



Chamber of Digital Commerce  
1133 15<sup>th</sup> Street NW, 12<sup>th</sup> Floor  
Washington, DC 20005

Structured Finance Industry Group  
1775 Pennsylvania Avenue, NW, Suite 625  
Washington, DC 20006

March 31, 2017

Marie E. Asquith  
Office of the Corporate Secretary  
FINRA  
1735 K Street, NW  
Washington, D.C. 20006 – 1506

Via electronic submission to: [pubcom@finra.org](mailto:pubcom@finra.org)

**RE: Comments on FINRA's Report on Distributed Ledger Technology: Implications of Blockchain for the Securities Industry**

Dear Ms. Asquith:

The Chamber of Digital Commerce (the "Chamber") and the Structured Finance Industry Group ("SFIG") wish to thank the Financial Industry Regulatory Authority ("FINRA") for its focus on distributed ledger technologies (DLT) and their implications for capital markets.

The Chamber is the world's largest trade association representing the blockchain industry. Our mission is to promote the acceptance and use of digital assets and blockchain-based technologies. Our membership is comprised of over 100 companies innovating with and investing in blockchain-based technologies, including financial institutions, exchanges, software companies, top consultancies, and cutting edge fintech start-ups.

The blockchain ecosystem is currently valued to have a \$25 billion market capitalization<sup>1</sup> – and has grown over 200% each year for the past two years. The Chamber's diverse membership recognizes the value proposition of blockchain technology and its remarkable potential to positively impact the financial services sector of the global economy.

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<sup>1</sup> CryptoCurrency Market Capitalizations, Friday, March 31, 2017, at <https://coinmarketcap.com/>

Founded in March 2013, the Structured Finance Industry Group is a member-based, trade industry advocacy group focused on improving and strengthening the broader structured finance and securitization market. SFIG provides an inclusive network for securitization professionals to collaborate and, as industry leaders, drive necessary changes, be advocates for the securitization community, share best practices and innovative ideas, and educate industry members through conferences and other programs.

With over 350 institutional members, SFIG's membership represents all sectors of the securitization market including investors, issuers, financial intermediaries, law firms, accounting firms, technology firms, rating agencies, services and trustees. We engage in committee-based advocacy with 70 committees and task forces. Additionally, we host the largest capital markets finance conference in the world, with nearly 7,000 financial market participants attending our February-March 2017 SFIG Vegas conference.

SFIG's membership believes that securitization is an essential source of funding for the real economy, representing \$1.6 trillion, or nearly 30% of America's roughly \$6 trillion of annual bond issuance.<sup>2</sup> Securitization connects investors with desired investments and provides consumers and businesses with access to funding and capital. Securitization provides economic benefits that can increase the availability and lower the cost of credit to borrowers.

Given the importance of securitization for the overall economy and availability of funding for borrowers, SFIG has partnered with the Chamber to explore how DLT could reinvent securitization. We jointly commissioned a paper by Deloitte that analyzed in great detail the potential role DLT could play in the securitization industry. As stated in the introduction to this paper, "The global financial system is betting on blockchain to revolutionize many aspects of its business, and we... believe that securitization is one of the areas in the capital markets that could most benefit from the transformation."<sup>3</sup>

The Chamber and SFIG are impressed with FINRA's commitment to understanding blockchain technology and its potential for the United States' capital markets. The Report provides an excellent overview of the technology and its potential integration within the capital markets and we applaud FINRA's research and willingness to open a dialogue with both the blockchain and securities industries.

After having reviewed and discussed the Report with our members, we write on behalf of both the Chamber and SFIG to provide feedback on the Report from our perspective as industry associations for

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<sup>2</sup> Securitization Provides Meaningful Funding to the Real Economy, Moody's, March 11, 2015, at [https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBS\\_1003586](https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBS_1003586)

<sup>3</sup> Applying blockchain in securitization: opportunities for reinvention, Structured Finance Industry Group and Chamber of Digital Commerce, February 27, 2017, at [http://www.sfindustry.org/images/uploads/pdfs/4468418\\_SFIG\\_Blockchain\\_Report\\_FINAL.pdf](http://www.sfindustry.org/images/uploads/pdfs/4468418_SFIG_Blockchain_Report_FINAL.pdf)

companies involved in blockchain initiatives and securitization, respectively. SFIG's comments are focused on the ways in which DLT could transform the securitization industry.

Distributed ledger technology involves the use of a distributed, digital database on which participants maintain a continuously-growing list of synchronized records that may be grouped into "blocks" which are cryptographically linked in chronological order and safeguarded through the means of encryption and other unique identification measures. The Chamber and SFIG recognize there are a variety of differing definitions of DLT and that some object to the terms "DLT" and "blockchain" being treated as interchangeable; however, in this context, it is the common underlying concept and its potential impact on the securities industry that is important and, as such, blockchain and DLT are used throughout this letter interchangeably. Further, SFIG and the Chamber do not take any position regarding specific implementations of DLT. Some technology and implementation strategies serve certain sectors better than others. The Chamber simply advocates for greater understanding, implementation, and research in DLT. SFIG recognizes the potential of DLT for greater transparency, security and efficiency for participants in the securitization market.

The Report is the first, and a welcome, opportunity for the blockchain industry to engage FINRA in an open dialogue regarding the breakthrough potential and impact that the implementation of DLT could have on the capital markets, from a standpoint of both innovation and improvements to existing frameworks and processes. As this is an important opportunity for us to comment on the use of, efficiencies gained through, and potential innovation provided by, blockchain-based solutions in the securities industry, we will attempt to cover a variety of topics raised in the Report and provide further insight into the technology's vast potential.

First and foremost, it is important to note that we do not believe that blockchain, itself, should be the subject of regulation in the securities sector as blockchain technology is simply a tool that may be deployed in many ways to facilitate commercial activity (much like the internet 20 years earlier, to which blockchain is often compared). If DLT is, as hoped for and expected, widely adopted throughout the financial services industry, there is likely to be significant interaction with various financial regulatory regimes and, in that vein, the Chamber and SFIG understand that regulated activities, regardless of whether they take place in whole or in part through the use of DLT systems, will continue to provide investor protection and market integrity through existing regulatory oversight. Similarly, as advocates of blockchain, the Chamber very much acknowledges the paramount importance of security, privacy and transparency, which we will discuss further below.

The year 2017 promises to be an important year in blockchain, as more advanced market participants move from "proofs of concept" to pilot projects and a second wave of participants starts to engage more deeply with the technology and its potential benefits. For instance, both the Australian Stock Exchange and the Depository Trust & Clearing Corporation ("DTCC") are working on pilot programs to either integrate DLT into their current systems or completely replace the legacy systems with DLT. The

State of Delaware is exploring the use of DLT in order to automate a number of its processes. These tangible steps, taken by state-level governments, clearing entities and one of the world's leading financial market exchanges, demonstrate the widespread interest and belief that DLT can positively and effectively transform some of our oldest modes of commerce. For this reason, the Chamber and SFIG believes FINRA is taking a positive and important step in seeking to keep in front of these developments as blockchain-based solutions become increasingly common in the financial markets.

### **DLT in Practice – Benefits to Participants in the Financial Markets**

An important reason why the Chamber, SFIG, and the blockchain industry have been so active in promoting and educating the wider financial business and regulatory communities on the finer points of this innovation is because the benefits of implementation are far-ranging and myriad. Below, the Chamber and SFIG outline some of the key areas in which DLT has the potential to transform and improve the financial markets.

*Disintermediation and cost reduction.* DLT allows for more efficient clearing and settlement, which may eliminate or reshape the role of certain intermediaries, thereby significantly reducing costs while increasing efficiency and performance. For example, allowing for open and immutable records showing ownership of financial assets and documenting previous ownership and movement through the marketplace should reduce the risk of fraud and mistake and allow for a more efficient market by reducing the number of intermediary participants that do not provide independent value-added functions. While regulated gatekeepers will remain necessary, inefficient and risk-laden processes to verify asset ownership and reconcile securities accounts can be eliminated. The implementation of DLT should also reduce unnecessary counterparty risk and associated capital charges as well as improve the collateral management processes by providing a higher level of transparency than currently available.

We believe that the status quo of technology in capital markets will become increasingly cost prohibitive and unsustainable for enterprises to justify maintaining redundant, non-synchronized ledgers with the attendant need for constant reconciliation, as well as legacy applications built on these siloed databases. DLT can be like the most successful technology protocols that have preceded it and been adopted on a global basis – such as web site protocols (like http) and email protocols (like smtp) that three decades ago were just an idea. DLT can affirmatively enable new business models, resulting not just in cost-cutting but new top-line revenue opportunities as well. This emphasis on value generation with DLT and, indeed, the shift in focus with DLT from cost savings alone to savings paired with value creation, illustrates a much larger trend. The principal architect of Microsoft's Project Bletchley, their cloud-based, open blockchain as a service project, recently described blockchain as "a catalyst to inspire change in the way disparate organizations work together in highly competitive markets," and we strongly agree with this position. With DLT, more so than with any other class of technology to date, the financial industry is witnessing sustained, organized efforts at collaboration and adjacency as well as a purposeful rethinking of how markets can be more efficiently structured. Approximately 20 blockchain

consortia are active across various facets of financial services. Dozens of open source DLT projects are thriving, perhaps none more notable than the Hyperledger Project, and emphasis across buy-side and sell-side is mounting to build blockchain-based solutions that are truly interoperable across institutions, markets and borders alike. The benefits of DLT compound as collaboration grows and for this reason we expect these efforts to continue picking up speed.

In the immediate future, the Chamber and SFIG anticipate many current intermediaries in the financial markets, especially those relied on by regulators to ensure the safety and soundness of the U.S. financial system, will be some of the first adopters of this new technology, providing critical continuity between legacy systems and DLT-driven solutions. The world will not change overnight, but allowing the freedom now for at least smaller-scale implementation and learning is key to achieving the market and regulatory confidence necessary for DLT to reach its potential.

*Transparency, Risk Management, and Analytics.* Transitioning key participants in the securities industry to DLT-based systems would provide both these participants and market regulators access to large volumes of auditable, immutable real-time data. This data can power new private sector analytics solutions, creating jobs and bringing new players to the financial markets. From a regulatory perspective, access to a constantly updated, auditable set of agreed data can also allow a myriad of regulatory benefits, including more efficient Know-Your-Customer (KYC) and Anti-Money Laundering (AML) checks. Currently, complying with KYC requirements creates a great deal of duplicative data and work; whereas, if industry participants and regulators could agree on a consensus-based ledger as the repository of relevant data, it could allow for new service providers to facilitate KYC compliance and permit regulators greater insight into the relevant data and processes (recognizing that both KYC and AML inquiries will for the foreseeable future, also have a “local” component, driven by the institution making the inquiry, as well).

“RegTech” is a growing field bringing new technology-based solutions to regulated industries such as financial services in order to allow industry participants to comply with requirements more easily and efficiently and regulators to more easily and efficiently oversee such compliance. The integration of DLT-based solutions into securities industry processes by market participants would allow FINRA (and other relevant regulators, including the U.S. Securities and Exchange Commission (the “SEC”) access to real time data, which, after proper training, would allow regulators (or AI-based software deployed by them) to review transactions for issues, unexpected correlations or trends, and potentially put a halt to non-compliant behavior before it reaches a tipping point. For example, providing regulators with an observatory node on a specific DLT system would enhance their ability to efficiently monitor market activity and would allow for increased transparency and communication between industry and regulators.

For participants in the securities industry, DLT integration could provide more efficient solutions to some regulatory compliance obligations that are relatively costly and operationally challenging to meet. For

example, we believe the cost of compliance and complexity with the SEC’s Regulation AB II loan level data requirements could be greatly reduced as a direct result of DLT. As stated in the report that the Chamber and SFIG commissioned Deloitte to prepare, with loan-level data entered into a blockchain at origination and automatically updated, compliance reporting for Regulation AB II would be much simpler.<sup>4</sup> A key advantage of blockchain in loan origination and servicing is that downstream participants, such as investors, could easily follow a loan or pool of loans from issuance through maturity, be alerted to any modifications, and—if desired—easily model servicing behavior. The audit trail, by making any change easily visible and traceable, could reduce the chance of fraudulent modifications, and permit every asset (and every transaction involving that asset) to be linked to a particular security, facilitating asset perfection and eliminating the risk of double-pledging assets. “Loan and pool-level data would become not just more complete and easy to access, but more reliable too. This faster and easier access to more reliable loan-level data could potentially increase the number of loans that originators can sell. Some loans that might previously have fallen out of the pool due to a lack of loan-level data, or to concerns about the accuracy of this data, might now be appealing to purchasers.”<sup>5</sup>

Additionally, Regulation AB II requires issuers of asset-backed securities (“ABS”) to provide investors the opportunity to communicate with other investors, should they so wish. Currently, this could be a relatively burdensome requirement because the beneficial ownership of ABS held through a clearing system is difficult to track: ABS in a clearing system are held in street name and there is no guarantee a communication would reach the actual beneficial owner of the relevant security. In addition, the transparency that is inherent in the use of DLT would allow the market to better regulate itself. For example, as discussed above, investors in securitizations would potentially be able to monitor the performance of the underlying assets backing their ABS on a real-time basis. The values, liens and sales of a thousand properties involving a thousand mortgages, for example, could be seamlessly and automatically tracked if the right DLT could be implemented. This transparency should also significantly reduce the likelihood that a sponsor/originator might securitize assets that do not meet eligibility criteria, or mitigate the risk that failing assets might not be promptly identified.

However, it is important to note that further steps must be taken in order to fully integrate the current regulatory infrastructure with rapidly-evolving DLT technology. For this reason, we particularly appreciate this opportunity to work in partnership with FINRA to begin identifying places where the rules and interpretations can be made to work with DLT’s improved processes. Questions of appropriately custodying assets, including maintaining a good control location, potentially providing enhanced market access, addressing new methods for placing liens on assets, and determining the

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<sup>4,5</sup> Applying blockchain in securitization: opportunities for reinvention, Structured Finance Industry Group and Chamber of Digital Commerce, February 27, 2017, at [http://www.sfindustry.org/images/uploads/pdfs/4468418\\_SFIG\\_Blockchain\\_Report\\_FINAL.pdf](http://www.sfindustry.org/images/uploads/pdfs/4468418_SFIG_Blockchain_Report_FINAL.pdf)

extent to which traditional clearance and settlement functions (particularly netting and reconciling at multiple levels) can be made obsolete, may all require an easing of tried-and-true -- but cumbersome -- operational requirements. Even as advances against inefficiencies, settlement delays, failures to deliver, cybersecurity risk, naked short selling, lost assets, lost security holders, escheatment, and fraud are made using DLT, it is crucial that participants maintain focus on investor protection, soundness, and the integrity of the world's most vibrant financial markets.

*New financial market solutions.* In addition to increasing the efficiency and transparency of activities currently taking place in the securities markets with existing financial products, DLT also allows for the development of new products. Some innovations already taking shape include the use of smart contracts to automate some aspects of traditional securities and securities issued in natively digital form. For example, an insurance-linked bond could be issued in which a smart contract would be triggered to pay out investors as a result of a third party "oracle" showing that an extrinsically determinable event had occurred. Smart contracts could track securitized assets, prevent inconsistent conduct with respect to those assets, and even prompt consideration of an amendment of ratings of tranches. Smart contracts could enforce net capital maintenance requirements, could prompt customer disclosures, and could even effect tender offers and redemptions. While any new financial products and processes must take into account consumer protection and continuing market confidence, DLT offers increased capabilities to bring innovative new financial products to market and enhanced processes for new and existing products.

After we begin to see small-scale successes, larger-scale achievements will require the interoperability of the new technologies and the existing markets. The National Market System has moved toward a single form of market, and it may be time to consider how to reorient the direction that has taken. If only one alternative trading system or stock exchange implements DLT technology, or if only one counterparty considers DLT worth the regulatory effort to achieve compliance, the progress will falter. We look forward to working with FINRA and other regulators to find a path forward with respect to this challenge of interoperability and global application of DLT principles. It was only some 20 years ago that the SEC issued releases providing guidance for regulated firms to conduct regulated activity via websites. Other regulators took similar steps before and after those releases. Working with regulators, the financial industry has never looked back with the advent of online brokerage accounts, online banking, and trading communications systems.

*Improved data processing and security.* The distributed nature of the DLT systems, combined with the highest available levels of cryptography that, to date, have stood the test of time, can also dramatically improve the security of information used in the financial markets. The widespread adoption of a new technology, with the assent of regulations as appropriate, may have the added benefit of motivating financial services firms to transition from a multiplicity of legacy IT systems subject to significant vulnerabilities to a combined, mutualized platform that will be both more resilient to security breaches and more efficient. Per computer science theory, a distributed network using DLT technology is

fundamentally more sound, as it is much harder for a cyberattack to occur in numerous systems distributed on a network that cooperate with one another than one central server.

### **Key Observations**

As discussed above, it is our strong belief that DLT need not itself be subject to financial regulation, just as email and web sites are not regulated. Instead, as with the regulation of financial firms' web site content and the email correspondence of regulated personnel, the financial market activities to which DLT is applied should continue to be subject to functional regulation. Care should be taken by FINRA and other financial markets regulators not to inadvertently discriminate against the use of DLT-based solutions so long as the underlying regulatory policies and objectives currently in place are being met. This is consistent with global trends in DLT, as well as the historical practice of U.S. regulators, not to regulate the underlying technologies or software systems themselves and, over time, to interpret regulations to accommodate new technology.

Both acting SEC Chairman Piwowar (and Chair White before him) and acting Commodity Futures Trading Commission ("CFTC") Chairman Giancarlo have spoken about the potential of DLT in capital markets and have not advocated for the regulation of the technology, itself, but have stated the new technology, including DLT and other fintech innovations, need "breathing room" to grow into their potential. Most recently, and further spotlighting the U.S. regulatory community's ongoing commitment to, and keen interest in, modernizing and improving existing regulatory frameworks are the recent comments of the SEC's Chairman-nominee, Jay Clayton, who during his confirmation hearing affirmed his commitment to search for and invest in ways to use technology to, for example, improve the ability of regulators to monitor advisors and brokers. This is a clear indication that many regulators are pushing forward in the direction of embracing technology as a tool for more effectively dispatching with the regulatory mandate.

In addition, leading up to the G20 Summit on July 7-8, a report<sup>6</sup> was released calling for the creation of a global regulatory sandbox for DLT to allow for its continued growth and innovation. Given the vast advancements in the DLT industry thus far, we are in a strong and rapidly approaching position to showcase our products and capabilities to a willing and open-minded regulatory audience. It is fitting that a blockchain (an auditable chain made up of batches of transactions) is essentially akin to an audit trail (an auditable trail of transactions or batches of transactions). The collaboration of these communities should in our view only serve to advance the interests of regulators, innovators and market participants, alike.

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<sup>6</sup> The G20 Countries Should Engage with Blockchain Technologies to Build an Inclusive, Transparent, and Accountable Digital Economy for All, G20 Insights Platform, Think 20 (T20 Task Force), February 27, 2017, at [http://www.g20-insights.org/wp-content/uploads/2017/03/The-G20-Countries-Should\\_.pdf](http://www.g20-insights.org/wp-content/uploads/2017/03/The-G20-Countries-Should_.pdf)



*Rapidly developing DLT infrastructure.* As noted above, we are now at the stage where some of the earliest market participants to experiment with DLT-based solutions are currently moving toward implementing pilot programs and “real money projects”. For example, in 2015 Chain, Inc. effectuated a private issuance of its shares through the use of Nasdaq’s DLT system, “Nasdaq Linq” in what a seminal moment for the blockchain community. Linq is Nasdaq’s blockchain system, built upon Chain Core, Chain’s software offering. For purposes of this transaction, Nasdaq enabled the digital representation of the sale of the shares using its proprietary “Linq” DLT system. The transaction represented significant progress for DLT proponents and capital markets participants, alike, as settlement time was greatly reduced and physical stock certificates, rendered entirely unnecessary, throughout the course of the transaction. Linq and others have actually made further progress in parts of Europe where the forward-looking regulations have permitted. Also active in the equities trading space is Medici, a subsidiary of Overstock.com (one of the first online marketplaces to accept bitcoin for payment). Utilizing its proprietary tØ platform, earlier this year Overstock issued SEC-registered public securities, which exclusively trade on the tØ platform using cryptographically protected DLT. tØ builds upon DLT and contends that its decentralized nature means that transactions effected using its platform are more equitable, transparent and accessible for all market participants.

In March 2016, DTCC and Digital Asset announced plans to develop and test a DLT-based platform to manage the clearing and settlement of repurchase agreements. DTCC and Digital Asset have pursued this solution to reduce risk and capital requirements for the repo market by enabling DTCC’s Fixed Income Clearing Corporation (FICC) to become the settlement counterparty for repo transactions in real-time, which would allow for additional netting and offsetting between counterparties. DLT was chosen because of its capability to share information in real-time which would enable all parties to the trade to view trade details almost immediately after execution, which allows firms to agree to trade details faster, thereby resulting in lower risks and costs for counterparties.

Outside the U.S., the Australian Securities Exchange Ltd., (ASX) and Digital Asset announced a partnership to develop a DLT-based solution to address post-trade (clearing and settlement) functionality in the Australian cash equities market. The new technology will provide the opportunity to simplify and reduce the time necessary for post-trade processing as well as reduce risk and back office administration costs whilst potentially settling equity transactions in near real-time.

In May 2016, the State of Delaware announced that it is exploring the use of DLT with smart contract technology provider Symbiont. The impact of the initiative may include automation of a number of business processes for Delaware-registered companies, including incorporation services, share registry, capitalization-table management, voting and shareholder communications.

It was also recently announced that UBS, Deutsche Bank, Santander, BNY Mellon, and ICAP along with technology provider, Clearmatics, have joined together to explore the possibility of using DLT to clear and settle financial trades over blockchain, with the first commercial launch envisioned for 2018. The

use of the “Utility Settlement Coin”, or USC, would facilitate payment and settlement for institutional financial markets. USC is an asset-backed digital cash instrument implemented on DLT and is convertible at parity with a bank deposit in a corresponding currency and is fully backed by cash assets held at a central bank.

All these examples demonstrate that the integration of DLT in the capital markets is moving forward at a relatively rapid pace. It is important for U.S. regulators, like FINRA, to keep abreast of these moves and the changing technology so as to avoid having to play catch-up as new developments are announced and new programs are rolled out. The Report is an important step in ensuring the U.S. is not left behind and that regulators become comfortable with the changing landscape of the securities industry infrastructure. As the leading trade association for the blockchain industry, the Chamber would be pleased to provide additional information to FINRA or to meet with relevant staff to expand on any of the points in this letter. And as the leading structured finance trade association, SFIG would also be happy to provide more color on the potential interplay between securitization and DLT.

*Network Security and Privacy.* In our current environment, network security and data protection have become mission-critical topics across all industries, with vast resources being diverted to innovate and maintain integrity in the face of constant cyberattack. Unsurprisingly, these topics are the subject of vibrant discussion and debate in the blockchain industry as well. And while different approaches are being explored to solving the issues, the objective of providing the most robust security possible for data stored in a DLT environment, nevertheless, is always recognized as essential across our membership. Critically on this topic, we believe that DLT is inherently more secure than most legacy systems now used in the securities industry as a result of the cryptographic protections put in place as well as the system redundancy due to its distributed nature, but our members also recognize that there are important and unique challenges to address when implementing DLT-based solutions. As a general matter, personal data may be held on or off a DLT system, depending upon the specific application. There are also significant differences between various DLT systems currently being piloted, some of which utilize open or public ledgers, whereas other use permissioned ledgers in which only certain trusted (and, often regulated) financial institutions can participate. Whichever type of system is used, DLT has the potential to significantly improve the efficiency of safekeeping and record-keeping of data due to the immutable way in which “blocks” of information are generally linked together, and the high degree of resistance to network breach or malfunction involved (generally known as “Byzantine Fault Tolerance”). To achieve the dual goals of network security and data protection, however, it is vital that any regulation (e.g., data privacy regulation) does not prohibit private sector innovation in the development of DLT as this may curtail any benefits DLT could have to these and indeed other areas of the securities market lifecycle.

*Ownership & Governance.* The Chamber also recognizes that the governance model of DLT is a critical and foundational topic when considering the use of DLT-based solutions in the securities industry. A regulator must be able to have a point of contact and a process by which changes to a DLT protocol

utilized by multiple parties can be implemented. DLT-based solutions are inherently “mutual” in nature and the distribution of responsibility for ledger maintenance is what allows for security and immutability. Public and private DLT networks can provide different solutions to governance issues. This flexibility of form and structure illustrates the adaptive properties of DLT-based solutions to different environments and conditions and is in our view another reason why the larger industry should pay close attention to the potentially disruptive and landscape-changing possibilities of DLT.

For instance, the Linux Foundation has introduced an open-source “operating system” that enables engagement for marketplaces, data-sharing networks, micro-currencies and decentralized digital communities. In particular, the “Hyperledger Project” has been backed by a number of well-known conglomerates including IBM, J.P. Morgan, Wells Fargo and The Depository Trust and Clearing Corporation. The “Hyperledger Project” entails chains that have been “permissioned” through mutual consent and allows for consensus to be achieved more easily amongst nodes on the chains. This decentralized governance structure is both aimed at flexibility and autonomy, but without foregoing the need for safekeeping, protection and trust. In short, it enables the permissioned node the ability to move freely within the system, but to engage on its own terms in selecting the parties who share the correct encryption keys.

### **Regulatory Considerations**

The Chamber and SFIG do not see any of the regulations identified in the Report as a hindrance to DLT integration and innovation, though FINRA and other regulators should remain open to idea of reviewing and revising some regulations in order to allow for delivery through DLT networks rather than the legacy systems. Again, consumer protection and industry compliance should remain unchanged by a move to DLT networks and the DLT industry remains committed to ensuring any interaction with the securities industry is readily compliant. Advancements in technology may require some revision to existing rules and regulations that did not contemplate such systems. The Chamber and SFIG encourage FINRA and other regulators to continue to foster a dialogue with the stakeholders in a new DLT ecosystem to ensure all parties are best served by the current regulatory framework. In connection with this review, regulators should consider whether, in light of new DLT applications, existing regulations provide the most effective and efficient means of protecting investors.

### **Key Considerations for Integrating DLT into the Financial Services Landscape**

*Interoperability.* In this context, interoperability means two separate things: (i) DLT networks must be able to work together and (ii) virtual instruments should be easily convertible into fiat currency, and into other digital assets.

The first condition is essential in order for DLT to become an important part of the financial services landscape. The different platforms utilized by different market participants must be able to work

together and share data, where required. Because multiple companies are currently attempting to create the best, most stable and most secure systems, different institutions may choose different DLT protocols (and should be encouraged to do so based on the specific needs and desires of the institutions). We expect this process to take time, as DLT protocols evolve and market participants experiment to see which approaches are most suitable to their needs. As critical as cross-protocol interoperability may be to allowing financial institutions, stock exchanges, clearinghouses, and others to communicate effectively and share data across platforms, we believe that it is much too early in the process for any regulatory authority to step in and mandate a result or outcome that has not first been tested and fully accepted by market participants. Moreover, as DLT protocols evolve, so will systems designed to permit their interoperability, and we expect this iterative process to continue for quite some time. We look forward to working with FINRA and other market regulators to take real steps -- not half-steps -- fully into DLT, first on a small, manageable scale that contains unforeseen risks from affecting the larger markets, and then on a larger scale as the systems are proven to work as intended.

To evidence DLT's promise in the interoperability of networks, on March 30, 2017, 19 financial institutions, including sell-side, custodian and buy-side firms, disclosed completion of a project for issuing and servicing syndicated loans. Synaps Loans was the technology provider, using Symbiont's DLT technology and loan administration software provided by Ipreo. Credit Suisse led the project and has commented in the press that it expects to use the platform in production for loans issued beginning in the first quarter of 2018.

The second condition is similarly essential because until governments create virtual fiat currency available to most financial market participants (or until another system that achieves a similar result is developed and gains wide acceptance), the transfer of digital assets for non-digital assets will be only as effective as the conversion process. If DLT networks do not create frictionless systems for conversion, their adoption on a larger scale for purposes of widespread roll-out in financial transactions will take longer and be limited in terms of market penetration, reducing the many societal and regulatory benefits DLT has to offer.

*Use of Smart Contracts.* Smart contracts, though not discussed at great length in the Report, are an exciting new instrument and have tremendous potential to create efficiencies in many capital markets transactions. Smart contracts involve objectively verifiable performances, or performances that can be automated such as cash flows. As a result, financial contracts, broadly and creatively defined, present obvious opportunities. Smart contracts can reduce the costs of people having to calculate complicated outcomes, and thereby make possible new kinds of contracts that weren't possible before. Contracts-for-difference, are an example where software very rapidly and continually adjusts balances and can dispense cash flows based on frequently updated market prices. Smart contracts — by minimizing the need to trust a counterparty, a third party, or a foreign legal system — can also reduce counterparty risk and expand credit and other contracting opportunities through such trust-shifting technology. Thus, smart contracts have the potential to be particularly useful in financial service transactions. We expect

that, over time, smart contracts will be an important factor in favor of using DLT in capital markets transactions, from both an industry standpoint and regulatory standpoint.

## Conclusion

Again, the Chamber and SFIG applaud and encourage FINRA's interest in DLT and its integration into the securities industry. Currently, we do not believe in any new, restrictive regulations, but continue to encourage accommodations (in new regulation or in interpretation) that foster innovation and more efficient solutions without undermining the regulatory goal of investor protection. Regulation of DLT technology itself could hinder, at this point, the growth potential for such solutions and would impede the impetus and pace of innovation required for full integration into the securities industry and beyond. Furthermore, in our strong view, blockchain technology, itself, does not pose a danger to consumers or industry participants, but, in fact, can serve to foster integrity, trust and accuracy in the larger financial and investment communities. With that said, allowing and encouraging the transition of regulated activities onto DLT networks will undoubtedly create efficiencies in existing and new frameworks, a reduction in costs, and will integrate seamlessly into the current regulatory landscape.

The Chamber and SFIG thank FINRA for the opportunity to provide comments on the Blockchain Report. Should you have any questions about these or other topics, please do not hesitate to contact us at [policy@digitalchamber.org](mailto:policy@digitalchamber.org) or [Info@sfindustry.org](mailto:Info@sfindustry.org).

Respectfully submitted,



Perianne Boring  
Founder and President  
Chamber of Digital Commerce



Richard Johns  
Executive Director  
Structured Finance Investment Group

Cc:

Jason Brett, Chamber of Digital Commerce  
Sairah Burki, Structured Finance Industry Group  
Lewis Cohen, Hogan Lovells, LLC  
Loyal Horsley, Hogan Lovells, LLC  
Pallavi Devaraj, Hogan Lovells, LLC  
Jim Newsome, Delta Strategy Group  
Kevin Batteh, Delta Strategy Group