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Regulators Prepare for Innovation in Distributed Ledger Technology

At a Glance...

Regulators across the globe are considering how existing regulations may accommodate the development of new distributed ledger technologies (“DLT”) (also known as “blockchain”). In just the first two months of 2017, the U.S. Financial Industry Regulatory Agency, the European Securities and Markets Authority, and the International Organizations of Securities Commissions all have issued reports on DLT. The reports explain that integrating novel DLT products into existing regulatory regimes may prove challenging as DLT continues to develop. DLT market participants should pay close attention as regulators prepare to address perceived weaknesses or potential risks relating to blockchains in their regulatory frameworks, and be ready to voice any concerns to, or discuss potential DLT benefits with the relevant authorities. FINRA has requested comments on its report, which are due March 31, 2017.

Introduction

Regulators across the globe have turned their attention to consideration of how existing regulations may accommodate the development of new distributed ledger technologies (“**DLT**”) (also known as “**blockchain**”). In just the first two months of 2017, the U.S. Financial Industry Regulatory Agency (“**FINRA**”), the European Securities and Markets Authority (“**ESMA**”), and the International Organizations of Securities Commissions (“**IOSCO**”) all have issued reports on DLT.¹ As usage of such technologies has become more widespread over the past few years, some regulators, such as the U.S. Commodity Futures Trading Commission (“**CFTC**”) and the U.S. Securities Exchange Commission (“**SEC**”), have attempted to incorporate DLT innovations into existing legal and regulatory frameworks.

Others, such as the UK Financial Conduct Authority (“**FCA**”), the Swiss Financial Market Supervisory Authority (“**FINMA**”), and the Monetary Authority of Singapore (“**MAS**”), have created regulatory sandboxes for companies utilizing innovative technologies. But, as FINRA, ESMA and IOSCO all note in their recent reports, integrating novel DLT products into existing regulatory regimes may prove challenging as DLT continues to develop. DLT market participants should pay close attention as regulators prepare to address perceived weaknesses or potential risks relating to blockchains in their regulatory frameworks, and be ready to voice any concerns to the relevant authorities.

FINRA has requested comments on its report, which are due March 31, 2017.

Common Ground

In its recent report on financial technologies, IOSCO notes that more than 24 countries are currently invested in DLT, and 80 percent of banks are likely to be in the space in 2017. Thousands have filed patents on DLT and invested more than \$1.4 billion in venture capital money in the technology since 2013. Not surprisingly, in a few short years, DLT has caught the attention of lawmakers and regulators in countries throughout the world. At this stage, however, they have laid very little legal or regulatory architecture to govern the marketplace. Regulators, such as CFTC Acting Chairman J. Christopher Giancarlo, have emphasized the importance of coordination across domestic and international jurisdictions on addressing DLT.² The three reports issued by FINRA, ESMA and IOSCO this year generally are consistent, and evidence attempts at a harmonized international effort to understand DLT and respond to its integration into a global economy.

While the reports acknowledge that DLT is in the early stages of its development, the regulators appear to be driving the industry toward “permissioned,” as opposed to “permissionless,” platforms. Permissionless or open DLT platforms, such as the Bitcoin blockchain, are open networks that do not restrict participation to approved users and moderators (or “**nodes**”). Anybody, for example, can mine for and set up a virtual wallet to hold or transfer bitcoin through the Bitcoin blockchain infrastructure. In contrast, permissioned or closed DLT platforms restrict participation to a smaller population of nodes. In its report, IOSCO characterized permissioned platforms as an “opportunity,” and permissionless platforms as a potential “risk” for financial markets. For example, it explained that permissionless DLT may create know-your-customer and anti-money laundering problems. Both ESMA and IOSCO noted in their respective reports that permissioned platforms are better-suited to survive in the heavily regulated financial services industry.

The reports detail a laundry list of use cases for DLT in the global economy. The reports explain that businesses are working hard to develop “smart contracts” to replace traditional instruments, which could prompt thorny legal questions. FINRA,

ESMA, and IOSCO agree that DLT could be used to make recordkeeping and reporting systems much more efficient and robust. For example, such a system could allow a regulator to participate as a node on a network and receive reports in real time.

Each report also provides a largely consistent list of benefits and challenges presented by DLT. Some of the benefits detailed in the reports include: more efficient transaction settlement; improved recordkeeping and reporting; development of new asset classes; better information and data flow; and enhanced network security. The risks noted by the reports include: scalability issues; susceptibility to cyberattack; governance problems; technological issues; and unclear legal and jurisdictional questions.

Legal and Regulatory Challenges for Developers

The reports highlight notable issues that market participants should consider as they develop DLT platforms. For example, FINRA, ESMA, and IOSCO stated that firms hoping to supplant traditional securities and derivatives execution and settlement with DLT platforms must consider the mechanics and regulation of these functions. DLT may blur the line between execution and settlement by rolling the two into a single concept, which would likely run afoul of existing laws and regulations.

Moreover, IOSCO explained that developers will need to consider how margin is netted. If such platforms do not allow for netting, the counterparties will have to post and collect additional collateral. ESMA also noted that for transactions subject to mandatory clearing, DLT clearing platforms must meet the definition of a central clearing counterparty (or derivatives clearing organization in the United States) and comply with relevant regulations.

Similarly, the reports note that reporting platforms must be developed in accordance with existing laws and regulations that govern the form and timing of required reports. They explained that developers must consider potential regulatory conflicts with how the technology functions. Commenters to the ESMA report explained that DLT may raise data protection concerns. Regulation (EU) 2016/679 General Data Protection Regulation, Article 17 Right to erase ('right to be forgotten') (the "**GDPR**"), which is set to become effective in 2018, may conflict with the immutability of records in the case of natural persons. Under the GDPR, a natural person may request that an EU data processor erase data that the individual no longer wishes to be processed, if there are no legitimate reasons to retain it. DLT platforms would need to be developed to permit the erasure of data in order to comply, which may be impracticable. The GDPR should be considered by developers as they build DLT platforms that involve the storage of data concerning natural persons. It may require developers to separate the function of storing actual data pertaining to individuals from the blockchain itself,

where access codes or timestamp information could be stored, such that it can be erased without requiring each node on the system to reconstruct the ledger from the point that the data was originally added.

Engagement with Regulators

The recent reports on DLT demonstrate that market regulators across the globe are actively investigating potential applications of DLT, and considering these innovations under the perspective of current and prospective applicable laws and regulations. Market participants should review the various reports to understand and assess whether they must comply with regulations as they develop new use cases for DLT, or whether they should be meeting with regulators to help shape future regulations. ESMA noted in its report that “[a]t this stage, [it] believes that it is premature to fully appreciate the changes that the technology could bring and the regulatory response that may be needed, given that the technology is still evolving and practical applications are limited both in number and scope,” and stressed the importance of coordination and engagement with regulators. FINRA stated that it “welcomes an open dialogue with market participants to help proactively identify and address any potential risks or hurdles in order to tap into the full potential of DLT, while maintaining the core principles of investor protection and market integrity.”

DLT companies are in a unique position to help government entities craft regulatory regimes that best connect innovative technologies with regulatory goals. Those developing DLT applications for the financial industry should consider approaching and working with regulators to ensure the best results in any ultimate regulation.

FINRA has requested comments from industry on its report, which are due March 31, 2017. Specifically, FINRA requested feedback on all aspects of its report. FINRA’s report focused on the application of existing SEC and FINRA rules to DLT applications in the financial services industry. FINRA hopes that commenters will provide color on a wide variety of topics to help it better understand and regulate DLT. Market participants should consider contributing comments regarding:

- Use of DLT to trade public company stock
- Use of DLT to track trading and ownership of private company shares
- Custody and protection of customers’ digital assets
- Use of DLT to keep and maintain books and records
- Computation of digital assets into net capital requirements calculations
- DLT clearing and settlement platforms
- Compliance with anti-money laundering and customer identification programs (i.e., AML/CIP/KYC obligations)

- Compliance with laws and regulations concerning the protection of financial and personal data and customer information
- Reporting transactions using DLT
- Compliance with supervisory policies and procedures and surveillance systems requirements
- Fees and commissions for wallet management, key management onboarding
- Compliance with customer confirmation and account statement requirements
- Any general concerns regarding regulation of DLT platforms in the financial services industry

If you are interested in submitting comments individually or in collaboration with an industry group, such as the Chamber of Digital Commerce, please contact Kari S. Larsen (klarsen@reedsmith.com) or Michael S. Selig (mseelig@reedsmith.com).

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1. See FINRA, Distributed Ledger Technology: Implications for the Securities Industry – A Report from the Financial Industry Regulatory Authority (Jan. 2017), available at http://www.finra.org/sites/default/files/FINRA_Blockchain_Report.pdf; ESMA, Report: Distributed Ledger Technology Applied to Securities Markets (Feb. 2017), available at https://www.esma.europa.eu/sites/default/files/library/dlt_report_-_esma50-1121423017-285.pdf; IOSCO, IOSCO Research Report on Financial Technologies (Fintech) (Feb. 2017), available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD554.pdf>.
 2. Keynote Address of CFTC Commissioner J. Christopher Giancarlo before the ISDA's Trade Execution Legal Forum (Dec. 9, 2016), available at <http://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo-18>.

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