



February 15, 2019

Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW
Washington, DC 20581

Dear Commodity Futures Trading Commission,

R3 appreciates the opportunity to respond to the “*Commodity Futures Trading Commission – Request for Input (“CFTC - RFI”) on Crypto-Asset Mechanics and Markets*” issued on the Federal Register in December 2018. Regulators globally continue to grapple with the appropriate classification and resulting treatment of digital assets. It is critical that as part of that exploration, regulators examine the underlying technology and the relationship between the technology and the asset. We applaud the CFTC for issuing this RFI and hope our responses herein will be useful in your analysis. We remain available to discuss the contents of this letter and any related topics.

Introduction to R3

R3 is an enterprise blockchain software firm working with a broad ecosystem of more than 300 members and partners across multiple industries from both the private and public sectors to develop on Corda, its open-source blockchain platform, and Corda Enterprise, a commercial version of Corda for enterprise usage. R3’s global team of over 180 professionals in 14 countries is supported by over 2,000 technology, financial, and legal experts drawn from its global member base.

The Corda platform is already being used in industries from financial services to healthcare, shipping, insurance and more. It records, manages and executes institutions’ financial agreements in perfect synchrony with their peers, creating a world of frictionless commerce.

R3’s Corda platform

The fundamental design decision of Corda, which was made at the very beginning, is that Corda allows for limited data sharing and to facilitate compliant transactions between regulated institutions subject to reporting and data privacy regulations. We have been developing this platform significantly over the past few years and went to market with our first enterprise version in July 2018. As an enterprise-grade blockchain platform, Corda removes costly friction in business transactions by enabling institutions to transact directly using smart contracts, while ensuring the highest levels of privacy and security. This provides value to the economy and consumers.



Corda was originally built by the financial industry, for the financial industry. It was developed to leverage the power of blockchain to address their specific business challenges in a highly regulated industry. Corda can now be applied seamlessly to other areas of the business and sectors including healthcare, energy, and supply chains. Further information on R3's work, portfolio and its partners can be found on our website: <https://www.r3.com/>.

R3's Response to the RFI

We have organized the following response as an overview of our digital asset strategy, highlighting some of the key aspects of Corda's design, at some points in direct contrast to others, and at other times simply in relation to the characteristics mentioned in the RFI. We believe our approach will better inform the Commission and its operating divisions in understanding not only the technology and the virtual currency market, but also how the market will evolve over time enabling CFTC to regulate the market effectively.

R3's Digital Asset Strategy

We at R3 believe that considering bitcoin as the first blockchain major phase of innovation and the emergence of enterprise blockchain platform as the second, the creation of a new global capital market powered by enterprise security tokens will usher in the third.

The past year saw an increased focus on digital assets that offered the promise of a new, lower friction method of asset and capital formation. Such tokens, if developed appropriately and for enterprise usage, could automate or simplify much of the asset origination, issuance, execution, and secondary trading processes that make up much of investment banking today. Issuers of securities everywhere see the value in a more efficient, effective connection to those looking to allocate capital, all in a safe, regulated and automated environment.

R3's own research has shown a large market for digital assets in two forms, which is set to continue in 2019:

1. **Asset-backed tokens:** The digital token represents an asset that is held somewhere else, often a regulated custodian such as a bank. The token acts as a so called 'digital twin' and can be traded or exchanged freely on a blockchain with settlement finality, while the underlying asset remain in place at a custodian. Examples of asset-backed tokens are gold, real estate, and traditional stocks and bonds held in custody.
2. **Native asset tokens:** The digital token does not represent an asset but is instead the asset itself. These digital assets are issued directly onto the ledger. This could be a recognizable financial asset like bonds, equity or bank deposits that has some obligation back to its issuer. Examples of native-backed tokens include security tokens, utility tokens, and platform tokens.

The third form of digital asset, which R3 is not focusing on, are payment tokens, which are things like Bitcoin where there is no trust in the system or the issuer.



For R3, the same enterprise-ready focuses that led to the design and capabilities of our Corda platform also bring the best innovations to the token world. There are several enterprise token uses on Corda today, using the asset-backed token model already (e.g., HQLAx, Tradewind Markets). To continue to foster that, we are building a robust digital asset ecosystem on Corda through engaging users and collecting capability requirements and supporting partners in developing CorDapps (the applications that sit atop our platform). We work with digital asset issuers, market infrastructure providers, and digital asset purchasers.

It is critical that such token issuance and the lifecycle of the token be conducted in a secure and regulated manner. That means open platforms with well-defined governance, settlement finality, and strong identity. Each is detailed below:

- **Well-defined governance** enables participants to ensure liabilities are assigned, that they are dealing with appropriate actors, and that they can identify, manage and mitigate risks. Firms issuing, exchanging, and transacting in digital assets without proper governance and regulatory compliance threaten the firm's viability, cause uncertainty for market participants and generate operational risk.
- **Settlement finality** enables the real-world issuer to demonstrate compliance with associated finality regulations as well as reduce their own risk stemming from blockchain 'reorganizations' that can occur on other platforms (i.e. on platforms that use probabilistic settlement such as proof of work or proof of stake platforms that use the "longest chain" rule).
- A **strong identity layer** enables firms to know who is holding or has held tokens they have issued. This is particularly important from a compliance perspective.

As an additional note, cybersecurity is of utmost importance in any blockchain solution that is meant to be safe and reliable and, therefore, a prerequisite for use particularly in the enterprise context. Unfortunately, we have seen many platforms fall short on cybersecurity to date. Strong cybersecurity and strong security measures is a core focus of Corda and has been since the beginning. Corda transactions are secured using public key cryptography: the public key is used to confirm the identity of the entity participating in the Corda Network and the private key allows transactions to be signed between parties on a need to know basis.

Interoperability and tight integration with existing infrastructures are also important in terms of utility of a token, although less important from a security perspective.

- Interoperability design allows issuance of multiple different assets on the same network and enables sophisticated transaction types (e.g., delivery vs. payment or DvP). It also means users need integrate only once (similar to how ERC 20 tokens work, but without the other less desirable aspects of the public Ethereum network for use in a regulated application).
- Many of the world's largest financial institutions are deploying production-quality Corda nodes; we have designed Corda to be the platform that bridges seamlessly from the old world to the new.

Our Initiatives to Date

We have built and recently released Corda Settler, which is an open source CorDapp that shows other CorDapp developers how to structure flows to update and settle financial obligations arising from Corda based activities. Corda Settler allows two transacting parties to agree to the method of settlement, set additional conditions to the settlement, then execute the transaction, marking it settled if and only if all conditions are satisfied and the corresponding settling payment is successful. Settlement can be achieved with an on-ledger transfer of settlement assets (like cash), or with a payment initiation and confirmation on a non-Corda payment system.

Another recent development, which is representative of the uptake we are seeing from sophisticated legacy infrastructure providers, was announced recently. SWIFT gpi is integrating with Corda,¹ which means that banks will no longer have to continuously message, email, or call recipient banks to confirm that a payment has been made. This creates a smoother, more efficient process, but also allows more SWIFT users to onboard with gpi.

Conclusion

We believe the CFTC is focusing on the right areas in exploring the various types of digital assets that are issued on blockchain. A thorough assessment of the qualities and characteristics of both the assets and the underlying technology is crucial to determining appropriate regulatory treatment of the assets themselves. We would welcome the opportunity to continue our engagement with CFTC on the areas identified in the RFI and discuss in detail our response, face to face, to assist the CFTC'S policy development and framework in this space.

Respectfully Yours,



Charley Cooper
Managing Director, R3

¹ <https://www.swift.com/news-events/news/swift-to-bring-benefits-of-gpi-to-dlt-and-trade-ecosystems>