

## MEMORANDUM

To: Members of the Committee on Financial Services

From: Digital Assets, Financial Technology and Inclusion Subcommittee Staff

Date: May 31, 2024

Subject: Subcommittee on Digital Assets, Financial Technology and Inclusion Hearing: “Next Generation Infrastructure: How Tokenization of Real-World Assets Will Facilitate Efficient Markets”

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On Wednesday, June 5, 2024, at 9:00 a.m. the Subcommittee on Digital Assets, Financial Technology and Inclusion of the Committee on Financial Services will hold a hearing titled “Next Generation Infrastructure: How Tokenization of Real-World Assets Will Facilitate Efficient Markets.” The following witnesses will testify:

- **Carlos Domingo**, *Co-founder and CEO*, Securitize
- **Nadine Chakar**, *Global Head of DTCC Digital Assets*, Depository Trust and Clearing Corporation
- **Robert Morgan**, *Chief Executive Officer*, USDF Consortium
- **Lilya Tessler**, *Partner*, Sidley Austin LLP
- **Hilary Allen**, *Professor of Law*, American University Washington College of Law

### Background

Tokenization is the process by which an entity creates a unique, digital representation of an asset that can be transacted and stored with blockchain technology.<sup>1</sup> Blockchains are digital ledgers that record information as blocks of code on a transparent network.<sup>2</sup> Each computer on the network confirms the block of data and records the information so that no one source can delete or modify the block without consensus from the network. The blockchain is considered decentralized because there is no single, third-party entity to confirm the transaction.

Over the past several years, crypto-assets associated with newer blockchain networks have dominated the conversation surrounding blockchain technology. However, traditional financial institutions are exploring the benefits blockchain technology bring to *existing* markets, beyond crypto-assets. Entities can reduce reliance on, or even eliminate, intermediaries by using

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<sup>1</sup> What is tokenization?, MCKINSEY & COMPANY, (Mar. 6, 2024), available at <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-tokenization>; Anshika Bhalla, A Quick Guide to Fungible Vs. Non-Fungible Tokens, BLOCKCHAIN COUNCIL, (Dec. 9, 2022), available at <https://www.blockchain-council.org/blockchain/a-quick-guide-to-fungible-vs-non-fungible-tokens/>.

<sup>2</sup> What is Blockchain Technology, AMAZON WEB SERVICES, last visited May 7, 2024, <https://aws.amazon.com/what-is/blockchain/?aws-products-all.sort-by=item.additionalFields.productNameLowercase&aws-products-all.sort-order=asc>.

tokenization to represent assets and facilitate transactions. Specifically, tokenizing a specific asset can help increase liquidity, enhance price discovery, increase transparency, increase access, enable fractional ownership, among other things.

Depending on the nature of a specific asset, however, existing laws or regulations may create uncertainty regarding a person's interest or property rights associated with a tokenized asset. Some regulators and commentators emphasize the need to regulate assets according to their specific risk characteristics and not necessarily their underlying technology.<sup>3</sup>

## Use Cases

The most promising use cases of tokenization involve smart contracts to conduct transactions. Smart contracts are contracts on a blockchain that self-execute when specific conditions are triggered. The instructions or terms of the contract are tokenized by embedding the code into a block that is then placed on a blockchain. The contract's terms are memorialized by the other computers and when the contract's conditions are met, it is universally recorded. The transparent and unambiguous conditions of smart contracts allow for the seamless and automated execution of transactions. This aspect of blockchain technology has been used to effectuate the transferring of ownership of a variety of real-world assets.

### *Tokenization in Payments and Deposits*

Unlike the current U.S. payment infrastructure, blockchain networks operate 24/7/365. This allows for payments to be executed outside the hours of our traditional payment rails and be effectuated instantaneously. There have been various projects looking to explore blockchain technology and tokenization for both international and domestic payments.

For example, in August 2023, the Society for Worldwide Interbank Financial Telecommunication (SWIFT) announced its infrastructure could facilitate the transfer of tokenized value across multiple public and private blockchains. In this project, SWIFT found, “[t]he experiments successfully demonstrated that SWIFT connectivity and messaging standards – in combination with an interoperability protocol... – can be used to achieve interoperability between traditional

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<sup>3</sup> Lee A. Schneider & Sylvia Sanchez, *Understanding and Classifying Blockchain Tokens*, Int'l J. of Blockchain Law – Volume 8 (Mar. 2024), available at [https://assets.ctfassets.net/so75yocayyva/3A8xGMSRkSTM1FSptkrrqU/8014c57336ed8e4efb7dde7622054aed/International\\_Journal\\_of\\_Blockchain\\_Law\\_-\\_Volume\\_VIII.pdf](https://assets.ctfassets.net/so75yocayyva/3A8xGMSRkSTM1FSptkrrqU/8014c57336ed8e4efb7dde7622054aed/International_Journal_of_Blockchain_Law_-_Volume_VIII.pdf). (“Most tokens represent things that already exist, and they can be regulated - or not regulated - in the exact same way: same asset equals same risk, which results in same regulation. The legal and regulatory treatment should become readily apparent upon an analysis of the functions and features of a particular token to establish its nature. There are many forms by which an asset can be represented. DLTs are just one of the newest.”)

financial systems and emerging blockchain networks.”<sup>4</sup> Additionally, there have been other initiatives focused on facilitating seamless cross-border transactions in a similar manner.<sup>5</sup>

Domestically, there have been efforts to increase payment efficiency through the tokenization of bank deposits.<sup>6</sup> Banks traditionally use internal ledgers to keep records of customer deposits at their institution. Originally, these were recorded physically on paper ledgers but have since migrated to electronic ledgers. While these ledgers are digital, they are siloed and held individually by each financial institution. There are numerous efforts underway to tokenize bank deposits which could lead to instant settlement and improved transparency into transaction status. Having a shared, digital ledger of bank-to-bank transfers would facilitate faster payment, enable automated fund transfers, and expedite balance book settlement across institutions.

One initiative where the U.S. has seen momentum to tokenize deposits is through the USDF Consortium (USDF). USDF is a membership-based association of insured depository institutions focused on building a network of banks to facilitate adoption and interoperability of bank-minted tokenized deposits.<sup>7</sup>

#### *Tokenization of Private Securities and Illiquid Markets*

Tokenizing private securities has the potential to create liquidity in markets that have been otherwise very illiquid. Today, in the private markets, it can take significant resources to match buyers and sellers, but having a transparent market for these OTC securities can attract more participants into the market. Furthermore, shares can be fractionalized into a variety of sizes, increasing the pool of potential buyers. Some firms are also looking to tokenization to modernize the market and make the trading of exempted securities among accredited investors easier in the secondary market.

Today, firms have launched a number of tokenized products, from private equity and private credit,<sup>8</sup> bond issuance,<sup>9</sup> and private funds.<sup>10</sup> For example, issuers abroad have natively issued a

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<sup>4</sup> SWIFT. "SWIFT Unlocks Potential of Tokenization with Successful Blockchain Experiments." Press release, June 6, 2023. <https://www.swift.com/news-events/press-releases/swift-unlocks-potential-tokenisation-successful-blockchain-experiments>.

<sup>5</sup> See e.g. the International Monetary Fund (IMF)'s X-C platform and the Regulated Liability Network, which is an interoperable network comprised of all facets of the sovereign currency system.

<sup>6</sup> Ledger Insights, "JP Morgan Investigating Deposit Tokens," May 24, 2024, <https://www.ledgerinsights.com/jp-morgan-deposit-tokens-2/>; USDF Consortium, "About Us," accessed May 28, 2024, <https://usdfconsortium.com/about-us/>.

<sup>7</sup> See *What is USDF*, USDF Consortium, (2024) <https://usdfconsortium.com/about-us/>

<sup>8</sup> Bain & Company. "How Tokenization Can Fuel a \$400 Billion Opportunity in Distributing Alternative Investments to Individuals." Bain & Company, (Apr. 17, 2023), available at <https://www.bain.com/insights/how-tokenization-can-fuel-a-400-billion-opportunity-in-distributing-alternative-investments-to-individuals/>

<sup>9</sup> Cy Watsky et al., "Tokenized Assets on Public Blockchains: How Transparent is the Blockchain?" FEDS Notes, (Apr. 3, 2024), available at <https://www.federalreserve.gov/econres/notes/feds-notes/tokenized-assets-on-public-blockchains-how-transparent-is-the-blockchain-20240403.html>.

<sup>10</sup> Securitize. "BlackRock Launches Its First Tokenized Fund, BUIDL, on the Ethereum Network." (May 24, 2024), available at <https://securitize.io/learn/press/blackrock-launches-first-tokenized-fund-buidl-on-the-ethereum-network>.

bond, the parameters of which are programmed directly into smart contracts on the blockchain.<sup>11</sup> However, due to legal restrictions, digitally native financial products have not been issued in the U.S. without a corresponding set of traditional recordkeeping.

### *Tokenization of Physical Assets*

Beyond traditional financial instruments, virtually any other asset can be tokenized. For example, ownership in assets like art, intellectual property, and collectables can also be tokenized.<sup>12</sup> Similar to the liquidity issues with OTC securities, tokenization of the ownership stakes in these assets can facilitate greater liquidity in their respective markets.<sup>13</sup>

Others have explored tokenizing land and auto titles.<sup>14</sup> When transacting in real estate, it can take weeks to close, and many service providers are needed to complete the transaction. Tokenization may be uniquely situated to streamline this process.

Another benefit of tokenizing nonfinancial assets may be supply chain management.<sup>15</sup> A product can be traced all the way from a manufacture to the sale on a token tied to the product. In addition, this use of blockchain technology may become more prevalent as commercial entities look to track their inventory and gain instantaneous insights into their business.

### Legislative Proposals

H.R. \_\_\_\_\_, *To require the Commodity Futures Trading Commission and the Securities and Exchange Commission to conduct a study to assess whether additional guidance or rules are necessary to facilitate the development of tokenized securities and derivatives products, and for other purposes.* This bill requires the Securities and Exchange Commission and the Commodity Futures Trading Commission to jointly conduct a study to assess whether additional guidance or rules are necessary to facilitate the development of tokenized securities and derivatives products, and to the extent such guidance or rules would foster the development of fair and orderly financial markets, be necessary or appropriate in the public interest, and be consistent with the protection of investors and customers. This study would be reported to Congress no later than one year after enactment.

H.R. 8464, the *Tokenization Report Act of 2024* (Timmons). This bill would require the Federal Reserve, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, and the National Credit Union Administration to jointly submit a report on trends in the use of

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<sup>11</sup> Banco Santander. "Santander Launches the First End-to-End Blockchain Bond." (Sept. 12, 2019), available at <https://www.santander.com/en/press-room/press-releases/santander-launches-the-first-end-to-end-blockchain-bond>.

<sup>12</sup> Chainalysis. "Asset Tokenization Explained." Chainalysis Blog. Accessed May 21, 2024, available at <https://www.chainalysis.com/blog/asset-tokenization-explained/>.

<sup>13</sup> *Id.*

<sup>14</sup> Forbes Technology Council. "The Future of Real Estate Tokenization and Its Impact on the Industry." (May 22, 2023), available at <https://www.forbes.com/sites/forbestechcouncil/2023/05/22/the-future-of-real-estate-tokenization-and-its-impact-on-the-industry/?sh=4b8681f546bf>.

<sup>15</sup> Bateman, Alexis, and Leonardo Bonanni. "Building a Transparent Supply Chain." Harvard Business Review, (May 2020), available at <https://hbr.org/2020/05/building-a-transparent-supply-chain>.

blockchain technology to tokenize traditional assets. This report would be submitted to Congress no later than 180 days from enactment.