmlj/kmae010 [https://perma.cc/3YU6-LQKP].

124. *Cf. MiCA*, *supra* note 1, art. 60(5) for UCITS and AIFMs with regard to order transmission and reception, portfolio management and advice.

125. Information to be submitted include, *inter alia*, a programme of operations setting out the types of crypto-asset services that the applicant crypto-asset service provider intends to provide, a description of their internal control mechanisms, and risk assessment frameworks.

126. Art. 60 (9) of MiCA as written is not very helpful in practice: the respective information will in most cases differ, at least in details, simply to address the new legislative framework provided under MiCA, if only in terms of terminology. Further, most submissions to date take place by way of e-documents, so submission of a few pages more or less does not matter. We thus recommend submitting the full documents describing, for instance, the organization, resources and expertise to the NCAs, but mark-up the new parts, instead of avoiding resubmission altogether.

127. *See MiCA*, *supra* note 1, art. 60(8).

- Provisions on governance and complaints handling (Arts. 68, 69, and 71 of MiCA);
- Safekeeping (Art. 70 of MiCA);
- Delegations and outsourcing (Art. 73 of MiCA); and
- A 'burial plan' (Art. 74 of MiCA).

Title V of MiCA mainly regulates the relationships between CASPs and clients as well as, in some cases, issuers of crypto-assets. In so doing it adopts a regulatory perspective similar to that employed in the regulation of investment firms. We discuss three important general rules in the next sub-parts, and then turn to safekeeping and custody.

2. Fiduciary Duties (Arts. 66 and 72 of MiCA)

Equivalent to similar provisions in EU financial law,[128] Art. 66 (1) of MiCA establishes that CASPs are fiduciaries. In particular, Article 66 (1) states that CASPs "shall act honestly, fairly and professionally in accordance with the best interests of their clients and prospective clients." This provision underpins a number of requirements on fairness, transparency, and management of conflicts of interest—reflecting the principle that the clients' interests shall be paramount, unless they have been explicitly informed otherwise and the clients have provided their explicit consent to being treated in an inferior fashion.

The fiduciary duties also have a harmonizing effect that aligns the role of CASPs with other off-balance-sheet intermediaries in the field of finance. It clarifies beyond doubt that CASPs must not use clients' assets on their own accounts and establishes limits to crypto business models resulting in value transfers from clients to the CASPs. These matters were at the heart of various scandals during the Crypto Winter of 2022–23,[129] and their clarification greatly adds to the protection of crypto-asset investors, including investment funds.

3. Outsourcing (Art. 73 of MiCA)

Art. 73 of MiCA on outsourcing is modelled on Art. 16(5) of MiFID and Art. 20 of AIFMD. Furthermore, we expect implementing legislation similar to the model provisions[130] in order to ensure the effectiveness of the authorization requirements and financial supervision even where the authorized CASPs rely on other, potentially not authorized service providers.

Pursuant to Art. 73 (1) MiCA CASPs "that outsource services or activities to third parties . . . shall take all reasonable steps to avoid additional operational risk [and] remain fully responsible for discharging all of their obligations."

128. *E.g.,* art. 24 MiFID; Art. 12 (1) AIFMD.

129. Douglas W. Arner et al., *The Financialisation of Crypto: Designing an International Regulatory Consensus*, 53 COMPUT. L. & SEC. REV. 1–2 (2024).

130. *E.g.,* Art. 30 bis 32 of Commission Delegated Regulation (EU) 2017/565 of 25 April 2016 Supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organizational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive.

CASPs engaged in outsourcing must ensure that the outsourcing does not result in the delegation of its responsibility, (2) alter the relationship between the CASPs and their clients, nor the obligations of the CASPs towards their clients; and (3) does not alter the conditions for the authorization of the CASPs. Again, events during the Crypto Winter account for such rules; many CASPs were inexperienced in financial services and incapable of handling the operational risks of their DeFi applications and the entities relating to them.[131]

One of the main questions in the crypto context is whether software developers and their firms are third-party outsourcing providers. These firms are now subject to Art. 73 MiCA if the CASP outsources "services or activities to third parties for the performance of operational functions." Given the fact that many developer firms control DeFi applications,[132] if the application can be understood to "perform operational functions" on behalf of the CASP (for instance, brokerage or custody support), then the developers may act as delegates of the CASP and are in turn indirectly subject to regulation, to the benefit of investors.[133] A further question here is whether the joint action of holders of crypto-assets is a "service or activity for the performance of operational functions" of the CASP.

4. Burial Plan (Art. 74 MiCA)

Art. 74 of MiCA, which requires a burial plan of sorts, exclusively applies to CASPs subject to Arts. 75 to 79 MiCA, including crypto custodians. Art. 74 of MiCA requires a "plan that is appropriate to support an orderly wind-down of their activities under applicable national law, including the continuity or recovery of any critical activities performed by those service providers. That plan shall demonstrate the ability of crypto-asset service providers to carry out an orderly wind-down without causing undue economic harm to their clients." The plan needs to align with national insolvency law, which is, so far, not harmonized in the field of crypto-assets.[134]

5. EU Passport

CASPs are allowed to provide crypto-asset services throughout the Union—either through the right of establishment, including through a branch, or through the freedom to provide services. CASPs that provide crypto-asset services on a cross-border basis shall not be required to have a physical presence in the territory of a host Member State.

131. Arner, *supra* note 129, at 3–10.

132. Anker-Sørensen & Zetzsche, *supra* note 112.

133. This broad understanding is in line with an envisaged expansion of the outsourcing rules under AIFMD II. *Cf.* on AIFMD II; *see* Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives 2011/61/EU and 2009/65/EC as regards delegation arrangements, liquidity risk management, supervisory reporting, provision of depositary and custody services and loan origination by alternative investment funds, COM/2021/721 final.

134. *See generally* Woxholth et al., *Competing Claims to Crypto-assets*, 28:2 UNIF. L. REV. 226 (2023).

C. Safekeeping and Custody

Art. 3 (1) (16) of MiCA defines "providing custody and administration of crypto-assets on behalf of clients" as the safekeeping or controlling, on behalf of clients, of crypto-assets or of the means of access to such crypto-assets, where applicable in the form of private cryptographic keys. Art. 75 of MiCA then provides for specific rules on crypto custody. However, an integral part of custody, namely the safekeeping, forms the heading of Art. 70 MiCA, and is allocated within the general rules applicable to all CASPs. Not all CASPs necessarily provide safekeeping in relation to crypto-assets, but can do so in relation to "funds," taking the form of cash equivalents, to facilitate payments. If custody *with regard to crypto-assets* is provided, Arts. 70 (1) and 75 of MiCA apply in conjunction. MiCA regulates crypto custody then as a qualified form of safekeeping under Art. 70 (1) of MiCA, similar to Art. 21 (8) of AIFMD which regulates custody as a qualified type of safekeeping for financial instruments. We discuss the consequences of this in turn below.

1. Safekeeping (Art. 70 (1) of MiCA)

Safekeeping under Art. 70 (1) of MiCA extends to the holding of crypto-assets on behalf of clients, and the far more practical case of the holding and administration of the means of access to these crypto-assets by the private key on behalf of others. In MiCA's scope, this includes crypto custodians acting on behalf of clients—as an individual or collectively by way of an investment fund—but potentially also crypto portfolio managers that hold clients' assets as a side service.

Analogous to Art. 16 (8) and (9) of MiFID, these CASPs "shall make adequate arrangements to safeguard the ownership rights of clients, especially in the event of the [CASP's] insolvency, and to prevent the use of clients' crypto-assets for their own account."[135] The first requirement depends on what is necessary to protect the holders of crypto-assets under the insolvency laws applicable in the event of the DeFi application's insolvency or going out of business.[136] Given the widespread legal uncertainties regarding ownership, property, and proprietary rights in digital assets,[137] it will be interesting to see how CASPs meet this requirement. The second requirement responds to widespread abuses where crypto intermediaries, such as the FTX Exchange, were treating clients' assets as their own to engage in troubling conduct such as covering up losses from risky crypto investments in other parts of their crypto empires.[138]

The reuse of clients' assets is also widespread in crypto-lending arrangements

135. *See* MiCA, *supra* note 1, art. 70(1).

136. Under most insolvency laws, only persons and entities can become insolvent, and it is uncertain whether DeFi applications qualify as one of the former.

137. *Cf.* Woxholth et al., *supra* note 134 at 8. For an argument that streamlining of crypto insolvency laws is a priority, *cf.* Zetzsche et al., *supra* note 5, at 118.

138. *See* Arner, *supra* note 129, at 3–10.

where clients' assets are pooled rather than being transferred to the CASP and are subsequently transferred from the pool to third-party creditors.[139] Since Art. 3 (16) of MiCA, in defining crypto-asset services, does not mention crypto-lending, Art. 70 (1) of MiCA does not apply. Where crypto-lending platforms qualify as AIFs,[140] Art. 23 (1) (a) of AIFMD applies, requiring that the reuse of assets is disclosed to the investors in considerable detail prior to the initial investment. Art. 22 (7) of UCITSD also limits the reuse of the pooled assets. Under both Directives, the Depositary is mandated to enforce the conditions of reuse disclosed to investors.[141]

2. Custody Services Under Art. 75 MiCA

Art. 75 of MiCA on custody services by CASPs is equivalent to Art. 21 of AIFMD and Chapter IV of the UCITSD on depositary services.[142] CASPs must reside within the European single market,[143] and enter into an agreement with clients with meticulous contractual details.[144]

The most important stipulations relate to the parties' identities—which may be difficult to ascertain in the case of fully decentralized systems—the custody policy, the description of the CASP's security systems, the fees, costs, and charges to be paid by the client, and the applicable law.[145] The custody policy must contain procedures aimed at ensuring the safekeeping or control of the means of access to the crypto-assets.[146] This rule responds to the frequent incidents of custodians misappropriating private keys.[147] Furthermore, the clients' rights to crypto-assets as well as any movement, modification, or creation of positions should be registered in the name of each client,[148] while the client is entitled to receive information on the register entries.[149] This rule enables the transparent exercise of clients' rights.

139. *Cf.* Zetzsche et al., *supra* note 5, at 47.

140. *Supra* Part II.3.

141. *Cf.* AUTORITÉ DES MARCHÉS FINANCIERS, THE REUSE OF ASSETS: REGULATORY AND ECONOMIC ISSUES 18 (2016).

142. The MiFD frameworks on the safeguarding of client funds is scattered around a number of provisions, including Art. 16(8), (9) and (10) of MiFD as well as Art. 49 and Annex I of Com. Del. Reg. 2017/565.

143. *Cf. MiCA, supra* note 1, art. 59(2). Where already licensed financial intermediaries provide crypto-asset services pursuant to Art. 60 MiCA, the authorization requirements of the CRD, MiFID, UCITSD, AIFMD and other pieces of legislation also require that the registered seat and headquarter is located within the EEA.

144. *MiCA, supra* note 1, art. 75(1). Unlike Art. 21(2) AIFMD, Art. 75(1) of MiCA does not require this agreement to be written.

145. *Id.* art. 75(1)(a)–(g).

146. *Id.* art. 75(3).

147. *See* Zetzsche et al., *supra* note 5, at 33 *et seq* (providing overview of incidents).

148. *MiCA, supra* note 1, art. 75(2), (4). An equivalent monitoring of an AIF's cashflows and assets held in custody, with the objective of ensuring investor protection, is foreseen by Art. 21 (7) and (8) AIFMD.

149. *MiCA, supra* note 1, art. 75(5).

Moreover, CASPs are obliged to provide procedures necessary for the return of crypto-assets to clients[150] as well as operational segregation of the client's assets from the CASP's assets on the distributed ledger.[151] These provisions should ensure that in the event of the CASP's insolvency, the client's assets remain unimpaired.

Notably, Art. 75 (4) of MiCA establishes a private law provision mandating substitution: changes to the DLT and other events possibly impacting clients' rights shall lead to the right of clients "to any crypto-assets or any rights newly created on the basis and to the extent of the client's positions at the time of the occurrence of that change or event."[152] While this provision is meant to protect the custodian's clients, it subjects CASPs to liability risk for events taking place on the DLT which the CASPs may or may not be able to influence. It is important to note that a CASP may have no governance right in relation to the token's creation or modification by way of DLT.[153] If the DLT does not allocate the right, or a part thereof, to the respective token, it may never come into the custodian's reach.[154]

This shifts the focus of attention onto the custodian's liabilities. Liability of CASPs for the loss of crypto-assets or their respective means of access shall be limited to situations attributable to, and under the control of, the CASPs[155] and capped at the market value of the lost crypto-asset at the time of the loss.[156] Nevertheless, compared to the current contractual practice of crypto custodians,[157] the statutory liability of crypto custodians under EU law may function as a game-changer in an environment characterized by a lack of accountability and resilience when it truly matters.

3. Filling the Gaps of MiCA

As noted before, MiCA does not apply to crypto-lending and crypto-staking. Both are treated in some way in the context of cryptocurrencies, as set out in Part IV 1.a. For instance, lending platforms connect users through a form of peer-to-peer financing; whereas staking platforms provide rewards for locking crypto-assets in to the protocol, as a sort of collateral for the operation of PoS blockchains. The catalogue in Art. 3 (16) of MiCA does not cover crypto-lending and crypto-staking explicitly, however.

150. *Id.* art. 75(6).

151. *Id.* art. 75(7). An equivalent asset segregation and registration of an AIF's assets is foreseen by Art. 21 (8) (a) (ii) AIFMD.

152. *MiCA, supra* note 1, art. 75(4).

153. *See id.*

154. *See id.*

155. *Id.* art. 75(8). The equivalent provision under AIFMD is Art. 21(12) AIFMD.

156. *Id.*

157. *Cf.* Dirk Zetzsche & Areti Nikolapolou, *Crypto Custody in Insolvency—An Empirical View*, *in* CHRISTIAN KOLLER & MATTHIAS LEHMANN, DIGITAL ASSETS IN ENFORCEMENT AND INSOLVENCY: SECURING CREDITOR ACCESS AND PROTECTING CUSTOMER INTERESTS IN THE CRYPTO WORLD (forthcoming Feb. 2025).

Despite the fact that MiCA was designed as a gap-filling tool, existing EU financial law can remedy MiCA's shortcomings. MiCA exempts financial instruments in Art. 2 (4), but neglects to mention "collective portfolio management" which refers to the regulated activities of investment fund managers. Collective portfolio management under AIFMD can go beyond financial instruments and include, for instance, real estate and cryptocurrencies under MiCA. Omitting "collective portfolio management" in Art. 2 (4) of MICA now shows as strength with regard to pooled financial services. As we have argued elsewhere,[158] some DeFi schemes that pool the assets of multiple users with a view to transferring them to another user indeed qualify as AIFs pursuant to Art. 4 (1) (a) AIFMD. Where they do, the DeFi scheme must be operated by a regulated AIFM. Ironically, MiCA, designed to fill gaps in general EU financial law, needs general EU financial law to cure its own deficiencies.

V

CONCLUSION

The unique feature of EU cryptocurrency law is that it neither follows the traditional approach to governing securities, commodities, payments or credit institutions, but instead boasts the first, to our knowledge, bespoke set of rules for the two main types of privately issued assets: EMTs—in particular, traditional stablecoins—and ARTs such as the global stablecoin project Libra/Diem. This bespoke framework combines facets of various types of financial regulation. The product rules for ARTs and EMTs combine features of payment service and investment fund regulation. In turn, the rules on CASPs provide for licensing and fiduciary duties, thus setting the stage for an understanding and operation of CASPs as fiduciaries of the token-holders.

Like all regulation in times of speedy innovation, MiCA faced the risk of becoming outdated before its implementation—as these concepts are untested, solidifying, and innovation in this space is highly responsive to perceptions of forthcoming regulation. To some extent, this risk has materialized as crypto-lending and crypto-staking fall outside of MiCA's activity-based scope. We welcome that more traditional concepts of EU financial law—*sub specie* investment fund regulation—better tested by the winds of time and innovation, stand ready to fill some of MiCA's gaps.

The difficulties regarding MiCA's scope serve as an example of the more general issue of how to regulate innovation. Regulators could best address this issue by using broad default rules in the form of applying more traditional concepts from elsewhere in EU financial law such as "securities" or "transferable securities," subject to regulatory waivers. While these rules may harm innovation, regulators can always waive the requirements upon application, albeit they will find themselves unfit to widen *ex post* from this initially narrow scope.

158. *See* Julia Sinnig & Dirk A. Zetzsche, *Traditional and Digital Limits of Collective Investment Schemes*, 21 EUROPEAN COMPANY AND FINANCIAL LAW REVIEW 157, 181–88 (2024) https://doi.org/10.1515/ecfr-2024-0007 [https://perma.cc/U3G8-MV9A].