



July 31, 2020

Chief Counsel's Office
Attn: Comment Processing
Office of the Comptroller of the Currency
400 7th Street, SW
Suite 3E-218
Washington, DC 20219

Re: OCC Advance Notice of Proposed Rulemaking - Docket ID: OCC-2019-0028

Dear Sir or Madam,

ConsenSys appreciates the opportunity to submit this letter in response to the Advance Notice of Proposed Rulemaking (ANPR) issued on June 3, 2020 by the Office of the Comptroller of the Currency (OCC).¹

ConsenSys is a global blockchain software development and products company with a primary focus on the Ethereum blockchain. It was founded by Joseph Lubin, one of the co-founders of the Ethereum Network and the company is a leader in the Ethereum ecosystem. The Ethereum Network is one of the world's most successful open-source software development projects that is used by engineers to innovate in a myriad of industries, including FinTech. ConsenSys, through our software product offerings, investments and education programs, seeks to create a more inclusive, secure and open internet of value.

The ANPR seeks to assist the OCC in further understanding the evolution of financial services to ensure that bank regulations continue to evolve with developments in the industry. We are encouraged by the OCC's thoughtful and inviting approach to these issues.

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Question 4. What types of activities related to cryptocurrencies or cryptoassets are financial services companies or bank customers engaged? To what extent does customer engagement in crypto-related activities impact banks and the banking industry? What are the barriers or obstacles, if any, to further adoption of crypto-related activities in the banking industry? Are there specific activities that should be addressed in regulatory guidance, including regulations?

¹ OCC, National Bank and Federal Savings Association Digital Activities (June 3, 2020) <https://www.occ.gov/news-issuances/bulletins/2020/bulletin-2020-59.html>.

The Difficulty For Blockchain and Digital Asset Companies To Access Banking Services Creates a Barrier to Innovation and Further Adoption

Like all other businesses, blockchain and digital asset companies need basic services such as bank accounts, business loans and payroll services. However, many legitimate companies in this industry are unable to establish banking relationships and their bank account applications are often rejected. The inability of many blockchain and digital assets companies to obtain bank accounts hinders FinTech innovation in the United States, resulting in a barrier to further adoption of crypto-related activities in the banking industry.

When applications are rejected, the rationale for the rejection is often not clear and one can only assume that the rejection is solely due to the fact that a company is connected to blockchain technology and digital assets and is therefore deemed too risky. Without more information from the bank on why an application has been rejected, a company is unable to take steps to remedy potential deficiencies in its applications or operations.

A dearth of available banking partners creates additional disadvantages because the banks who are willing to provide services to companies in this industry have more stringent and less customer friendly terms. Compared to companies in other industries, digital asset companies face a greater uphill battle in finding competitive banking services, if at all.

We appreciate that the OCC has reaffirmed its position that national banks may provide banking services to any lawful business they choose, including cryptocurrency businesses as long as it is consistent with proper risk management and applicable laws.² Further, to ensure that companies in the blockchain and digital assets industry are not dismissed as *per se* high risk, OCC can issue guidance and clarification that blockchain technology is, at its core, computer software and that a mere connection to blockchain and digital assets alone does not necessarily create a heightened risk profile. Whether a company creates additional risk depends on its actual activities conducted by the company and this requires further understanding by the bank. If a bank rejects an application, it should provide more explanation to the applicant so that the applicant can properly remedy its application if needed.

As Digital Asset Securities Become More Popular, Clarification On How Banks Can Serve as a “Good Control Location” Can Facilitate Further Adoption of Crypto-Related Activities in the Banking Industry

The tokenization of traditional securities creates what many refer to as “digital asset securities.” Digital asset securities hold great promise in streamlining the business and issuance process between issuer, investor and other parties while shortening settlement times.

² See Jonathan V. Gould, Senior Deputy Comptroller & Chief Counsel, OCC, OCC Interpretive Letter #1170, Authority of a National Bank to Provide Cryptocurrency Custody Services for Customers at p.1 (July 22, 2020), <https://occ.treas.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1170.pdf> (OCC Interpretive Letter).

Participants who wish to deal in digital asset securities related activities must comply with relevant securities laws, including broker-dealer registration and applicable regulations. One important obligation is adherence to broker-dealer financial responsibility rules, including the custodial requirements under Rule 15c3-3 under the Securities Exchange Act of 1934 (“Exchange Act”). This rule is often known as the “Customer Protection Rule.” Broker dealers who work with digital asset securities must comply with the Customer Protection Rule.

The primary purpose of the Customer Protection Rule is to safeguard customers’ securities and funds that are held by a broker-dealer against investor loss in the event of a broker-dealer failure. In particular, the Customer Protection Rule requires a broker-dealer to physically hold customers’ fully paid and excess margin securities or maintain them free of lien at a good control location. Rule 15c3-3 provides that a “bank” as defined in Section 3(a)(6) of the Exchange Act can act as a good control location.³ However, there is lack of clarity on how banks can serve as a good control location for digital asset securities. To help facilitate growth of the nascent digital asset securities industry, it would be helpful for OCC to provide guidance on how banks can serve as a good control location for digital asset securities for purposes of the Customer Protection Rule.

In that context, it is worth noting a common misconception regarding digital asset securities. There is a common misconception that a digital asset format using distributed ledger technology (DLT) necessarily creates an increased risk that a broker-dealer maintaining custody of such securities would be victimized by fraud or theft by losing the private key. Relatedly, there is a misconception that digital asset securities are “immutable” and always lack a process to reverse or cancel mistaken or unauthorized transactions. There is a distinction between crypto assets such as Bitcoin and digital asset securities. Unlike crypto assets like Bitcoin, digital asset securities can be designed to minimize the risk of theft and impact of unauthorized transactions. A digital asset security token has to be issued by an issuer and the issuer can have control over the digital asset security because it can burn, or cancel, “bad” tokens if necessary. Tokens that are “lost” can be reissued by the issuer, similar to traditional securities, resulting in no harm to the customer.

Question 5. How is distributed ledger technology used, or potentially used, in banking activities (e.g., identity verification, credit underwriting or monitoring, payments processing, trade finance, and records management)? Are there specific matters on this topic that should be clarified in regulatory guidance, including regulations?

DLT has many applications in banking activities. Banks can utilize DLT for both customer facing functions and internal business processes. For customer facing functions, DLT is deployed on the application level. This may range from facilitating a marketplace that can be directly accessible by customers in order to achieve a particular business outcome, to creating a user interface to buy and sell digital assets.

³ See 17 CFR § 240.15c3-3 (defining “bank” for purposes of the customer protection rule); 15 USC § 78c(c)(6) (defining “bank” for purposes of the Securities Exchange Act of 1934).

When using DLT to enhance internal business processes, DLT is typically deployed at the network level. Banks can participate in DLT networks by operating a node which serves to secure and diversify the hosting of the relevant applications. An example of a network level activity is engagement in the governance of the network by fulfilling its obligation to operate infrastructure through a node.

Below are some examples of DLT use cases related to banking activities.

Identity Verification

Currently, identity verification is tied to a financial institution and is obtained in conjunction with a product. There is currently little to no opportunity for customers to obtain Know-Your-Customer (“KYC”) certifications independent of purchasing a financial product or to use a previously obtained verification with a different financial institution.

With DLT, an individual can own a “self sovereign identity” and previous verifications can be portable. Parties who have had experience with an individual can cryptographically sign and verify particular attributes regarding an individual. Once verified, the verifications are saved and held in a portable way by the individual. If the individual needs to demonstrate a particular attribute to a new party in the future, they can show them the existing cryptographically signed and secured verification, rather than perform the verification again.

There is a high cost for financial institutions to onboard new customers. These costs include compliance related costs such as anti-money laundering (“AML”) and KYC verifications. In part due to these high costs, financial institutions only pursue wealthier customers. As a result, those who are the poorest and most vulnerable in our society are left underserved. One does not need to look far to see these effects. In New York City, 11.2% of its households are without a bank account and 21.8% of its households use alternative financial products together with a bank account.⁴ OCC, as a member of the Federal Financial Institutions Examination Council, has acknowledged the importance of fostering inclusion and promoting banking access to the unbanked and underbanked.⁵

A digital system that utilizes cryptographic signatures and verifications is more secure, faster and eliminates analog human error. The ability to use existing verifications decreases the cost of customer acquisition for financial institutions. As the cost of customer acquisition decreases and becomes faster, financial institutions will have greater agency to onboard lower income customers. This will make banking services more accessible to the unbanked and underbanked population.

⁴ *Department of Consumer and Worker Protection Releases Updated Report: 1.04 Million Households in NYC are Unbanked or Underbanked*, NYC Consumer Affairs (October 2, 2019), <https://www1.nyc.gov/site/dca/media/pr100219-dcwp-releases-updated-report-households-unbanked-underbanked.page>.

⁵ *See Financial Regulators Statement on Financial Inclusion*, Federal Financial Institutions Examination Council (June 5, 2020), <https://www.ffiec.gov/press/pr060520.htm>.

Credit Underwriting

A credit underwriter can perform a more accurate assessment of a person's credit profile with more information. Inaccurate assessment of a person's credit profile results in the issuance of bad loans and denial of good loans. DLT can enable more holistic credit underwriting. In a future where an individual's actions and attributes can be verified cryptographically, these attestations can be lifted out of information silos and become securely accessible to interested parties such as lenders. Combined with artificial intelligence technology, lenders can find and analyze such newly available information to more accurately underwrite loans. Additionally, primary and secondary marketplaces may be created on top of DLT to share data and connect parties to the underwriting process.

Payments

In most business transactions, and especially for transactions involving multiple counterparties across many jurisdictions, the flow of information, coordination of signatures and processing of payments remains a cumbersome and error-prone process. Such multiple party collaboration is difficult because there is no natural trusted third-party who can facilitate these interactions. In the context of cross-border payments, the inefficiency is amplified by the decline in the number of correspondent banking relationships between banks that facilitate cross border payments.

DLT based networks alleviate these problems by permitting trusted coordination while eliminating the need for a trusted third party. Inherent in these networks is a governance model and the parties take part in securing the network by operating nodes for the network. The parties are then able to share information securely over the network and program business processes into smart contracts that can be executed with permission that is easily verifiable through cryptographic signatures. Other countries are currently piloting commercial payment models that can be turned into international settlement models with currencies issued by central banks.⁶ The United States should take a more active role in leading such innovation.

Trade Finance

In all financial transactions, there is a set of legal documentation that anchors the transaction. In large multi-party transactions, the coordination of information sharing and signature is a source of significant friction and inefficiency. DLT improves on the process of sharing information, documentation and facilitates signatures. The komgo platform, a network of global banks, commodity traders, energy corporates and other key players uses Ethereum to digitize letters of credit and to standardize operations across the traditional trade finance industry. Since its launch, komgo has surpassed \$1 billion USD of

⁶ See *Project Ubin's Fifth and Final Phase Highlights Commercial Potential, Paving Way Towards Live Adoption*, Monetary Authority of Singapore (July 13, 2020), <https://www.mas.gov.sg/news/media-releases/2020/project-ubin-fifth-and-final-phase-highlights-commercial-potential-paving-way-towards-live-adoption>.

financing on the platform and reduced the time to issue a digital letter of credit from an average of 10 days to 1 hour.⁷

The Covantis initiative is another example of a project which uses DLT to improve general business process management by modernizing global trade operations for commodities trading and shipping. The consortium is formed and headquartered in Geneva, Switzerland. The founding members and owners are Bunge, Cargill, COFCO, Louis Dreyfus Company and Glencore Agriculture. ConsenSys is a lead technology partner to develop the platform. The members seek to develop technologies to standardize and digitize global agricultural shipping transactions with a starting focus on automating grain and oilseed post-trade execution processes.

Digital Asset Securities Settlement

The process of securities settlement periodically undergoes significant transformation. Securities settlement evolved from paper certifications to involve central securities depositories that create electronic, uncertificated securities in order to eliminate the need to physically transfer pieces of paper.

To mitigate the principal risk inherent in settlement, the “delivery versus payment” model (“DvP”) is implemented so that the securities move only if the cash transfer occurs. In a DvP model, securities settlement involves a delivery portion where the ownership of the security is transferred from the seller to the buyer, and a payment portion where the corresponding cash proceeds are transferred from the buyer to the seller.

With digital asset securities, this principal risk management mechanism can be directly programmed into the asset through a “atomic settlement” mechanism that can facilitate simultaneous transfers. This, combined with potential central bank digital currencies that are currently in exploration by many countries, makes innovation in securities settlement promising. A digital asset security utilizing DLT reduces the need for trade reconciliation and confirmation. The ability to program tokenized security to have characteristics of bearer instruments provides an opportunity for beneficial owners to hold securities in their own name. This can improve anti-money laundering and KYC processes and create greater ease coordinating corporate activities such as dividend distribution and proxy voting.

The foregoing examples are not exhaustive. As the OCC has indicated in its Interpretive Letter #1170, national banks may provide services related to cryptocurrency such as “fiat currency exchange transactions, transaction settlement, trade execution, record keeping, valuation, tax services [and] reporting.”⁸ As the FinTech community continues to create innovative products, it is likely and beneficial for national banks and FinTech companies to work together in order to provide customers the most competitive services. As such, the OCC should consider how its regulations can further promote such collaboration.

⁷ See *Citi and ConsenSys Are Using Blockchain to Modernize Commodity Trading*, ConsenSys (March 10, 2020), <https://consensys.net/blog/enterprise-blockchain/how-citi-and-consensys-are-using-blockchain-technology-to-help-modernize-the-commodity-trading-market/>.

⁸ OCC Interpretive Letter at pg. 8 fn. 39.

Question 8. What new or innovative tools do financial services companies use to comply with applicable regulations and supervisory expectations (i.e., “regtech”)? How does the OCC’s regulatory approach enable or hinder advancements in this area?

Know-Your-Transaction

As customers gain interest in getting economic exposure to crypto assets, banks will need effective AML and combating the financing of terrorism (“CFT”) tools specific to this asset class. While AML and CFT compliance traditionally rely on KYC guidelines, next-generation compliance analysis for decentralised infrastructure requires evaluating the behavior of participating addresses, rather than a participant’s identity. This method of verification is known as Know-Your-Transaction (“KYT”).

KYT offers a number of benefits. It allows for real time transaction monitoring to help identify and stop suspicious behavior more quickly. For customers who are business, KYT provides the advantage of enhanced privacy integrity because it evaluates the behaviors of the addresses rather than the identity of the participants, which allows verification to be performed without compromising private business information. Codefi Compliance, a ConsenSys regulatory and compliance product, offers such a solution for AML and CFT compliance.⁹ The OCC should provide banks with opportunity and flexibility in exploring and studying KYT as a method to fulfill AML and CFT obligations.

Question 11. Are there issues the OCC should consider in light of changes in the banking system that have occurred in response to the COVID-19 pandemic, such as social distancing?

Covid-19 Highlights Need for Payments Innovation

Covid-19 has emphasized the importance of payments innovation in the U.S. Many Americans had difficulty in receiving their stimulus payments in a timely manner because they do not have a bank account and were not able to take advantage of direct deposit. This gap has led many in the industry to champion blockchain-based payment systems, paired with an identity solution, as an innovative solution. Blockchain-based payments can be performed at negligible costs and payments can be received and finalized within minutes rather than days. By paying Americans faster, the government can maximize the value of each dollar of subsidy.

Examples of aid distribution can be found in the humanitarian aid sector, where since 2008, global organizations and FinTech vendors have been experimenting with more efficient and secure aid distribution systems utilizing blockchain technology. Projects by the UN World Food Program and Oxfam exemplify the benefits of blockchain based aid distribution. Oxfam is using an Ethereum-based Cash and Voucher Assistance (CVA) program to disburse tens of thousands of dollars in aid at a time to

⁹ See ConsenSys Launches Codefi Compliance, ConsenSys (June 8, 2020), <https://consensys.net/blog/press-release/consensys-launches-codefi-compliance/>.

hundreds of people in minutes and at a near negligible cost.¹⁰ The UN World Food Program is using another Ethereum-based platform, Building Blocks¹¹, to distribute vouchers and cash transfers to over 153,000 Syrian and Rohingya refugees in Jordan and Bangladesh. They have distributed \$87 million through 5 million transactions to date.

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Sincerely,

/s/ Joyce Lai

Counsel, Law, Policy & Technology at ConsenSys

¹⁰ See Samuel Haig, *Oxfam Readies Phase Two of Dai-Based Vanuatu Disaster Relief Program*, Cointelegraph (September 27, 2019), <https://cointelegraph.com/news/oxfam-readies-phase-two-of-dai-based-vanuatu-disaster-relief-program>.

¹¹ See Building Blocks, WFP World Food Programme, <https://innovation.wfp.org/project/building-blocks>.