



30 April 2023

Future regulatory regime for cryptoassets – consultation
Payments and Fintech
HM Treasury
1 Horse Guards Road
London SW1A 2HQ

Submitted via email to cryptoasset.consultation@hmtreasury.gov.uk

Subject: **Response to HM Treasury Consultation on Future Financial Services Regulatory Regime for Cryptoassets**

To whom it may concern,

The Cardano Foundation appreciates the UK Government's engagement with the digital asset and distributed ledger technology community, and welcomes the opportunity to provide inputs to the Consultation on Future Financial Services Regulatory Regime for Cryptoassets.

The Cardano Foundation is an independent, Swiss-based not-for-profit organisation, tasked with advancing the public, permissionless blockchain called Cardano. Our mission is to anchor the Cardano blockchain as a utility for financial and social systems, thus empowering the digital architects of the future. We aim to explain and address decentralisation risks for various stakeholders, while giving the Cardano community the tools and support necessary to leverage the Cardano infrastructure to solve problems in new ways.

Kindly find our responses to the respective questions below. We gladly address any follow-up questions or contribute to further discussions with the UK Government and any of its associated institutions.

Yours sincerely,

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Preliminary note

The Cardano Foundation views an adequate, risk-based legal and regulatory framework as beneficial to realising the potential of digital assets and blockchain technology. Appropriate rules, built on sensible and suitable principles, help foster innovation while reducing potential risks and unwanted social costs.

Overall, we appreciate the prudent and well-informed approach of the UK Government's Treasury (hereinafter "HMT") reflected in the proposed framework (hereinafter "the Consultation Document")¹.

Answers to the Questions

- The below responses follow the structure of the HM Treasury's questions as per the Consultation Document.
- To avoid repetition, cross-references between responses are provided.
- Certain answers are omitted and indicated accordingly.

Questions to Chapter 2: (Definition of cryptoassets and legislative approach)

1. *Do you agree with HM Treasury's proposal to expand the list of "specified investments" to include cryptoassets? If not, then please specify why.*

Generally, we welcome HMT's approach on the taxonomy and the material scope as outlined in the Consultation Document. We particularly appreciate the designated focus on cryptoassets in the context of financial service activities and the intention to avoid overreaching regulation for non-financial activities and the underlying infrastructure technology and contributors. Furthermore, we appreciate the approach of leveraging the existing framework, only amending where required to account for cryptoassets' unique features and risks, and according to the principle of "same risk, same regulatory outcome".

However, the proposed definition of cryptoassets seems too broad. It introduces the risk of subjecting technologies to the FSMA, which should not fall within the scope of financial market regulations and for which this regime was generally not intended. This, in turn,

¹ As published under <<https://www.gov.uk/government/consultations/future-financial-services-regulatory-regime-for-cryptoassets>>, lastly visited on 1 April 2023.

could have unintended consequences and negatively impact innovation in other areas of technology. It also seems to contradict the stated intention of avoiding impact on non-financial activities, as these could be subject to unsuited requirements.

Even though the asset itself is not to be regulated, its definition provides the crucial delimitation in terms of the de facto scope of the regulatory provisions. Against this background, we would also caution against allowing changes to such a fundamental definition by way of secondary legislation. While we understand the need for a flexible and neutral approach, the currently proposed definition does not provide sufficient certainty and should be narrowed in order to add clarity for market participants.

We propose to adopt a definition which includes additional functional elements and takes into account the (conceptual) key properties of cryptoassets.² Such could be achieved by amending/adjusting paragraph (b) of the proposed definition with a reference to characteristics such as distributed, consensus driven, and immutable.

2. *Do you agree with HM Treasury's proposal to leave cryptoassets outside of the definition of a "financial instrument"? If not, then please specify why.*

We fully agree with this approach.

3. *Do you see any potential challenges or issues with HM Treasury's intention to use the DAR to legislate for certain cryptoasset activities?*

No comments at this time.

Questions to Chapter 3: Overview of the current regulatory landscape for cryptoassets

4. *How can the administrative burdens of FSMA authorisation be mitigated for firms which are already MLR-registered and seeking to undertake regulated activities? Where is further clarity required, and what support should be available from UK authorities?*

We deem it important to provide clear guidance to market participants as to which information and documentation is required to obtain available authorisations. Such

² Cryptoassets, in essence, are digitally represented excludable and rival assets (i.e. "virtual private goods").

guidance should take into account already provided information (as required by the MLR-registration) in order to reduce duplications and decrease the administrative burden for both the market participants as well as the FCA.

We furthermore encourage to set a realistic and proportionate transition period, allowing the preparation of quality documentation, and give both the market participants as well as the FCA enough leeway to clarify potential questions.

5. *Is the delineation and interaction between the regime for fiat-backed stablecoins (phase 1) and the broader cryptoassets regime (phase 2) clear? If not, then please explain why.*

No comments at this time.

6. *Does the phased approach that the UK is proposing create any potential challenges for market participants? If so, then please explain why.*

No comments at this time.

Questions to Chapter 4 Cryptoasset Activities

7. *Do you agree with the proposed territorial scope of the regime? If not, then please explain why and what alternative you would suggest.*

We agree with the proposed territorial scope. We welcome HMT leveraging proven regulatory principles while recognising the necessity for nuance. This will contribute to regulatory clarity and enhance market participant's compliance with the regulatory regime.

As the application of established regulatory approaches might still raise questions for market participants that fall within the scope of the regime for the first time, the relevant authorities should consider providing specific guidelines which outline the interpretation of the various concepts in the context of cryptoassets.

8. *Do you agree with the list of economic activities the government is proposing to bring within the regulatory perimeter?*

We agree with the list of economic activities as proposed.

9. *Do you agree with the prioritisation of cryptoasset activities for regulation in phase 2 and future phases?*

We generally agree with the phased approach.

10. *Do you agree with the assessment of the challenges and risks associated with vertically integrated business models? Should any additional challenges be considered?*

We generally agree with the assessment of the challenges and risks associated with vertically integrated business models.

11. *Are there any commodity-linked tokens which you consider would not be in scope of existing regulatory frameworks?*

No comments at this time.

12. *Do you agree that so-called algorithmic stablecoins and crypto-backed tokens should be regulated in the same way as unbacked cryptoassets?*

We believe that this cannot be answered generally and would argue that it is ultimately down to the specifics of how the respective token is designed and functions. Depending on those specifics, some of the tokens might be considered to be in the scope of existing regulatory frameworks (as also pointed out in the Consultation Document). To preserve the openness to future innovation, the regime should remain open to regulating such tokens differently than unbacked cryptoassets, subject to adequate proof by project backers.

13. *Is the proposed treatment of NFTs and utility tokens clear? If not please explain where further guidance would be helpful.*

The treatment of NFTs and utility tokens does not seem entirely clear to us and should be further elaborated. On one hand, we understand that NFTs and utility tokens are not supposed to fall within the scope of the proposed regime (cf. p.14 of the Consultation Document and the FCA Guidance on Cryptoassets of July 2019). However, according to

section 4.26 et seqq. of the Consultation Document, such tokens would be included in the future regulatory perimeter if respective activities are conducted.

It seems clear that a case-by-case and “substance over form” approach needs to be followed and that NFTs and utility tokens have risks associated with them, as assumed in the Consultation Document. However, we have the following concerns with the proposed treatment, specifically regarding NFTs:

- Utility tokens and NFTs can have very different characteristics and economic structures. They should therefore not *a priori* be subject to the same rules. As recognised by the Consultation Document, NFTs can and sometimes do represent rights or other assets which often reside outside the perimeter of financial services.
- As the list of activities is potentially very comprehensive, NFTs might be subjected to a future regime that does not adequately address their risk profile, leading to overreaching or unsuitable regulation. This is further emphasised by the proposed broad definition for cryptoassets (see our answer to question 1 above).
- The suggested regime could create an unlevel playing field where certain rights or assets (or respective activities) are treated differently due to the mere fact that they are represented via a token.

We believe that it would be important to further elaborate the intent and clarify the activities (or defining relevant exemption) and to more clearly delimit the definition of cryptoassets to avoid undue outcomes.

Questions to Chapter 5: Regulatory Outcomes for Cryptoasset Issuance and Disclosures

14. *Do you agree with the proposed regulatory trigger points – admission (or seeking admission) of a cryptoasset to a UK cryptoasset trading venue or making a public offer of cryptoassets?*

We generally agree with the proposed regulatory trigger points.

15. *Do you agree with the proposal for trading venues to be responsible for defining the detailed content requirements for admission and disclosure documents, as well as*

performing due diligence on the entity admitting the cryptoasset? If not, then what alternative would you suggest?

We generally agree with the proposed approach. However, in order to ensure a level playing field among all market participants, minimal standards should be introduced. Such minimal standards could be developed by self-regulatory efforts within the industry or by the FCA in cooperation with the industry.

16. Do you agree with the options HM Treasury is considering for liability of admission disclosure documents?

We generally agree with the proposed approach. However, for cryptoassets without an identifiable issuer (e.g. Bitcoin), this liability being fully allocated to the trading venue does not seem proportionate and would likely be prohibitive, potentially resulting in a lack of market liquidity and trading venues. This in turn would force users to switch to less regulated trading venues outside the UK to trade such cryptoassets, ultimately reducing investor protection. Furthermore, it could result in market confusion, as the disclosed material might differ from one trading venue to another.

It should be assessed whether there are other alternatives with less liability risk for trading venues while maintaining an appropriate level of investor protection. Such might be achieved e.g. by incentivising the creation of an industry body that ensures objective and consistent information or by allowing users to waive certain disclosure requirements if they are able to prove sufficient subject matter knowledge.

17. Do you agree with the proposed necessary information test for cryptoasset admission disclosure documents?

We generally agree with the proposed approach.

18. Do you consider that the intended reform of the prospectus regime in the Public Offers and Admission to Trading Regime would be sufficient and capable of accommodating public offers of cryptoassets?

No comments at this time.

Questions to Chapter 6 Regulatory Outcomes for Operating a Cryptoasset Trading Venue

19. *Do you agree with the proposal to use existing RAO activities covering the operation of trading venues (including the operation of an MTF) as a basis for the cryptoasset trading venue regime?*

We understand the existing regulation to provide an appropriate basis for a cryptoassets trading venue regime. We welcome HMT leveraging an existing regime while recognising the necessity for relevant nuance.

20. *Do you have views on the key elements of the proposed cryptoassets trading regime including prudential, conduct, operational resilience and reporting requirements?*

No comments at this time.

Questions to Chapter 7 Regulatory Outcomes for Cryptoasset Intermediation Activities

21. *Do you agree with HM Treasury's proposed approach to use the MiFID derived rules applying to existing regulated activities as the basis of a regime for cryptoasset intermediation activities?*

We generally agree with the proposed approach and welcome HMT leveraging a well-established regime. We would, however, still want to highlight the need to consider the sometimes unique features and risks of cryptoassets. It seems crucial to avoid imposing such rules on cryptoassets without fully assessing their suitability and proportionality.

22. *Do you have views on the key elements of the proposed cryptoassets market intermediation regime, including prudential, conduct, operational resilience and reporting requirements?*

No further comments at this time.

Questions to Chapter 8 Regulatory outcomes for cryptoasset custody

23. *Do you agree with HM Treasury's proposal to apply and adapt existing frameworks for traditional finance custodians under Article 40 of the RAO for cryptoasset custody activities?*

We generally agree with the proposed approach and welcome HMT leveraging a well-established regime. We would, however, still want to highlight the need to consider the sometimes unique features and risks of cryptoassets. It seems crucial to avoid imposing such rules on cryptoassets without fully assessing their suitability and proportionality.

While some basic principles from the existing regulation might provide an appropriate framework for certain aspects of cryptoasset custody activities, there are in particular operational and IT-security requirements which are different from traditional custody activities. We appreciate HMT reflecting such specificities in the Consultation Document.

24. *Do you have views on the key elements of the proposed cryptoassets custody regime, including prudential, conduct and operational resilience requirements?*

No further comments at this time.

Questions to Chapter 9 General Market Abuse Requirements

25. *Do you agree with the assessment of the challenges of applying a market abuse regime to cryptoassets? Should any additional challenges be considered?*

We fully agree with this assessment and the challenges stated.

As specified in the Consultation Document, there is a high retail participation in cryptoassets. Irrespective of the other measures, we believe that education and access to information should also play a key role in combating market abuse. This could be fostered by governmental resources or non-profit "consumer" protection organisations providing access to neutral and non-technical information.

26. *Do you agree that the scope of the market abuse regime should be cryptoassets that are requested to be admitted to trading on a cryptoasset trading venue (regardless of where the trading activity takes place)?*

We fully agree with the proposed scope.

27. *Do you agree that the prohibitions against market abuse should be broadly similar to those in MAR? Are there any abusive practices unique to cryptoassets that would not be captured by the offences in MAR?*

No comments at this time.

28. *Does the proposed approach place an appropriate and proportionate level of responsibility on trading venues in addressing abusive behaviour?*

No comments at this time.

29. *What steps can be taken to encourage the development of RegTech to prevent, detect and disrupt market abuse?*

According to our experiences, one of the key challenges is the availability of quality and reliable data. It is, however, the trusted access to and aggregation of such data, rather than the existence as such, that poses a challenge. A certain expectation gap seems to exist between regulators, trusted verifiers such as auditors, and the technical community. Current data feeds and explorers for information on blockchains often have a focus on technical information, offering little to no context. This makes it hard for non-technical users to understand and ultimately trust the data.

We therefore see great potential in fostering access to reliable and well presented blockchain data. The role of a regulator in this regard should be to enable and engage with the industry, with the goal to support the creation of standards, discuss expectations, and encourage a coordinated approach where indicated. Regulators could also support the building of such solutions by making the quality of data tooling a factor in regulatory assessments for cryptoasset use by institutions.

30. *Do you agree with the proposal to require all regulated firms undertaking cryptoasset activities to have obligations to manage inside information?*

We generally agree with the proposal, but would like to highlight the need for proportionate requirements depending on the activities conducted.

Questions to Chapter 10 Regulatory outcomes for operating a cryptoasset lending platform

31. *Do you agree with the assessment of the regulatory challenges posed by cryptoasset lending and borrowing activities? Are there any additional challenges HM Treasury should consider?*

We fully agree with this assessment.

32. *What types of regulatory safeguards would have been most effective in preventing the collapse of Celsius and other cryptoasset lending platforms earlier this year?*

No comments at this time.

33. *Do you agree with the idea of drawing on requirements from different traditional lending regimes for regulating cryptoasset lending? If so, then which regimes do you think would be most appropriate and, if not, then which alternative approach would you prefer to see?*

As deposit-taking and lending usually constitutes a banking activity, there might be various principles to be derived from banking regulation. We do not believe that cryptoasset lending should be subject to a regime as comprehensive as the one for banks in all cases. However, there is undoubtedly risk overlap. In particular, capital, liquidity, and credit risks are inherent in such activities and should be addressed with suitable means. Furthermore, there are risks stemming from interconnectedness (e.g. exchange and lending in one organisation), concentration in specific assets, and potentially leveraged positions (through rehypothecation or similar mechanisms) that could become systemic (at least within cryptoassets as an asset class). The experience from banking regulation could be used to provide tools to address such risks. However, it seems important to recognise the necessity for appropriate nuance and a proportionate application.

34. *Do you agree with the option we are considering for providing more transparency on risk present in collateralised lending transactions?*

We agree with the necessity and see the proposed options as a good starting point. However, we encourage HMT to further consider the opportunities this technology provides. Solutions to collect and analyse data in near real-time could greatly contribute to an easier and more timely risk monitoring. Similarly, they could also increase transparency for both the user as well as for the regulator. Furthermore, embedded supervision and similar tools might help to make regulators much more efficient and effective.

35. *Should regulatory treatment differentiate between lending (where title of the asset is transferred) vs staking or supplying liquidity (where title of the asset is not transferred)?*

We see the urgent need for a differentiated treatment of those activities, as they have different associated risks. The risks also depend materially on how these functions are specifically implemented (e.g. not all staking is created equal).

Questions to Chapter 11 Call for Evidence: Decentralised Finance (DeFi)

Questions 36-42 have been omitted.

However, we would like to make the following general comment which we deem relevant for assessing the potential regulation of DeFi:

It is important to differentiate between developers providing free open-source software versus service providers using and operating such software for their own purposes (and usually profit). While these roles may coincide, it is critical for continued advancements in software development and IT technology to avoid allocating (regulatory) responsibility to an overly extensive group. That said, it should be noted that open-source-software developers are already subject to existing laws and liability provisions. We consider an educational approach as much more fit for purpose than a specific, potentially restrictive regulatory regime for developers.

Furthermore, it is crucial to distinguish between two types of smart contracts: open-source ones that are used for inspiration, innovation, and reference; and the ones actually

deployed on a blockchain. Open-source smart contracts are developed and hosted by developers and are free for anyone to use, as governed by the respective open-source licence. On the other hand, service providers use and operate smart contracts for their own purposes and profits. Ultimately, the differences come down to the level of control one has over the smart contract once deployed on a public, permissionless blockchain.

While more control allows for changes to the code of a smart contract (e.g. for functional updates or bug fixes), it also usually implies some form of centralised undertaking which regulatory responsibility may be attributed to. A smart contract, however, may also happen to be deployed without it retaining any means of control. Such instances allow for greater transparency and decentralisation, but they also require users to trust the code's integrity, as it cannot be modified once deployed. A suitable regulatory approach should carefully consider all of these differences in order to avoid overreaching or inadequate regulation.

Questions to Chapter 12 Call for Evidence: Other Cryptoasset Activities

43. *Is there a case for or against making cryptoasset investment advice and cryptoasset portfolio management regulated activities? Please explain why.*

We believe there should be more accountability for people making recommendations and predictions on social media or streaming platforms, which could qualify as cryptoassets investment advice.

44. *Is there merit in regulating mining and validation activities in the UK? What would be the main regulatory outcomes beyond sustainability objectives?*

No comments at this time.

45. *Should staking (excluding “layer 1 staking”) be considered alongside cryptoasset lending as an activity to be regulated in phase 2?*

We strongly believe that staking should not be considered within the same framework as cryptoasset lending. Staking, or other methods to ensure consensus on a blockchain, are not a financial activity and should not be regulated under a financial regulation, if at all. They enable consensus as an essential building block of blockchain systems, which

ensures the integrity and security of the data and incentivises participation and resource allocation within such public digital infrastructures. The risks associated with lending and staking are also generally very different (although we acknowledge that this depends on the individual implementations). However, as the current wording excludes layer 1 staking, HMT's intentions in the context of this question are not fully apparent to us.

46. *What do you think the most appropriate regulatory hooks for layer 1 staking activity would be (e.g. the staking pools or the validators themselves)?*

See answer to question 45 above.

Questions to Chapter 13 Call for evidence: Sustainability

47. *When making investment decisions in cryptoassets, what information regarding environmental impact and / or energy intensity would investors find most useful for their decisions?*

Investors with environmental, social, and governance (ESG) goals may be interested in environmental metrics such as:

- total electricity consumption [kWh/year],
- electricity per node [kWh/year],
- electricity per transaction [Wh/Tx],
- total carbon emissions [tCO₂e/year].

Despite general scientific consensus that Proof-of-Stake (PoS) protocols have a significantly less energy consumption and environmental impact than Proof-of-Work (PoW) protocols, such as Bitcoin and the former Ethereum PoW, the comparability between different PoS protocols remains open to debate. In fact, the different layer 1 architectures, consensus protocols, accounting models (account-based vs. eUTXO) etc, complicate direct comparisons.

48. *What reliable indicators are useful and / or available to estimate the environmental impact of cryptoassets or the consensus mechanism which they rely on (e.g. energy usage and / or associated emission metrics, or other disclosures)?*

The following indicators are typically used to estimate the environmental impact of blockchains:

- nodes [# total],
- transactions [Tx/year],
- total electricity consumption [kWh/year],
- electricity per node [kWh/year],
- electricity per transaction [Wh/Tx],
- total carbon emissions [tCO₂e/year].

However, it is important to note that the definition of a transaction differs significantly between account-based (e.g. Ethereum, Polygon) and eUTXO-based (e.g. Cardano) programmable PoS protocols.

49. *What methodologies could be used to calculate these indicators (on a unit-by-unit or holdings basis)? Are any reliable proxies available?*

A number of different organisations including the Cambridge Centre for Alternative Finance, the Crypto Carbon Ratings Institute (CCRI), as well as others, have developed various methodologies to estimate the energy consumption of the networks.

CCRI and Offsetra employ methodologies that quantify the CO₂ emissions of specific addresses, currently limited to Bitcoin and Ethereum.

The World Economic Forum, together with the Crypto Impact and Sustainability Alliance, recently published an insight report titled “Guidelines for Improving Blockchain’s Environmental, Social and Economic Impact”.³

³ <<https://www.weforum.org/reports/guidelines-for-improving-blockchain-s-environmental-social-and-economic-impact/>>, lastly visited on 28 April 2023.

50. *How interoperable would such indicators be with other recognised sustainability disclosure standards?*

No comments at this time.

51. *At what point in the investor journey and in what form, would environmental impact and / or energy intensity disclosures be most useful for investors?*

No comments at this time.

52. *Will the proposals for a financial services regulatory regime for cryptoassets have a differential impact on those groups with a protected characteristic under the Equality Act 2010?*

No comments at this time.