# Legal viability report

REGULATED SETTLEMENT NETWORK (RSN)
PROOF OF CONCEPT
December 5, 2024

# Contents

This report (this "Report") was prepared by Sullivan & Cromwell LLP in collaboration with legal and other representatives of the members of the Working Group for the Regulated Settlement Network (the "RSN") Proof of Concept ("PoC"). Throughout this Report, the terms "we" and "our" refer to Sullivan & Cromwell LLP, as the author of this Report. This Report is a high-level discussion based on our understanding of the structure of the RSN assumed for purposes of the PoC and the related early-stage design considerations reflected in the PoC and does not reflect all of the considerations that would be relevant in the design of an operational system. The PoC focused on the features of the RSN concept rather than finding the optimal technology to support it, and, if the RSN is developed, the technological system or features may differ from those evaluated in the PoC. If the members of the Working Group decide to proceed with the development and implementation of the RSN, these matters, and additional matters, would require further analysis as the structure of the RSN is developed, the details of its operation are determined, the rules are drafted, and the use cases are expanded and finalized. As a result, the analysis and conclusions in this Report may change.

We have prepared this Report to assist in the ongoing development of the legal underpinnings of the RSN. In authorizing the Working Group to make copies of this Report available to the public, we are not advising or undertaking or assuming any duty or obligation to anyone other than the Securities Industry and Financial Markets Association ("SIFMA"), as Program Manager to the Working Group, or establishing any lawyer-client relationship with them.

The New York Innovation Center ("NYIC") at the Federal Reserve Bank of New York was a technical observer in this PoC, and its role in this project was narrowly focused on observing the research and experimentation of the members of the Working Group.

The content of this Report, including any potential regulatory or supervisory frameworks for the RSN and the use cases and assumptions defined below, does not necessarily reflect the views of the Federal Reserve Bank of New York or any other parts of the Federal Reserve System, including with respect to the Federal Reserve's legal authority to participate in the RSN or any similar arrangement.

# Section 1

Introduction, Background and Executive Summary

# Introduction

The participants in the RSN U.S. PoC[1] engaged in a project to build upon the foundation established in the Regulated Liability Network U.S. proof-of-concept and explore the technical feasibility, legal viability and business benefits of a new financial market infrastructure ("FMI") concept for the settlement of financial transactions between regulated entities, such as commercial banks and broker-dealers. The concept explored in the PoC was a regulated FMI that would utilize a private, permissioned, shared ledger system and tokenized central bank deposits, tokenized commercial bank deposits and tokenized securities (including U.S. Treasury securities and investment grade ("IG") bonds issued by a U.S. corporate issuer) for settlement of payments and securities transactions between regulated financial institutions for their own benefit and on behalf of customers. The concept explored in the PoC would be designed to be interoperable with other networks to allow for settlement through direct API integration or standalone interoperability solutions. Sullivan & Cromwell LLP was engaged by SIFMA, as the Program Manager for the PoC, to perform an initial assessment of several legal issues implicated by the RSN PoC. This Report summarizes our assessment of specific matters relating to the structure of the RSN, its members,[2] the tokenized assets that may be created by Members for use within the RSN[3] and related matters that were identified by the Working Group.

1 The PoC was performed by a group of market participants. The participants in the PoC consisted of Citibank N.A., J.P. Morgan, Mastercard, Swift, TD Bank N.A., U.S. Bank, USDF Consortium LLC, Wells Fargo, Visa and Zions Bancorp (these institutions are referred to collectively in this Report as the "Working Group"). Additional project contributors consisted of The Bank of New York Mellon, Broadridge, DTCC, The International Swaps and Derivatives Association, Tassat Group and The MITRE Corporation. The NYIC at the Federal Reserve Bank of New York was a technical observer, as described above. SIFMA acted as Program Manager for the PoC, Digital Asset acted as technology provider for the PoC and Sullivan & Cromwell LLP was retained by SIFMA to provide legal support for the PoC.

2 In this Report, we refer to each institution that would become a member of an operational RSN as an "RSN Member" or a "Member." As described further below, based on the use cases evaluated in the PoC, the RSN Members may include commercial banks, broker-dealers, operators of third-party regulated networks that may interact with the RSN, operators of financial market utilities and other settlement infrastructure (including central securities depositories, central counterparties and clearing banks) and Federal Reserve Banks.

3 The tokens used in the RSN would be issued by the various RSN Members, and different Members may issue different varieties of tokens or use their Partitions (as defined below) in different ways. There would be no one RSN token of any type (i.e., a "deposit token," "governance token" or "security token") issued by the RSN FMI or anyone else. Accordingly, our analysis addresses only the contemplated use of the RSN Members' tokens within the RSN, and does not consider any other use of the same tokens or Partitions.

# Background of the RSN PoC and Description of the RSN

The PoC simulated a regulated network facilitating payment and securities settlement among commercial banks, broker-dealers, third-party regulated networks, Federal Reserve Banks and other financial market utilities ("FMUs") and infrastructure using a private, permissioned, shared ledger.[4] At its core, the RSN would be intended to facilitate transparent and real-time settlement using distributed ledger technology to coordinate settlements while permitting individual Members to maintain their respective individual digital ledgers and effect settlements in a fully regulated, efficient, secure and cost-effective manner.

The system evaluated in the PoC would include an RSN FMI entity (the "RSN FMI") that would operate a private, permissioned, shared ledger (the "RSN Ledger") to effect settlement of transactions between RSN Members.[5] Each Member would maintain[6] an individual ledger within a separate partition (its "Partition") recording its balances, and each Member would have access to the information on the RSN Ledger pertaining to transactions in which it is involved. Partitions would be updated based on the RSN Ledger, which could be done automatically, but the Members ultimately control their own Partitions. Each RSN Member would have control over any transactions or other updates that result in updates to its ledger by virtue of its right to approve or disapprove each transaction and authorize or refuse to authorize any transaction using smart contracts[7] within the RSN. The RSN Ledger would be the definitive record of the deposits and securities positions held and transferred through the RSN.

Each RSN Member would establish its own processes for tokenizing deposits held by customers or participants to which it offers RSN services relating to deposit accounts. These deposits, when tokenized, would be tokenized commercial bank deposits if the RSN Member is a commercial bank and tokenized central bank deposits if the RSN Member is a Federal Reserve Bank—and each Member would manage its own interface for its customers or participants both to convert "traditional" deposits into tokenized deposits available for transfer through the RSN and to submit transaction instructions. Members would not all be required to use the same technology for these processes so long as they are interoperable with the RSN. The RSN Member, including a Federal Reserve Bank, would have full control over its own tokenization process for deposits and for the conversion of traditional ledger-based deposit account balances to tokenized balances and vice versa. In all cases in the PoC, tokenized deposits would be wholesale deposits and would not be available to consumers or otherwise for any retail use. We refer to deposits represented in a Member's Partition and updated on Members' ledgers to reflect transactions settled on the RSN through the use of tokens as "Tokenized Deposits."

Each RSN Member that offers RSN services relating to securities positions would also establish its own processes for managing tokenized securities for its customers or participants. Each would have full control over its own tokenization process. We refer to securities positions[8] represented in a Member's Partition and updated on Members' ledgers to reflect transactions settled on the RSN through the use of tokens as "Tokenized Securities." In all cases in the PoC, Tokenized Securities would be wholesale and would not be available to consumers or otherwise for any retail use.

4 Although a system such as the RSN could theoretically include other regulated entities as Members as well, this Report does not consider other potential classes of entities that might participate in an operational RSN because the Working Group did not evaluate such participants as part of the PoC. Accordingly, this Report addresses only an RSN in which all the Members would be of the specified types (i.e., commercial banks, broker-dealers, third-party regulated networks, other operators of FMUs and infrastructure and Federal Reserve Banks).

5 Readers are encouraged to refer to the RSN Technical Feasibility Report for further details regarding the decision to use a private, permissioned, shared ledger.

6 If the Working Group decided to proceed with the development of an RSN, the individual Partitions of each RSN Member could be operated in a variety of ways, including by a service provider engaged directly by a Member, by a third party that provides permissioned access to a particular Partition (i.e., only to the particular RSN Member) or in some other way. We have not considered all possible permutations but do not intend to rule them out by focusing on the structure assumed for purposes of the PoC.

7 A smart contract is defined as "software code that is designed to automatically execute upon the occurrence of predefined conditions, deployed within a distributed ledger technology environment, and may be executed within the context of a binding agreement between the counterparties of a transaction." Global Fin. Mkts. Ass'n and Global Digit. Fin., The Smart Contract Primer 9 (Oct. 2024), available at https://www.gfma.org/wp-content/uploads/2024/10/gfma-gdf-smart-contract-primer-report-2024.pdf.

8 As described below in Section 4, these securities positions would be "security entitlements" under Article 8 of the Uniform Commercial Code, as enacted in New York.

The PoC evaluated five use cases for the RSN:

**Multi-asset DvP settlement use cases:**

1) The "**Client-to-Client IG Bond DvP Settlement Use Case**," which evaluated a "delivery versus payment" ("DvP") settlement of a cash purchase of IG bonds issued by a U.S. corporate issuer. The IG bonds would be held by broker-dealer RSN Members through the facilities of a central securities depository ("CSD") in the United States. The relevant purchase transactions would be originated by corporate customers of broker-dealer RSN Members, and the transactions would not involve a central counterparty ("CCP").

2) The "**Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case**," which evaluated DvP settlement of principal-to-principal trades of U.S. Treasury securities between commercial bank RSN Members. The applicable trades would be cleared through a CCP, and settlement would occur on the books of a clearing bank.

**Cross-network settlement use cases:**

3) The "**Cross-Network DvP Settlement Use Case**," which evaluated settlement of the payment leg of transactions originated by corporate customers of commercial bank RSN Members on the Mastercard Multi Token Network ("MTN").[9]

4) The "**Cross-Network Correspondent Bank Settlement Use Case**," which evaluated payments made by two corporate end users through their respective Tassat[10] commercial banks, which would not be RSN members, but would settle the payments through one or more commercial bank RSN Members as settlement agents (using a correspondent banking model).

5) The "**Intraday Repo Settlement Use Case**," which evaluated settlement of both legs of principal-to-principal repo transactions between two commercial bank RSN Members initiated off RSN on Broadridge's Distributed Ledger Repo solution ("DLR").

Each of these use cases is described in more detail in Section 2.

# Executive Summary

The topics we considered as part of the PoC, and a high-level summary of our preliminary conclusions, were as follows:

- The regulatory status of the RSN FMI and regulatory requirements that could apply to an RSN Member.
  - Although the United States does not maintain a national payment systems regulatory framework for FMUs that have not been designated as systemically important, there are several alternative means available to bring the RSN FMI within an appropriate Federal banking regulatory framework absent such a designation.
  - The RSN FMI may meet the definition of a "clearing agency" under the Federal securities laws, although exemptive relief from the Securities and Exchange Commission ("SEC") or no-action relief from the SEC's Division of Trading and Markets staff (the "Staff") may be available.
  - Depending on the development of the RSN and role it may provide in the U.S. economy, the RSN FMI could be determined to be a payment system and/or clearing agency and designated as systemically important. There may be questions as to which regulator should serve as the "supervisory agency" for a system that could be designated with respect to both payments and securities-related activities.
  - We do not expect that the RSN FMI would be required to register as a money services business or seek a money transmitter license, but discussions with relevant state regulators and the U.S. Department of the Treasury's Financial Crimes Enforcement Network ("FinCEN") may be prudent to confirm these conclusions and discuss any related implications, taking into account the design of the RSN as actually developed.
  - The activities of RSN Members contemplated in the PoC should be permissible for the commercial bank RSN Members, but those Members likely would be required to provide prior notice to or obtain supervisory non-objection from the appropriate Federal banking regulator.
  - None of the senders, recipients or RSN Members, as contemplated in the PoC, should be required to register as a money services business or seek licensure as a money transmitter based solely on its use of the RSN rather than another settlement system.

9 As discussed in the RSN Business Applicability Report, MTN is "a set of foundational capabilities designed to make transactions within digital asset and blockchain ecosystems secure, scalable and interoperable, ultimately enabling more efficient payment and commerce applications."

10 As discussed in the RSN Business Applicability Report, Tassat hosts a "private permissioned blockchain-based infrastructure, which provides a platform for the facilitation of real-time, tokenized commercial bank transactions between financial institutions."

- The legal finality of transactions settled using the RSN, as proposed, and related commercial law considerations, including under Article 4-A and Article 8 of the Uniform Commercial Code ("UCC"), as enacted in New York[11] and, for positions in U.S. Treasury securities held at a Federal Reserve Bank, the U.S. Treasury's regulations governing U.S. Treasury securities held through the commercial book-entry system involving Federal Reserve Banks.
  - Payments made using the RSN should be governed by Article 4-A of the UCC and should be final at the point specified in a rulebook for the RSN that would be developed in a later phase of the project (the "RSN Rulebook"). The point of settlement finality is generally expected to be when the RSN Ledger is updated in connection with a transaction, as described below in Section 2 for the use cases evaluated in the PoC.
  - Bringing all payments made, in whole or in part, through the RSN within the scope of UCC Article 4-A (so as to achieve simultaneous settlement of the entire payment chain) in all the use cases evaluated in the PoC would likely require the RSN to be a "funds-transfer system," unless it is possible to rely on a contractual agreement to which all relevant Members adhere.
  - Transfers of securities positions made using the RSN should be governed by Article 8 of the UCC, under the provisions governing the indirect holding system, or the U.S. Treasury's regulations regarding the Treasury/Reserved Automated Debt Entry System (the "TRADES Regulations"). Under the UCC or the TRADES Regulations, as applicable, these transfers should be final at the point specified in the RSN Rulebook. As described above, the point of settlement finality is generally expected to be when the RSN Ledger is updated in connection with a transaction.
  - The tokenization of securities positions in the RSN, and the use of the RSN to transfer Tokenized Securities, should not affect the ability of customers or participants of RSN Members to grant a perfected security interest in those positions.
  - The use of the RSN does not change the nature of the security entitlements recorded on the ledgers that form a part of the RSN (as discussed below) from a commercial or Federal securities law perspective,[12] nor would the contractual relationships governing the transactions evaluated in the PoC be altered from those in effect today. As a result, we do not believe the use of the RSN, rather than systems currently in use today, to record ownership of security entitlements to the types of securities considered or to effect transfers of those security entitlements would affect the application of the provisions of the Bankruptcy Code, the Federal Deposit Insurance Act (the "FDIA") or Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act") to those security entitlements, including the provisions providing "safe harbors" for repurchase agreements and securities contracts.[13]
  - It appears unlikely that the provisions of Article 12 of the UCC would, if enacted in New York, be applicable to the Tokenized Deposits or the Tokenized Securities, as they are contemplated in the PoC. Nevertheless, it would be important to evaluate in an operational RSN whether the provisions of Article 12 would be applicable to any tokens in the RSN so that, to the extent these provisions would apply, they could be addressed in an appropriate manner.

- The legal status of the Tokenized Deposits, Tokenized Securities and tokens used in the RSN under U.S. Federal securities and commodities laws.
  - As currently conceived, the tokenized central bank deposits and tokenized commercial bank deposits that would be available for transfer through the RSN should not be considered securities or be subject to the regulatory jurisdiction of the Commodity Futures Trading Commission (the "CFTC").
  - Similarly, we do not believe that the use of a different technology, or mechanism, to record changes in ownership of securities positions using the RSN should change the fundamental nature of those securities positions or create or result in the issuance of a new or separate security. We also do not believe that the Tokenized Securities would be subject to the regulatory jurisdiction of the CFTC.
  - We believe that the tokens used in the RSN to record ownership, and effect transfers of ownership, of Tokenized Deposits and Tokenized Securities should not be considered separate legal instruments for purposes of Federal securities and commodities laws.

11 Unless otherwise indicated, references in this Report to the UCC refer to the Uniform Commercial Code, as enacted by New York.

12 As noted above, we do not express any views as to the treatment of securities reflected on any interoperable system, or other aspects of the operation of those systems. Furthermore, when we discuss the treatment of the tokenization of securities and the effect of the tokenization and use of the RSN on those securities, we are referring only to those considered in the PoC. As a result, our conclusions as to those securities are limited to the U.S. Treasury securities or IG bonds reflected on the ledgers maintained in the Partitions by the RSN Members and the Federal Reserve Banks.

13 See, e.g., 11 U.S.C. §§ 362(b)(6), (7), 555, 559; 12 U.S.C. §§ 1821(e)(8)(C), 5390(c)(8)(C). If an operational system is developed, it will be important to evaluate any changes made to the contractual relationships among the parties to ensure that they continue to fall within any safe harbors on which the parties currently rely.

- The legal status of the Tokenized Deposits under the FDIA and the availability of Federal Deposit Insurance Corporation ("FDIC") insurance for Tokenized Deposits recorded on a ledger whose ownership is associated with and transferred using the tokens within the RSN.
  - The use of Tokenized Deposits to represent deposits on a commercial bank RSN Member's Partition should not affect the insured status of such deposits under the FDIA or related regulations because none of the provisions of the FDIA defining deposits or insured deposits depend upon or limit the technology used to maintain the ledger on which the deposits are recorded.
  - Although applicable Federal and state banking regulators may wish to update the regulatory framework or apply differing levels of oversight governing the use of new technologies to record the ownership of deposits on the books of insured depository institutions, the use of tokens themselves to effect changes in the ledgers maintained by banks should not affect the ability of banks to rely on the ledgers for purposes of complying with regulations relating to deposit insurance records.
  - Because the Tokenized Deposits would be reflected on the ledgers maintained by each relevant commercial bank RSN Member, and those Members' ledgers can be designed to comply with existing FDIC requirements as to the maintenance of deposit records, including the maintenance of all information required by FDIC regulations, the FDIC could conclude that the ledgers maintained by commercial bank Members within their RSN Partitions to effectuate settlements and record deposit account relationships should be sufficient to satisfy the rules of the FDIC. Nonetheless, given the critical nature of these records in the supervision and resolution of banks, discussions with the FDIC by each institution on this point would be essential.
- Federal securities regulatory implications of the RSN settling Tokenized Securities, such as compliance with certain SEC and Financial Industry Regulatory Authority ("FINRA") regulations.
  - RSN Members that are broker-dealers would remain subject to all present and future recordkeeping rules, either directly or through other means satisfactory to the SEC or FINRA, for securities transactions recorded on ledgers using the RSN. Although the recordkeeping rules are intended to be technology neutral, the SEC has expressed concerns over shared ledger technology, and thus, may conclude that records maintained on these RSN Members' Partitions do not satisfy their obligations.
  - The use cases involving tokenized U.S. Treasury securities would be required to comply with the recently adopted amendments to Securities Exchange Act of 1934 (the "Exchange Act") Rule 17ad-22(e)(18) (the "Treasury Clearing Mandate"). The use cases for the RSN evaluated in the PoC were designed, to the extent they involved U.S. Treasury securities, in a manner that would comply with these rules.
- The contractual enforceability of identified provisions that would be included in the RSN Rulebook.
  - Although the RSN Rulebook would be written at a later point, in reviewing the specific provisions that have been identified by the Working Group as necessary for the operation of an FMI in the form contemplated by the RSN, we have not identified any proposed provisions that, on their face, would raise concerns as to enforceability under New York law, subject to the usual limitations (e.g., bankruptcy, principles of equity, etc.).
  - Based on the structure of the RSN considered in the PoC, we believe New York would provide an effective and appropriate law and forum for the RSN Rulebook.[14]
  - The use of smart contracts by the RSN to carry out operations contemplated by the RSN Rulebook would not have legal significance separate from the RSN Rulebook, and the use of this technology does not impact the analysis contained in this Report.
- The application of U.S. anti-money laundering ("AML"), countering the financing of terrorism ("CFT"), know-your-customer ("KYC") and economic sanctions requirements to the operation of the RSN, as contemplated.
  - RSN Members would remain subject to existing AML, CFT, KYC and sanctions requirements (including sanctions administered by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC")). These requirements include due diligence, transaction monitoring and sanctions screening, and, to the extent they apply generally, would apply with respect to a Member's engagement with the RSN. Commercial bank and broker-dealer RSN Members maintain risk-based sanctions and AML compliance programs and would continue to apply these programs to all transactions utilizing the RSN. If these transactions were on behalf of customers, the customers would be, and would remain subject to, such compliance processes.

To date, we have not identified any insurmountable legal impediments that would prevent the creation of the RSN under current rules and regulations. We anticipate that many of these conclusions would be discussed with relevant regulators prior to the creation of the RSN.

14 We have not considered whether other jurisdictions could provide an effective and appropriate law and forum for the RSN Rulebook.

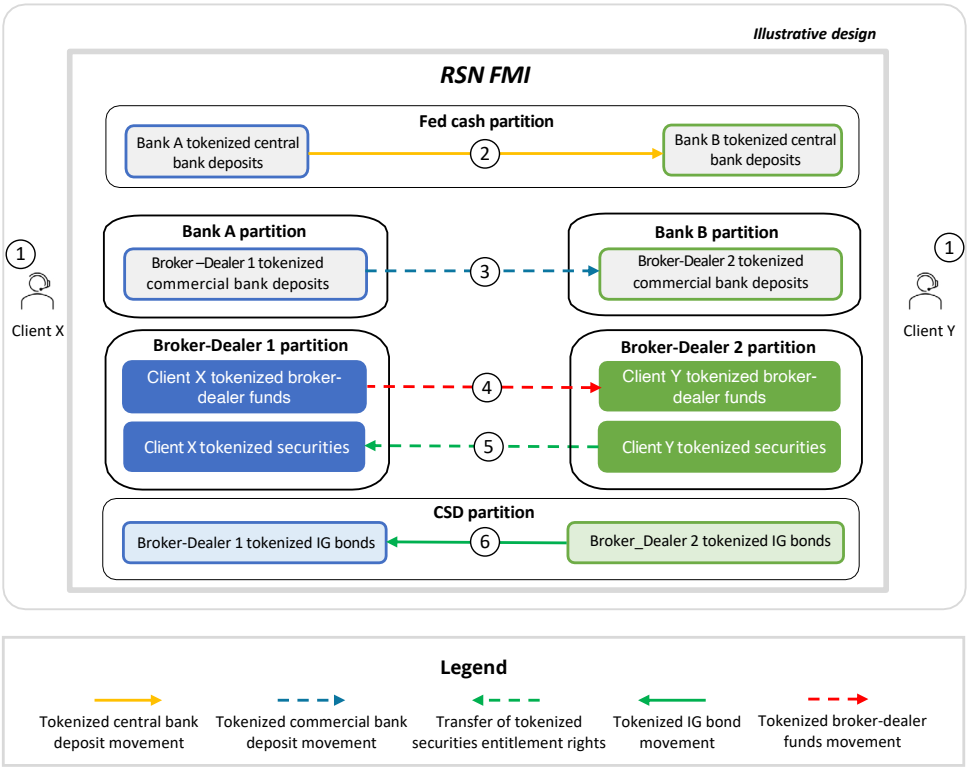
# Section 2

Summary of Use Cases

This section describes each of the five use cases evaluated in the PoC, including the key entities involved in effectuating a transaction through the RSN and the basic structure of a transaction. Each of the use cases is discussed in more detail in the RSN Business Applicability Report and the RSN Technical Feasibility Report.

# Multi-Asset DvP Settlement Use Cases

## Client-to-Client IG Bond DvP Settlement Use Case[15]




- The Client-to-Client IG Bond DvP Settlement Use Case explores a DvP settlement of a cash, secondary market purchase of IG bonds through the facilities of a U.S. CSD. The IG bond would be an obligation of a U.S. corporate issuer, and the transaction would not be centrally cleared through the facilities of a CCP. Each transaction would be between corporate customers of two separate broker-dealers, each of which would be an RSN Member with its own Partition. The RSN shared-ledger infrastructure would reflect Tokenized Deposits (including tokenized central bank money and tokenized commercial bank money) and Tokenized Securities. Each broker-dealer Partition would also reflect tokenized broker-dealer funds used to settle the transaction on behalf of its customer. The key entities involved in the process of effectuating a transaction would be:
  - The RSN FMI;
  - A corporate customer that would be the buyer of the securities (buyer);
  - An RSN Member broker-dealer that would receive a transaction settlement request from the buyer (Broker-Dealer 1);

15 The diagram for this use case differs from the diagram for the use case included in the Business Applicability Report. In this Report, we assume that the applicable clients would hold the relevant IG bonds through accounts at U.S. registered broker-dealers. The IG bonds would be transferred from one broker-dealer to the other through the facilities of a CSD, and the associated funds would be transferred through banks at which the two broker-dealers maintain deposit accounts. These assumptions reflect a common transaction structure, and enable us to address in this Report certain legal considerations that would be applicable to broker-dealers that would facilitate transactions in this use case as RSN Members.

- An RSN Member commercial bank at which Broker-Dealer 1 would maintain a deposit account used in connection with settlement of customer transactions (Bank A);
- A corporate customer that would be the seller of the securities (seller);[16]
- An RSN Member broker-dealer that would receive a transaction settlement request from the seller (Broker-Dealer 2);
- An RSN Member commercial bank at which Broker-Dealer 2 would maintain a deposit account used in connection with settlement of customer transactions (Bank B);
- A Federal Reserve Bank;[17] and
- A CSD.

- The basic structure of a transaction would be as follows:
  - The buyer and the seller would each instruct their respective broker-dealer to initiate settlement of the transaction to either buy or sell, respectively, the IG bonds.[18]
  - Broker-Dealer 1 and Broker-Dealer 2 would validate the transaction instruction by checking the buyer's available funds balance and the seller's available security balance, respectively, to ensure that the buyer and the seller each holds a sufficient balance to process the transaction.
  - Bank A (the bank holding a deposit account of the buyer's broker-dealer, Broker-Dealer 1), would validate the transaction instruction by checking the available balance of Tokenized Deposits held by Broker-Dealer 1 to ensure it holds sufficient funds to complete the transaction.
  - Broker-Dealer 2 (the seller's broker-dealer) would notify the CSD of the transaction, and the CSD would check the available balance held by Broker-Dealer 2 of Tokenized Securities in respect of the specific CUSIP for the transaction, and if the available balance is sufficient, it would earmark those Tokenized Securities.
  - Each commercial bank and broker-dealer RSN Member involved in the transaction—Broker-Dealer 1, Bank A, Broker-Dealer 2 and Bank B—would conduct its customary transaction-related compliance checks.
  - Bank A and Bank B would send a Receive vs Payment (MT541) message and a Delivery vs Payment (MT543) message, respectively, to the RSN FMI to construct a settlement path.
  - The RSN FMI would then send a "transaction proposal" to the RSN Members included in the settlement path (including Broker-Dealer 1, Bank A, Broker-Dealer 2, Bank B, the Federal Reserve Bank and the CSD) that identifies the transaction and all the RSN Members that must approve the transaction in order for it to be finalized. If any required RSN Member rejects the transaction, the transaction would not be finalized.
- Upon receipt of the transaction proposal:
  - The applicable Federal Reserve Bank would confirm that Bank A has sufficient tokenized central bank deposits or balance in its master account (i.e., traditional central bank deposits), in order to process the transaction.
  - If Bank A's tokenized central bank deposits balances are insufficient, the applicable Federal Reserve Bank would debit sufficient master account balances to be converted to tokenized central bank deposits to ensure that Bank A would have a sufficient balance of tokenized central bank deposits to process the requested transaction.[19]
  - The CSD would ensure that it has earmarked Tokenized Securities held by Broker-Dealer 2 for the specific CUSIP in a sufficient amount to process the transaction.
- Upon completing all checks, each RSN Member would send its cryptographically signed response to the transaction proposal to the RSN FMI, either approving or rejecting the transaction.
- The RSN FMI would collect the responses and verify digital signatures from the RSN Members included in the settlement path. Upon confirming approval and verifying the signatures of all necessary RSN Members:
  - The RSN FMI would update the RSN Ledger to reflect the state change and send notification to all RSN Members;

16 Corporate customers in all use cases explored in the PoC would be existing customers of a RSN Member that had been subject to its KYC and other compliance requirements. As contemplated in the PoC, all customers would be non-consumer entities; no consumer transactions would be completed using the RSN.

17 In the PoC, it was assumed that all RSN Members that settle with a Federal Reserve Bank would settle through a single Federal Reserve Bank that maintains both their deposit accounts and securities accounts.

18 The transaction would have been executed prior to being submitted to the RSN for settlement.

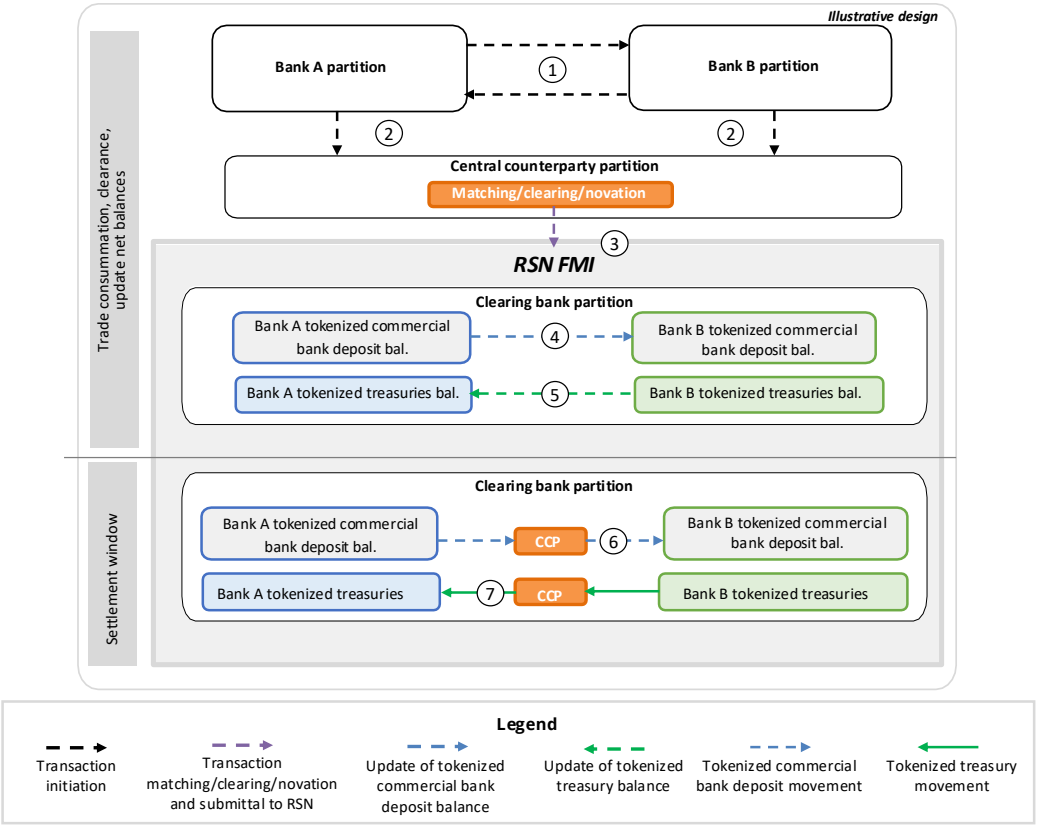
19 The PoC assumed, for all applicable use cases, that such conversion would be technologically feasible and subject to the Federal Reserve Board Policy on Payment System Risk and any other Federal Reserve System policies and procedures regarding overdrafts.

- The Federal Reserve Bank would debit Bank A's tokenized central bank deposit account and credit Bank B's tokenized central bank deposit account with the tokenized central bank deposits to reflect the transaction on the Federal Reserve Bank's "Fed Cash" Partition;
- The CSD would debit securities from Broker-Dealer 2's Tokenized Securities account and credit a corresponding amount to Broker-Dealer 1's Tokenized Securities account to reflect the transaction;
- Bank A would record that its tokenized central bank deposit account had been debited by the Federal Reserve Bank and would debit Broker-Dealer 1's tokenized commercial bank deposit account;
- Broker-Dealer 1 would record that its tokenized commercial bank deposit account had been debited by Bank A and would debit tokenized broker-dealer funds held on behalf of the buyer;
- Broker-Dealer 1 would record that its Tokenized Securities account had been credited by the CSD and would credit Tokenized Securities to the buyer's Tokenized Securities account;
- Bank B would record that its tokenized central bank deposit account had been credited by the Federal Reserve Bank and would credit Broker-Dealer 2's tokenized commercial bank deposit account;
- Broker-Dealer 2 would record that its tokenized commercial bank deposit account had been credited by Bank B and would credit tokenized broker-dealer funds held on behalf of the seller;
- Broker-Dealer 2 would record that its Tokenized Securities account had been debited by the CSD and would debit Tokenized Securities from the seller's Tokenized Securities account; and
- The transaction would be completed through the RSN, finally and irrevocably, at the time the RSN Ledger is updated and, at the same time, notification of settlement is provided to the applicable RSN Members, as provided in the RSN Rulebook.

- This RSN Ledger update and notification would be the "settlement event" for the Client-to-Client IG Bond DvP Settlement Use Case. The settlement event would be visible to all the RSN Members included in the transaction proposal submitted by the RSN FMI and would occur after confirmation of the last approval by a RSN Member in the transaction.

- Upon retrieving evidence of the settlement event from the RSN Ledger, each RSN Member (including the Federal Reserve Bank) would update its Partition (which could be done automatically by the RSN FMI following any update to the RSN Ledger) and reconcile its books and records.

## Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case




- The Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case explores a net settlement of cash purchases of U.S. Treasury securities. This use case was designed to test whether the RSN could accommodate the Treasury Clearing Mandate that will require direct participants of a covered clearing agency to submit certain transactions in U.S. Treasury securities for central clearing.[20] Accordingly, the use case introduces a CCP Partition and a clearing bank Partition, specifically to clear and settle principal-to-principal transactions between RSN Member commercial banks. The CCP would match, clear and novate trades, becoming the buyer to every seller and the seller to every buyer. Both the seller and the buyer would hold the relevant U.S. Treasury securities at the same clearing bank, and settlement of both the cash and securities legs of the transaction would occur on the books of the clearing bank.

- This use case assumes that each relevant trade is executed on a principal-to-principal basis between two RSN Member commercial banks. The key entities involved in the process of effectuating the transaction through the RSN would be:[21]
  - The RSN FMI;
  - An RSN Member commercial bank that is the seller of the U.S. Treasury securities (seller);
  - An RSN Member commercial bank that is the buyer of the U.S. Treasury securities (buyer);
  - A CCP; and
  - A clearing bank.

- This use case also provides for delayed settlement of transactions submitted to the RSN. With the delayed settlement, the process for settling a transaction would effectively occur in two parts:
  - First, after the trade is executed, it would be submitted to the CCP for matching, clearing and novation and forwarded to the RSN, after which each relevant RSN Member (including the buyer, the seller, the CCP and the clearing bank) would approve a proposal for the transaction sent through the RSN. Upon approval by these parties, the seller and the buyer would be

20 See Standards for Covered Clearing Agencies for U.S. Treasury Securities and Application of the Broker-Dealer Customer Protection Rule With Respect to U.S. Treasury Securities, Exchange Act Release No. 34-99149, 89 Fed. Reg. 2714 (Jan. 16, 2024).

21 Settlement in this use case would likely involve a multilateral settlement among members of the CCP. The description here has been simplified for illustrative purposes to address a settlement involving only two members of the CCP.

able to view their updated, unsettled cash positions and security positions in real time and would earmark the net position due to settle. At this point, the transaction is cleared, but not settled.

  - Second, at the end of a settlement window, settlement would occur on the books of the clearing bank, with Tokenized Securities and Tokenized Deposit accounts of the buyer, the seller and the CCP being debited and credited, as appropriate.

- The basic structure of a transaction would be as follows:
  - Once a trade is initiated by the seller, the buyer or a trading platform, the CCP would match, clear and novate the trade. The seller would earmark the relevant security off of the RSN in preparation for the transaction to take place within the RSN.
  - The CCP would create and validate the transfer request within its RSN Partition and would forward it to the RSN FMI to construct the settlement path.
  - The RSN FMI would then send a "cleared trade proposal" to the RSN Members included in the settlement path (including the seller, the buyer, the CCP and the clearing bank) that identifies the transaction and all the RSN Members that must approve the transaction in order for it to be cleared. If any required RSN Member were to reject the proposal, the trade would not be cleared.

- Upon receipt of the proposal to clear the trade:
  - The buyer and the seller would each check upon receiving the proposal that the updated cleared cash and security balance matches with their records.
  - The CCP would check upon receiving the proposal to ensure that the notification of the buyer's and the seller's obligations matches the appropriate settlement instructions and would perform necessary steps for trade clearance.
  - The clearing bank would check upon receiving the proposal to ensure that the buyer has sufficient tokenized commercial bank money and the seller has a sufficient balance of Tokenized Securities in the specific CUSIP for the transaction. The clearing bank can request the buyer provide additional funding if it does not have sufficient tokenized commercial bank money for the transaction.

- Upon completing all checks, each RSN Member would send its cryptographically signed response to the cleared trade proposal to the RSN FMI either approving or rejecting the transaction.

- The RSN FMI would collect the responses and verify signatures from all applicable RSN Members. Upon confirming approval and verifying the signatures of all such RSN Members:
  - The RSN FMI would update the RSN Ledger to reflect the state change and send notification to all RSN Members;
  - The clearing bank would update the unsettled cash and securities positions of the seller and the buyer; and
  - The seller and the buyer would receive notification of their updated net unsettled cash position and net unsettled security position.

- Subsequently, the clearing bank would send an MT548 Acknowledgment message to each bank, allowing each bank to earmark the appropriate net unsettled balance in advance of settlement.

- The RSN FMI would update the RSN Ledger to reflect the transaction as having been cleared.

- Upon retrieving evidence of the transaction being cleared from the RSN Ledger, each of the seller, the buyer and the clearing bank would update its Partition and reconcile its books and records.

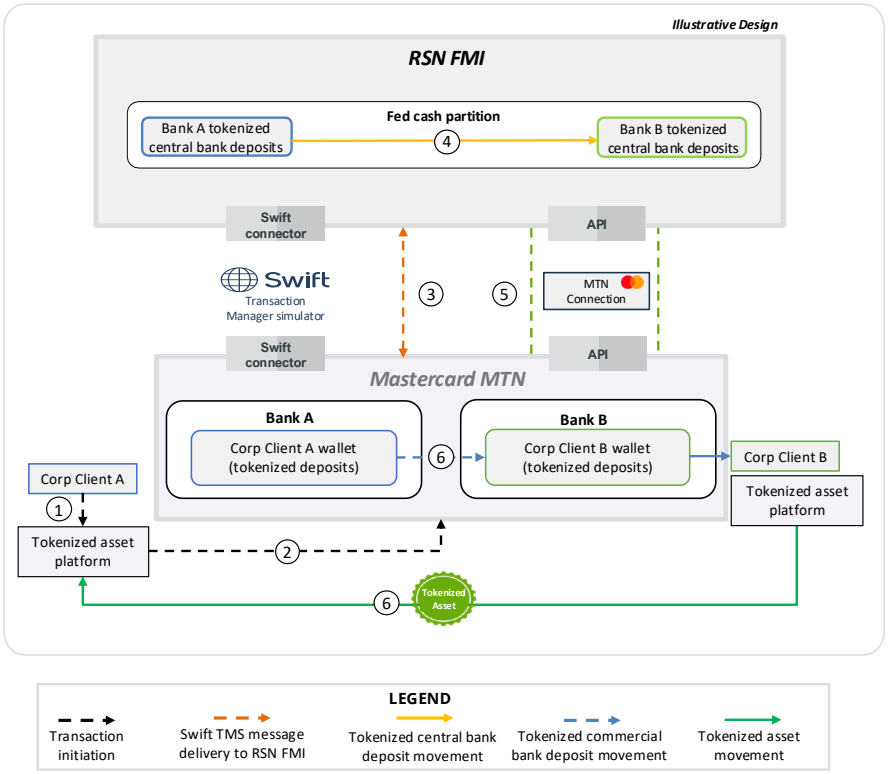
- This update would be the "clearing" event for the Centrally Cleared DvP Use Case. The clearing event would be visible to all the RSN Members included in the transaction proposal submitted by the RSN FMI and would occur after confirmation of the last approval by a RSN Member. Then, at the end of each settlement window, the RSN FMI would trigger settlement automatically.

- When the RSN FMI triggers settlement:
  - The RSN FMI would update the RSN Ledger to reflect the state change and send notification to the seller, the buyer and the clearing bank;
  - The clearing bank would debit the seller's Tokenized Securities account, credit the CCP's Tokenized Securities account, immediately debit the CCP's Tokenized Securities account and credit the buyer's Tokenized Securities account;
  - The clearing bank would debit the buyer's Tokenized Deposit account, credit the CCP's Tokenized Deposit account, immediately debit the CCP's Tokenized Deposit account and credit the seller's Tokenized Deposit account;
  - The seller and the buyer would receive notifications from the RSN FMI about the debits and credits; and
  - The transaction would be completed through the RSN, finally and irrevocably, at the time the RSN Ledger is updated and, at the same time, notification of settlement is provided to the applicable RSN Members, as provided in the RSN Rulebook.

- The clearing bank would notify the seller and the buyer via MT548 Acknowledgement message, and would subsequently reconcile its books and records. Upon receiving the MT548 Acknowledge message, the seller and the buyer would each reconcile its books and records.

# Cross-Network Settlement Use Cases

## Cross-Network DvP Settlement Use Case




- The Cross-Network Settlement DvP Use Case explores the sale of a tokenized real-world asset from one corporate client to another on a third-party platform (in this case, Mastercard's MTN). MTN would be integrated with the RSN, such that the payment leg of the transaction could be settled on the RSN by a transfer from the buyer's bank to the seller's bank. Both banks would be commercial bank RSN Members.
  - This use case contemplates how a corporate client that uses MTN to securely purchase a tokenized real-world asset could use the RSN, integrated with MTN, as a payment settlement solution using Tokenized Deposits. Notably, this use case only tested settlement of the payment leg of the transaction. The settlement of the other "leg" of the transaction (the transfer of assets from the seller to the buyer) would be effected through MTN and not the RSN. Settlement of the asset on MTN may not occur at that same moment in time, but the rules of MTN would establish the consequences for the buyer and seller if, for some reason, settlement of the transfer of assets on MTN were not completed.[22]
- In this use case, the key entities involved in the process of effectuating a transaction would be:
  - The RSN FMI;
  - The corporate customer that would be the buyer and would initiate a payment to settle its purchase of an asset on MTN (originator);

22 The enforceability of the MTN rules and finality of settlement on MTN were not evaluated in the PoC. Rather, it was assumed that MTN had completed all measures necessary to achieve the effectiveness of settlement on its own system, and the RSN would be responsible only for settlement of the payments "leg" of the transaction. If the RSN were to establish interoperability mechanisms with other settlement networks, we assume that the RSN FMI would perform appropriate due diligence as to the procedures of the other network to determine the point of settlement finality in relation to the relevant asset as part of its considerations in establishing the cross-network arrangement. Although such an interoperability mechanism may be designed to enable DvP settlements between the RSN and another settlement network, as is assumed in this use case, this Report only addresses the completion of the relevant payment by means of the RSN. The legal effect of settlements through the other network, including in relation to settlements through the RSN, would need to be evaluated in connection with the development of the applicable interoperability mechanism.

  - A commercial bank that would receive the request from the buyer via MTN (originator's bank);
  - A commercial bank that would maintain an account for the seller of the asset on MTN, the beneficiary of the payment transaction through the RSN (beneficiary's bank);
  - The entity that would be the seller of the asset on MTN and the beneficiary of the payment transaction through the RSN (beneficiary);
  - A Federal Reserve Bank; and
  - A connectivity method. Two connectivity methods were explored with the first being a direct connection from MTN to the RSN using RSN application programming interfaces ("APIs") and the second being the Swift interlinking prototype.[23]
  - Mastercard, as operator of the MTN platform.

- The originator's bank and the beneficiary's bank would be participants in both MTN and the RSN and would use the RSN to settle interbank payment obligations that arise from the transactions processed through MTN.

- The basic structure of a transaction would be as follows:

- Once a payment is initiated on MTN (following execution of the asset leg of the transfer), the following actions would be taken by the originator's bank and the beneficiary's bank on MTN:
  - The originator's bank would validate the payment instruction by checking that the originator has a sufficient balance in its deposit account; and
  - Both the originator's bank and the beneficiary's bank would perform their respective customary transaction-related compliance checks.[24]

- Upon these actions being successfully completed, MTN would send the transaction request and payment instruction via the direct APIs or a Pacs.008 message, through the Swift interlinking prototype, to the RSN FMI to construct a settlement path for the payment from the originator's bank, on behalf of the originator, to the beneficiary's bank, who would receive the payment for the benefit of the beneficiary.

- The RSN FMI would then send a "transaction proposal" to each RSN Member included in the settlement path (the originator's bank, the beneficiary's bank and the applicable Federal Reserve Bank) that would identify the transaction and all the RSN Members that must approve the transaction in order for it to be finalized. If any required RSN Member were to reject the transaction, the transaction would not be finalized.

- Upon receipt of the transaction proposal:
  - The Federal Reserve Bank would confirm that the originator's bank had sufficient tokenized central bank deposits or balance in its master account, in order to process the transaction.
  - If the tokenized central bank deposit balance of the originator's bank were insufficient, the applicable Federal Reserve Bank would debit sufficient master account balances to be converted to tokenized central bank deposits to ensure that the originator's bank would have a sufficient balance of tokenized central bank deposits to process the requested transaction.

- Upon completing all appropriate compliance checks, each RSN Member would send its cryptographically signed response to the transaction proposal to the RSN FMI either approving or rejecting the transaction.

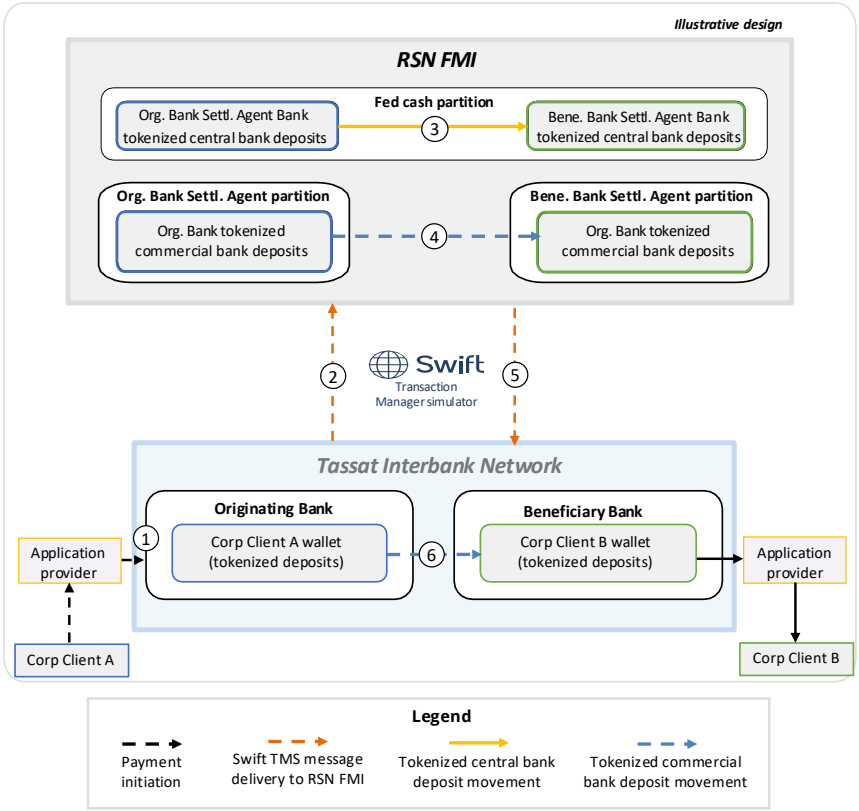
- The RSN FMI would collect the responses and verify signatures from the RSN Members included in the settlement path. Upon confirming approval and verifying the signatures of all such RSN Members:
  - The RSN FMI would update the RSN Ledger to reflect the state change and send notification to all RSN Members;
  - The Federal Reserve Bank would debit the tokenized central bank deposit account of the originator's bank and credit the tokenized central bank deposit account of the beneficiary's bank to reflect the transaction;
  - The originator's bank and the beneficiary's bank would receive notification of tokenized central bank deposits balance changes;
  - The RSN FMI would make available the status of the transaction for MTN via the direct API or it could send a Pacs.002 ACSC message to the Swift interlinking prototype, which would be routed to MTN, as notice that settlement of the payment leg through the RSN is complete; and
  - The transaction would be completed through the RSN, finally and irrevocably, at the time the RSN Ledger is updated and, at the same time, notification of settlement is provided to the applicable RSN Members, as provided in the RSN Rulebook.

23 Swift's interlinking prototype consists of a Swift Connector interface component and Swift Transaction Manager simulator ("Swift TMS") component, as reflected in the supporting diagrams.

24 These functions would be conducted by the originator's bank and the beneficiary's bank on MTN. If the originator's available balance were insufficient for the payment, the originator's bank would reject the payment instruction.

- This RSN Ledger update and notification would be the "settlement event" for this use case. The settlement event would be visible to all the RSN Members included in the transaction proposal submitted by the RSN FMI and would occur after confirmation of the last approval by an involved RSN Member.
  - Upon retrieving evidence of the settlement event from the RSN Ledger, each RSN Member (including the applicable Federal Reserve Bank) would update its Partition (which could be done automatically by the RSN FMI following any update to the RSN Ledger) and reconcile its books and records.
  - Once the status update is made available via the RSN API or the Pacs.002 ACSC message has been received from the Swift interlinking prototype, MTN would instruct the originator's bank and beneficiary's bank to make appropriate debits and credits for cash and the applicable asset in accounts of the originator and the beneficiary. Following the movement of cash and assets between the originator and the beneficiary at the originator's bank and the beneficiary's bank, MTN would notify the originator and the beneficiary that the transaction had been settled.

## Cross-Network Correspondent Bank Settlement Use Case




- The Cross-Network Correspondent Bank Settlement Use Case explores settlement through RSN of a payment initiated by a corporate customer of one Tassat-powered commercial bank for the benefit of a corporate customer of another Tassat-powered commercial bank. The Tassat-powered banks would not be RSN Members, but would each have a settlement agent that is an RSN member commercial bank, and settlement through the RSN would be made through these settlement agents.
- In this use case, the key entities involved in the process of effectuating a transaction would be:
  - The RSN FMI;
  - A corporate customer that would initiate a transaction (originator);
  - A non-RSN Member commercial bank that would maintain a deposit account for, and would receive the transaction request from, the originator (originator's bank);
  - An RSN Member commercial bank that would act as the settlement agent of the originator's bank (originator bank's settlement agent);
  - A corporate customer that would be the beneficiary of the transaction (beneficiary);
  - A non-RSN Member commercial bank that would maintain a deposit account for the beneficiary of the transaction (beneficiary's bank);

  - An RSN Member commercial bank that would act as the settlement agent for the beneficiary's bank (beneficiary bank's settlement agent);
  - A Federal Reserve Bank;
  - The Swift interlinking prototype; and
  - Tassat, as operator of the Tassat Interbank Network.

- The basic structure of a transaction would be as follows:

- Once a payment is initiated by the originator, the originator's bank on the Tassat platform would:
  - Validate the payment instruction by checking the available balance in the originator's deposit account to ensure that the originator holds a sufficient balance to process the transaction;
  - Perform its customary transaction-related compliance checks;
  - Debit the originator's deposit account in the amount of the transaction; and
  - Credit the originator's tokenized commercial bank money wallet on the Tassat platform for the amount of the transaction.

- These functions would be conducted by the originator's bank on the Tassat platform. If the originator's available balance were insufficient for the payment, the originator's bank would reject the payment instruction.

- Upon completing this process, the Tassat platform, on behalf of the originator's bank, would send a transaction request and payment instruction via Pacs.008 message, through the Swift interlinking prototype, to the RSN FMI to construct a settlement path including the originator bank's settlement agent, the applicable Federal Reserve Bank and the beneficiary bank's settlement agent.

- The RSN FMI would then send a "transaction proposal" to the RSN Members included in the settlement path (including the originator bank's settlement agent, the applicable Federal Reserve Bank and the beneficiary bank's settlement agent) that identifies the transaction and all the RSN Members that would be required to approve the transaction in order for it to be finalized. If any required RSN Member were to reject the transaction, the transaction would not be finalized.

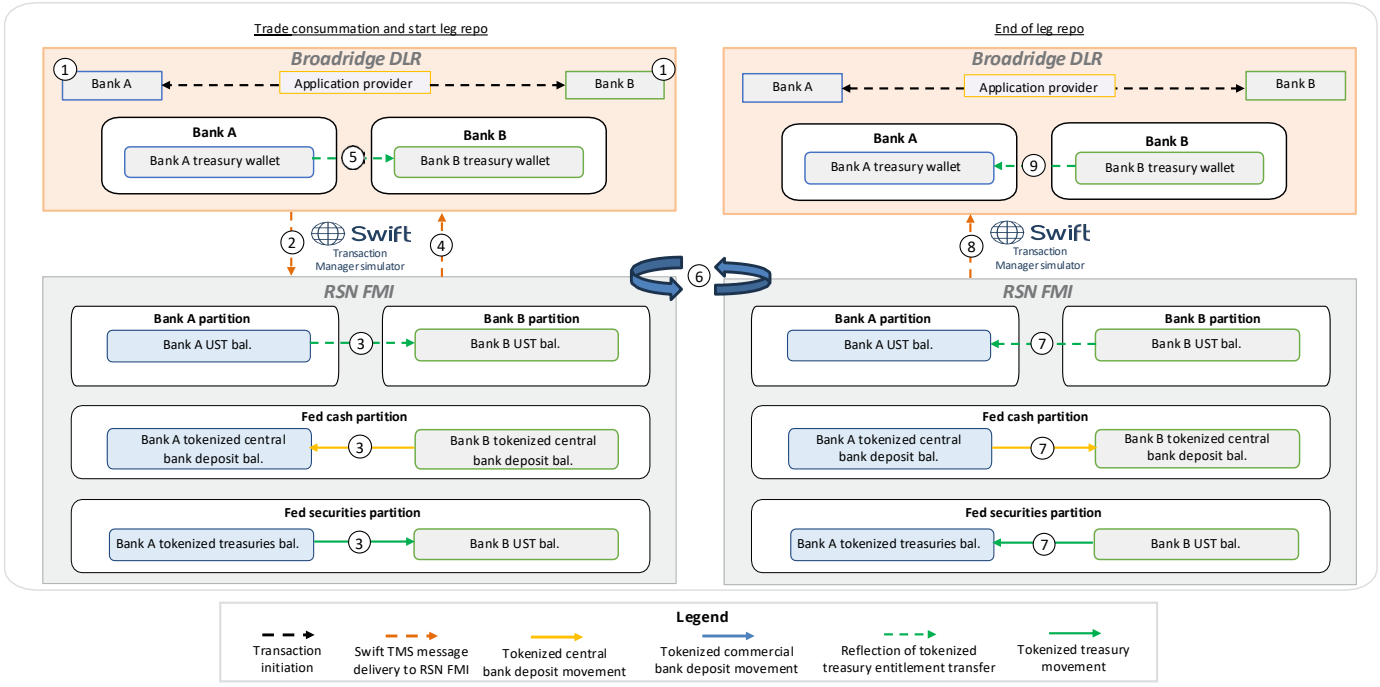
- Upon receipt of the transaction proposal:
  - The originator bank's settlement agent would confirm that the originator's bank has sufficient tokenized commercial bank money in its account at the originator bank's settlement agent.
  - The Federal Reserve Bank would confirm that the originator bank's settlement agent has sufficient tokenized central bank deposits or balance in its master account, in order to process the transaction.
  - If the tokenized central bank deposit balances of the originator bank's settlement agent were insufficient, the applicable Federal Reserve Bank would debit sufficient master account balances to be converted to tokenized central bank deposits to ensure that the originator bank's settlement agent would have a sufficient balance of tokenized central bank deposits to process the requested transaction.
  - Each of the originator bank's settlement agent and the beneficiary bank's settlement agent would engage in its customary transaction-related compliance checks in respect of the transaction and its role in relation to the transaction.

- Upon completing all compliance checks, each RSN Member involved in the transaction would send its cryptographically signed response to the transaction proposal to the RSN FMI either approving or rejecting the transaction.

- The RSN FMI would collect the responses and verify signatures from the RSN Members included in the settlement path. Upon confirming approval and verifying the signatures of all such RSN Members:
  - The RSN FMI would update the RSN Ledger to reflect the state change and send notification to all RSN Members;
  - The Federal Reserve Bank would debit the tokenized central bank deposit account of the originator bank's settlement agent in the amount of the transaction, and would make a corresponding credit to the tokenized central bank deposit account of the beneficiary bank's settlement agent;
  - The originator bank's settlement agent would record the debit to its tokenized central bank deposit account and debit the tokenized commercial bank deposit account of the originator's bank;
  - The beneficiary bank's settlement agent would record the credit to its tokenized central bank deposit account and credit the tokenized commercial bank deposit account of the beneficiary's bank;
  - The RSN FMI would send a Pacs.002 ACSC message to the Swift interlinking prototype which would be routed to the Tassat platform as notice that settlement through the RSN is complete; and
  - The transaction would be completed through the RSN, finally and irrevocably, at the time the RSN Ledger is updated and, at the same time, notification of settlement is provided to the applicable RSN Members, as provided in the RSN Rulebook.

- This RSN Ledger update and notification would be the "settlement event" for this use case. The settlement event would be visible to all the RSN Members included in the transaction proposal submitted by the RSN FMI and would occur after confirmation of the last approval by an involved RSN Member.
  - Upon retrieving evidence of the settlement event from the RSN Ledger, each RSN Member involved in the transaction, including the applicable Federal Reserve Bank, would update its Partition (which could be done automatically by the RSN FMI following any update to the RSN Ledger) and reconcile its books and records.
- Once Tassat platform receives the Pacs.002 ACSC message from the Swift interlinking prototype:
  - The originator's bank would debit the cash wallet of the originator; and
  - The beneficiary's bank would perform its customary transaction-related compliance checks. Upon completing these compliance checks, the beneficiary's bank would credit the cash wallet of the beneficiary.
- Tassat would then notify the originator and the beneficiary that the transaction had been settled.

## Intraday Repo Settlement Use Case




- The Intraday Repo Settlement Use Case explores settlement for intraday U.S. Treasury security repo transactions on a principal-to-principal basis between two RSN Member commercial banks that would also be members of Broadridge's DLR platform. The key entities involved in the process of effectuating the transaction through the RSN would be:
  - The RSN FMI;
  - An RSN Member commercial bank that is the seller of the securities (seller);
  - An RSN Member commercial bank that is the buyer of the securities (buyer);
  - A Federal Reserve Bank, which would operate both a cash (Fed Cash) and securities (Fed Securities) Partition;
  - The Swift interlinking prototype; and
  - Broadridge, as operator of DLR.
- This use case also provides for both legs of the repo transaction. The basic structure of a transaction would be as follows:

**Start Leg of Repo Transaction**

- Once a repo transaction is entered into between the seller and the buyer, the following actions would be performed on DLR:
  - The seller would validate the transaction, perform its customary transaction-related compliance checks, check that it has a sufficient balance in Tokenized Securities of the applicable CUSIP and earmark the applicable amount of that CUSIP in preparation for the transaction.
  - The buyer would authorize the transaction and perform its customary transaction-related compliance checks.
- DLR would, on behalf of the seller and the buyer, send an MT543 (Deliver Against Payment) message and an MT541 (Receive Against Payment) message, respectively, through The Swift interlinking prototype to the RSN FMI to construct a settlement path.
- The RSN FMI would then send a "transaction proposal" to the RSN Members included in the settlement path (including the seller, the buyer, the applicable Federal Reserve Bank with respect to its Fed Cash Partition and the applicable Federal Reserve Bank with respect to its Fed Securities Partition) that identifies the transaction and all the RSN Members that would be required to approve the transaction in order for it to be finalized. If any required RSN Member were to reject the transaction, the transaction would not be finalized.
- Upon receipt of the transaction proposal:
  - Each of the seller and the buyer would engage in its customary transaction-related compliance checks in respect of the transaction and its role in the transaction.
  - The applicable Federal Reserve Bank, for the Fed Cash Partition, would confirm that the buyer has sufficient tokenized central bank deposits or balance in its master account, in order to process the transaction.
  - If the tokenized central bank deposit balances of the buyer were insufficient, the applicable Federal Reserve Bank would debit sufficient master account balances to be converted to tokenized central bank deposits to ensure that the buyer would have a sufficient balance of tokenized central bank deposits to process the transaction.
  - The applicable Federal Reserve Bank, for the Fed Securities Partition, would confirm that the seller has a sufficient balance of Tokenized Securities in the specific CUSIP for the transaction.
- Upon completing all checks, each RSN Member would send its cryptographically signed response to the transaction proposal to the RSN FMI either approving or rejecting the transaction. Upon confirming approval and verifying the signatures of all the RSN Members included in the settlement path:
  - The RSN FMI would update the RSN Ledger to reflect the state change and send notification to all RSN Members;
  - The Fed Cash Partition would debit the buyer's tokenized central bank deposit account in the amount of the transaction, and would make a corresponding credit to the tokenized central bank deposit account of the seller;
  - The Fed Securities Partition would debit the seller's Tokenized Security account in the applicable CUSIP and would make a corresponding credit to the Tokenized Security account of the buyer;
  - The Fed Cash Partition and Fed Securities Partition would each notify the seller and the buyer via MT548 Acknowledgement message;
  - The RSN FMI would send a MT548 message to The Swift interlinking prototype which would be routed to DLR to notify that platform that settlement through the RSN is complete; and
  - The transaction would be completed through the RSN, finally and irrevocably, at the time the RSN Ledger is updated and, at the same time, notification of settlement is provided to the applicable RSN Members, as provided in the RSN Rulebook.
- This RSN Ledger update and notification would be the "settlement event" for the start leg of the repo transaction. The settlement event would be visible to all the RSN Members included in the transaction proposal submitted by the RSN FMI and would occur after confirmation of the last approval by an involved RSN Member.
  - Upon sending or receiving the MT548 message, each relevant RSN Member (including the Federal Reserve Bank) would reconcile its books and records.
  - Once the MT548 message is received from the Swift interlinking prototype, DLR would instruct buyer and seller to record the transfer of the securities positions and update their cash balances on DLR.

**End Leg of Repo Transaction**

- At the end of the repurchase agreement (the end leg of the repo), the RSN FMI would update the RSN Ledger to reflect the state change and send notification to all RSN Members:
  - The Fed Cash Partition would debit the seller's tokenized central bank deposit account in the amount of the transaction to reflect the end leg, and would make a corresponding credit to the tokenized central bank deposit account of the buyer;
  - The Fed Securities Partition would debit the buyer's Tokenized Security account in the applicable CUSIP and would make a corresponding credit to the Tokenized Security account of the seller;
  - The Fed Cash Partition and the Fed Securities Partition would notify the seller and the buyer via MT548 Acknowledgement message;
  - The RSN FMI would send a MT548 message to the Swift interlinking prototype which would be routed to DLR to notify that platform that settlement through the RSN is complete; and
  - The transaction would be completed through the RSN, finally and irrevocably, at the time the RSN Ledger is updated and, at the same time, notification of settlement is provided to the applicable RSN Members, as provided in the RSN Rulebook.
- This RSN Ledger update and notification would be the "settlement event" for the end leg of the repo transaction.
  - Upon sending or receiving the MT548 message, each RSN Member (including the Federal Reserve Bank) would reconcile its books and records.
  - Once the MT548 message is received from the Swift interlinking prototype, DLR would instruct buyer and seller to record the transfer of the securities positions and update their cash balances on DLR.

# Section 3

## Regulatory Requirements Applicable to RSN and Its Members

# Introduction

We evaluated which registration and regulatory frameworks would apply to the RSN FMI, including whether the RSN FMI would be regulated as a "systemically important financial market utility" ("SIFMU") under the Dodd-Frank Act. We also evaluated whether the RSN FMI or any of the parties involved in the RSN (including customers of a Member) would be required to register as money services businesses ("MSBs") or money transmitters under FinCEN regulations or state laws solely as a result of their direct or indirect participation in, or use of, the RSN. We anticipate that, to the extent any licenses are required to participate in and use the RSN, the RSN Rulebook would require Members to have those licenses in order to join the RSN.

Each RSN Member and user of the RSN would need to consider any additional regulatory regimes applicable due to its status, business or assets, such as the application of Federal bank regulatory requirements relating to notification of activities involving the use of shared-ledger technologies, digital assets or "crypto-assets," membership in a payment system, any applicable state law considerations, such as virtual currency-related rules or guidance and any potential "safety and soundness" concerns regarding participation in and use of the RSN. These requirements are undergoing rapid change, and will require ongoing attention and discussion with the applicable state and Federal regulators.

# RSN FMI as a Payment System

The United States has not adopted a holistic, national framework for the regulation of payment systems that applies to all FMUs involved in payments activities. Instead, the regulatory status of an entity involved in processing, clearing or settling payments depends on a variety of factors, including the nature of its activities, the laws of the state or states in which it operates, the extent to which the payment system relies upon access to other FMUs or regulated systems, the application of regulations administered by FinCEN and whether the system has been designated as systemically important under Title VIII of the Dodd-Frank Act. Each of these regulatory frameworks is applied independently, and an operator of a payment system is likely to be required to comply with more than one of these regimes.[25]

### Possible Federal Supervision and Regulation of the RSN

Because of the critical role that one or more Federal Reserve Banks would play in the settlement of payments through the RSN, the RSN's planned use by U.S. banks and the RSN's potential to become systemically important, we expect that an operational RSN would be subject to some form of Federal oversight. There are a few different mechanisms that may bring the RSN within the scope of this oversight.

*Title VIII of the Dodd-Frank Act.* The regulatory framework that most naturally applies to payment systems, which could include the RSN depending on how it is ultimately structured and the functionality provided, is Title VIII of the Dodd-Frank Act, which gives designated Federal regulators authority to supervise SIFMUs, including payment systems. However, this framework applies only to payment systems that have been designated by the Financial Stability Oversight Council ("FSOC") as SIFMUs. Although the statute authorizes the designation of a system that is "likely to become[,] systemically important"[26] but that has not yet reached that state, FSOC has not yet exercised this authority and it is unclear what threshold FSOC may apply in the future for such designation. FSOC also has not yet accepted a payment system operator's voluntary submission to regulation under Title VIII. Accordingly, if the RSN desired to be designated as a SIFMU, it seems unlikely that this framework would be available at the initiation of the RSN's operations.

If the RSN is determined to be a payment system and becomes "systemically important," and is designated as such by the FSOC under Title VIII, then it will become subject to extensive supervision and regulation which, as discussed below, may be by the Federal Board of Governors of the Federal Reserve System (the "Federal Reserve Board") or another supervisory agency. Title VIII gives the Federal Reserve Board the authority to adopt regulations governing all aspects of the operation of a designated FMU subject to its supervisory authority.[27]

This extensive framework would apply to the RSN, if it were determined to be an FMU and designated pursuant to Title VIII, and provides a suitable framework for the RSN to structure its operations around, even before it is designated.

*Bank Services Company Act.* Even if it is not subject to direct regulation as a designated FMU, the services provided by the RSN would likely be subject to Federal oversight under the Bank Service Company

25 For example, regulation as an FMU under Federal law, whether or not designated, does not generally affect the analysis of whether a party is a money transmitter under applicable state law. As discussed below, some, but not all, states have exemptions from money transmitter registration requirements for the operators of payment systems.

26 12 U.S.C. § 5463(a)(1).

27 See "RSN as a Designated Financial Market Utility" below for details on the Federal Reserve Board's regulations that apply to designated FMUs subject to supervision by the Federal Reserve Board.

Act (the "BSCA").[28] Under the BSCA, the appropriate Federal banking agency (as defined in the BSCA) has the authority to examine and regulate the provision of services by third parties to Federally regulated depository institutions.[29] This authority includes audit and inspection rights with respect to the service as well as enforcement authority over actions by the service provider that cause violations of law by regulated entities.

Under the BSCA:

> whenever a depository institution that is regularly examined by an appropriate Federal banking agency, or any subsidiary or affiliate of such a depository institution that is subject to examination by that agency, causes to be performed for itself, by contract or otherwise, any services authorized under [the BSCA], whether on or off its premises—(1) such performance shall be subject to regulation and examination by such agency to the same extent as if such services were being performed by the depository institution itself on its own premises, and (2) the depository institution shall notify each such agency of the existence of the service relationship within thirty days after the making of such service contract or the performance of the service, whichever occurs first.[30]

Services authorized under the BSCA include any activities that could be performed by a bank itself, as well as "any service, other than deposit taking, that the [Federal Reserve Board] has determined, by regulation, to be permissible for a bank holding company" under Section 4(c)(8) of the Bank Holding Company Act.[31] The provision of payment services has been found to be permissible for a bank holding company under Section 4(c)(8). As such, the provision of these services by a third-party service provider, such as the RSN FMI, to a depository institution, or its subsidiaries or affiliates, that is subject to examination by a Federal banking agency, would be subject to regulation and examination by the appropriate Federal banking agency to the same extent as if such services were being performed by the depository institution itself.

Although the obligations arising under the BSCA and the outsourcing guidance discussed below generally apply to the outsourcing financial institution and not to the service provider (and therefore would apply to RSN Members who are subject to the BSCA, rather than to the RSN FMI itself), they may result in obligations of the service provider, such as the obligation to submit to examination by the outsourcing financial institutions' regulators or the need to accept sometimes onerous contractual provisions.

The Federal banking agencies have adopted extensive regulatory and supervisory regimes for third-party service relationships entered into by such institutions, grounded in safety and soundness considerations.[32] The agencies' guidance establishes requirements for the contracts governing the relationships between banks and their service providers, including a requirement that banks must include in those contracts an agreement by the service provider that the performance of activities by external parties for the bank is subject to Federal regulator examination and oversight. Regulators have used this authority to examine the functions and operations of third-party service providers. These examinations may evaluate a broad range of risks, including safety and soundness, financial viability, compliance with AML requirements and compliance with other laws. The Federal banking agencies, through the Federal Financial Institutions Examination Council ("FFIEC"), have also developed an interagency program and related guidance for the supervision and examination of technology service providers,[33] which focuses on risk issues of management of technology, integrity of data, confidentiality of information, availability of services, compliance and financial stability. The extent of the regulatory scrutiny under this program depends upon the criticality of the service to the banks that rely upon it.[34]

*Formation as a Banking Entity and Related Regulation*. It may be appropriate to charter the RSN FMI as a state or Federal banking entity, such that it would be subject to regulation by its chartering authority as a banking entity—most likely a limited-purpose trust company or a specialized charter under the laws of an appropriate

28 12 U.S.C. §§ 1861-1867.

29 Id. § 1867(c).

30 Id. § 1867(c) (emphasis added).

31 Id. § 1864(f) (referring to id. § 1843(c)(8)).

32 See, e.g., FDIC, Federal Reserve Board, OCC, Interagency Guidance on Third-Party Relationships: Risk Management, 88 Fed. Reg. 37920 (June 9, 2023).

33 See FFIEC IT Examination Handbook: Supervision of Technology Service Providers (Oct. 31, 2012); Administrative Guidelines—Implementation of Interagency Programs for the Supervision of Technology Service Providers (Oct. 2012).

34 In the case of the RSN FMI, it is possible the Federal banking regulators would choose to exercise their rights to examine the FMI and/or the individual bank relationships and also to examine any material service provider to the FMI.

state.[35] If it were to become a member bank of the Federal Reserve System, it would become subject to regulation and supervision, like other state member banks, by the Federal Reserve Board. If the RSN FMI were to seek membership in the Federal Reserve System, it would need to assess how the Federal Reserve Board's *Policy Statement on Section 9(13) of the Federal Reserve Act*, issued on January 27, 2023,[36] may affect its membership application. Whether such an approach would be appropriate will depend on the nature of the activities to be conducted by the RSN FMI under the design that is ultimately implemented, taking into the account the factors considered by the Federal Reserve Board (including appropriate risk controls) in deciding on applications for membership. Further analysis and discussion with Federal regulators as to the appropriate framework for supervision of the RSN FMI will be necessary as the RSN is developed.

### State Money Transmitter Regulations

Another framework for regulation of payment systems is state money transmitter regulation. The definition of "money transmitter," the registration requirements, and the exemptions from registration requirements vary from state to state. A state's jurisdiction to require registration under its money transmitter laws is generally based upon whether a person: (1) conducts business within that state; (2) serves customers located within that state; or (3) advertises to or targets customers within that state. Given the assumption that the structure of the RSN considered in the PoC would rely upon the Federal Reserve Bank of New York ("FRBNY") to settle payments among RSN Members, and the expected inclusion of banks in New York, it will be necessary to consider New York law, at a minimum.

New York law states that "[n]o person shall engage in the business of selling or issuing checks, or engage in the business of receiving money for transmission or transmitting the same, without a license therefor obtained from the superintendent."[37] Regulations of the New York Department of Financial Services ("NYDFS") provide that "[t]he term money transmission shall include all instruments sold or issued including travelers checks, money orders, checks, drafts, orders, wire or electronic transfers, facsimile transfers and shipments by courier for the transmission or payment of money."[38] Key elements of the definition of money transmitter include (1) receiving money from customers for transmission and (2) issuing or selling payment instruments, such as checks, stored value or payment access.

As considered in the PoC, the RSN FMI would not receive money for transmission,[39] would not control any account or accounts of third parties and would not issue or sell any instruments. As such, we expect that it likely would not be required to register as a money transmitter in New York.[40]

There is a possibility that the RSN FMI could be deemed to be engaging in the business of transmitting money, even though it would not receive or control any funds, by virtue of its role in issuing payment orders as agent for bank Members. However, such an interpretation would be inconsistent with prior NYDFS guidance. Furthermore, NYDFS regulations exclude from the definition of money transmitter any person that "issues or delivers a check, draft or other instrument or document for the transmission or payment of money or which evidences an obligation for the transmission or payment of money" if the check, draft, instrument or document "effects a transfer of funds between, among, or by order of banking institutions and clearinghouses, or is transferred in connection with the collection of such check, draft, instrument or document."[41] The RSN FMI would not obviously issue an instrument or document, but the exemption demonstrates that the NYDFS does not see a need for entities playing a role similar to the role contemplated by the RSN FMI, as considered in the PoC, to be registered as money transmitters. However, because the NYDFS's interpretations of the provisions have changed over time, and features of the RSN are expected to change following completion of the PoC, further analysis may be necessary to determine whether the RSN FMI, as ultimately designed, would be required to register, including communication with the NYDFS.

For New York in particular, another consideration is whether the RSN would require any of the RSN FMI or RSN Members utilizing the RSN to register with the NYDFS to conduct "virtual currency business activity" in New York under its "BitLicense" regulations.[42] Virtual currency is defined in the BitLicense regulations to include

35 If chartered as such a banking entity, the RSN FMI would likely be structured as an entity that is not a "bank" for purposes of the Bank Holding Company Act of 1956, as amended, because it would not be an FDIC-insured bank and either would not accept deposits or engage in the business of making commercial loans. See 12 U.S.C. § 1841(c)(1).

36 Policy Statement on Section 9(13) of the Federal Reserve Act relates to the authority of state member banks to engage in activities involving digital assets and may apply to transferring traditional assets using shared-ledger technology. See *Policy Statement on Section 9(13) of the Federal Reserve Act*, Dkt. No. R 1800, FR Doc 7848 (Feb. 7, 2023), available at https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20230127a2.pdf.

37 N.Y. Bank. Law § 641(1).

38 N.Y. Comp. Codes R. & Regs. tit. 3 § 406.2(a).

39 The RSN FMI would not have possession of the funds sent via the RSN at any time, because the funds would at all times be held on the books of a Member and owed to a party other than the RSN FMI. Furthermore, the tokens recording Tokenized Deposits would never pass through the RSN FMI's hands; they are never transferred out of the Partitions of the relevant institutions.

40 Furthermore, the RSN FMI would be acting as the agent of the RSN Members, including the banks, in the RSN, and could be exempt in some states as an agent of a bank (although not all states exempt agents of banks).

41 N.Y. Comp. Codes R. & Regs. tit. 3 § 406.2(k)(7).

42 Id. tit. 23 pt. 200.

"any type of digital unit that is used as a medium of exchange or a form of digitally stored value"[43] and is "broadly construed to include digital units of exchange that: have a centralized repository or administrator; are decentralized and have no centralized repository or administrator; or may be created or obtained by computing or manufacturing effort."[44] The tokens that would be used to effect transfers of the Tokenized Deposits and Tokenized Securities should not fall within this definition of "virtual currency" because they cannot be used as currency or for any purpose other than transferring deposits or securities positions and, as a result, should not constitute a store of value.[45] If, contrary to our expectation, the tokens were considered "virtual currency" by the NYDFS, then the specific "virtual currency business activity"[46] contemplated by each RSN Member that is within the jurisdiction of the NYDFS would need to be considered.

We have also surveyed a sample of other states. In general, as with New York, our expectation is that, because the RSN FMI would not receive money or issue any instruments, it should not be required to register as a money transmitter. However, there is uncertainty in some states because of the possibility that the RSN FMI could be deemed to be engaging in the business of transmitting money for purposes of those states' statutes, even without receiving money or issuing instruments, for example, if the state's statute refers to transmitting money by means such as electronic transfer.[47]

Some states, such as Washington[48] and Georgia,[49] include explicit carve-outs for payment system operators. The presence of such a carve-out bolsters the case that the RSN FMI should not be required to seek a license in Washington or Georgia, though some uncertainty remains.[50] In any event, discussions with appropriate state regulators may be advisable if the RSN's operations were to implicate a state and a clear exemption or exclusion would not be available.

New York was the first state that enacted a comprehensive virtual currency licensing regime, with Louisiana and California following. Some other states have also addressed the application of virtual currency to their money transmitter laws, either formally through amendments to their laws or informally through guidance or enforcement actions, and the status of virtual currency remains uncertain or continues to develop in many states. Applicable state virtual currency regulations would need to be considered at a later stage.

Licensure as a money transmitter is generally not as burdensome as regulation as a depository institution, as it is focused principally on consumer protection and is not prudential in nature. It would involve an additional degree of examination and oversight, as well as requirements relating to AML, capitalization, documentation and the maintenance of reserves and posting bonds, where applicable. The application of those requirements to the RSN FMI would depend on the design of the RSN as it is ultimately developed.

### Money Services Business

In addition to general Federal or state regulation, the RSN FMI would have to consider whether it would be subject to registration with FinCEN as a "money services business." FinCEN regulations[51] require MSBs to register with FinCEN, make reports, maintain records, establish KYC and AML programs, submit suspicious activity reports and comply with other requirements. The regulations identify seven categories of entities that fall within the definition

43 Although the regulation does not expressly exclude deposits recorded on an electronic ledger, we do not believe that the regulations are intended to include ordinary deposit-taking activities within the scope of activities constituting "virtual currency activities." To the extent that a bank uses a distributed ledger to conduct traditional banking activities, as contemplated by the PoC, that activity also would not appear to be within the scope of these regulations, which are directed principally at the protection of customers holding virtual currencies and who may not have the protections offered by the regulatory framework governing deposit accounts. However, we are not aware of any statement by the NYDFS confirming this conclusion.

44 N.Y. Comp. Codes R. & Regs. tit. 23 § 200.2(p).

45 The tokens recording Tokenized Deposits or Tokenized Securities also would not resemble the types of virtual currencies that are included on the NYDFS "green list" or that appear to be contemplated by the related guidance for new coins. See, e.g., NYDFS, Guidance Regarding Listing of Virtual Currencies (Nov. 15, 2023).

46 "Virtual currency business activity" includes the following activities involving New York or a New York resident: (1) receiving virtual currency for transmission or transmitting virtual currency; (2) storing, holding, or maintaining custody or control of virtual currency on behalf of others; (3) buying and selling virtual currency as a customer business; (4) performing exchange services as a customer business; or (5) controlling, administering, or issuing a virtual currency. See N.Y. Comp. Codes R. & Regs. tit. 23 § 200.2(q).

47 For example, New Jersey, Georgia, Colorado and potentially Minnesota appear to raise this concern.

48 Rev. Code Wash. § 19.230.020(9).

49 O.C.G.A. § 7-1-682(9). This provision exempts "[a]n operator of a payment system to the extent that it provides processing, clearing, or settlement services, between or among persons exempted by this Code section, in connection with wire transfers, credit card transactions, debit card transactions, stored value transactions, automated clearing-house transfers, or similar fund transfers."

50 For example, the Georgia payment system exemption applies only to operators of payment systems that provide services among persons exempted from Georgia's money transmitter statute, and the RSN could include non-bank Members that would not be exempt.

51 31 C.F.R. pt. 1022.

of MSB: dealers in foreign exchange; check cashers; issuers or sellers of traveler's checks or money orders; providers of prepaid access; money transmitters; the U.S. Postal Service; and sellers of prepaid access.[52]

As evaluated in the PoC, the RSN FMI clearly would not engage in most of the activities listed above. However, two activities that might bear further scrutiny are (1) whether the Tokenized Deposits offered by the banks participating in the RSN should be viewed as "prepaid access" and the RSN FMI's role in their issuance would cause the RSN FMI to be viewed as engaged in creating "prepaid access," and (2) whether the RSN FMI should be viewed as a "money transmitter."

Although the RSN, as considered in the PoC, would involve the issuance of tokens representing Tokenized Deposits and Tokenized Securities used in recording the ownership of bank deposits and security entitlements, those tokens would not be capable of being used except to execute transfers through the RSN.[53] If that is the case, the tokens should not be viewed as any form of "prepaid access," but instead as a method to implement changes in the ledger recording ownership of deposits or security entitlements.[54] Furthermore, the RSN FMI would not be the "issuer" of any token, would not cause the issuance of any token, and would not deliver, exchange or redeem any token; rather it would interact with the tokens solely for purposes of triggering the Members to make changes to their ledgers.

Similarly, the RSN FMI should not be viewed as a money transmitter under the first prong of the definition, because acceptance of currency, funds or other value is an essential element of the definition of money transmitter,[55] and, as noted above, the RSN FMI would not do so. There is some risk that it could be seen as an "other person engaged in the transfer of funds"; however, the fact that the RSN FMI would never have possession of any funds supports the conclusion that it would not be a money transmitter under FinCEN's definition.[56] Depending on the scope of the RSN FMI's functions in the final design of the RSN, if it is implemented, it may be exempted from the definition as a "person that only . . . provides the delivery, communication, or network access services used by a money transmitter to support money transmission services."[57]

Even if it is determined that the RSN FMI would not be subject to registration with FinCEN as an MSB, discussions with FinCEN as the RSN is developed will be important to ensure that the system does not raise unanticipated concerns under FinCEN's regulations, as discussed further in Section 9 below.

# RSN FMI as a Clearing Agency

The Exchange Act broadly regulates the conduct of intermediaries that facilitate the movement of securities in the secondary market, including entities that perform post-trade clearance and settlement functions, such as clearing agencies. In light of the involvement of securities in the use cases examined in the PoC,[58] and the role that the RSN FMI would play in recording the transfer of the associated securities positions in those use cases, this section evaluates whether the RSN FMI would meet the definition of a "clearing agency" under the Exchange Act.

52 Id. § 1010.100(ff).

53 As noted above, it is possible that an RSN Member could use tokens in the RSN that it also uses for other purposes. If that is the case, further analysis of the status of those tokens would be prudent.

54 See id. § 1010.100(ww) ("Prepaid access" means "[a]ccess to funds or the value of funds that have been paid in advance and can be retrieved or transferred at some point in the future through an electronic device or vehicle, such as a card, code, electronic serial number, mobile identification number, or personal identification number.").

55 Id. § 1010.100(ff)(5)(i)(A) ("Money transmitter" means a "person that provides money transmission services. The term 'money transmission services' means the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means. 'Any means' includes, but is not limited to, through a financial agency or institution; a Federal Reserve Bank or other facility of one or more Federal Reserve Banks, the Board of Governors of the Federal Reserve System, or both; an electronic funds transfer network; or an informal value transfer system").

56 Id. § 1010.100(ff)(5)(i)(B). There is an exemption from the definition of "money transmitter" for any person that "[o]perates a clearance and settlement system or otherwise acts as an intermediary solely between BSA regulated institutions. This includes but is not limited to the Fedwire system, electronic funds transfer networks, certain registered clearing agencies regulated by the SEC, and derivatives clearing organizations, or other clearinghouse arrangements established by a financial agency or institution." Id. § 1010.100(ff)(5)(ii)(C). This exemption may not be available to the RSN FMI, given the potential involvement of entities that would not be subject to the U.S. Bank Secrecy Act (e.g., foreign Members). However, this question should be re-evaluated as the design of the RSN proceeds.

57 Id. § 1010.100(ff)(5)(ii)(A).

58 The PoC assumes the involvement of U.S. Treasury securities (in the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case and the Cross-Network Intraday Repo Settlement Use Case) and IG bonds (in the Client-to-Client IG Bond DvP Settlement Use Case). Although the Exchange Act generally treats U.S. Treasury securities as "exempted securities," they are not exempted securities for the purposes of Section 17A of the Exchange Act, which governs the regulation of clearing agencies, making the analysis below applicable to the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case and the Cross-Network Intraday Repo Settlement Use Case even though they contemplate transactions in U.S. Treasury securities. See 15 U.S.C. § 78c(a)(12)(A)(i), (B)(i).

At a high level, and as discussed at length below, there are strong arguments that the RSN FMI, as envisioned, would not be considered a "clearing agency" because its functions would be more limited than the functions of other entities that the SEC has found to fall within that definition. However, the SEC would likely take the position that the RSN FMI would be a "clearing agency" due to the broad statutory definition and the manner in which the SEC interprets the definition to align with its view of the policy objective of Section 17A(a)(1) of the Exchange Act, which is that the SEC regulate any clearing and settlement service providers who may significantly impact the national clearing and settlement system.[59] Accordingly, this section will discuss the basis on which the SEC could determine that the RSN FMI would be a "clearing agency," the implications of clearing agency registration, and potential forms of relief from clearing agency registration and regulatory requirements.

## Clearing Agency Analysis

Section 3(a)(23) of the Exchange Act defines "clearing agency," in relevant part, as "any person . . . who provides facilities for comparison of data respecting the terms of settlement of securities transactions" and "any person, such as a securities depository, who . . . otherwise permits or facilitates the settlement of securities transactions . . . without physical delivery of securities certificates."[60] The SEC interprets the clearing agency definition broadly to capture entities based on their potential impact to the financial system.[61] Section 17A(b)(1) of the Exchange Act and Rule 17Ab2-1 require persons who meet the definition of a clearing agency to register with the SEC as a clearing agency or obtain an exemption from registration.[62] Section 17A(b)(1) also provides the SEC with broad authority to conditionally or unconditionally exempt a person acting as a clearing agency from any provision of Section 17A of the Exchange Act or related rules, if the SEC determines that such an exemption is consistent with the public interest, the protection of investors, and the purposes of Section 17A, including the prompt and accurate clearance and settlement of securities.[63]

*Provision of "Facilities for Comparison of Data*." The RSN FMI could be viewed as meeting the definition of a "clearing agency" on the basis that the RSN FMI would "provide[] facilities for comparison of data respecting the terms of settlement of a securities transaction."[64] There are limited administrative and judicial authorities interpreting the scope of this definitional prong. However, the SEC has concluded that matching and compression services are facilities that "provide[] for the comparison of data respecting the terms of settlement of a securities transaction" and therefore meet the definition of "clearing agency."[65] In doing so, the SEC distinguished confirmation and affirmation services from matching and compression services, explaining that confirmation and affirmation services are not required to register as clearing agencies. This section first provides background on the SEC's use of the term "matching" and then explains why the RSN FMI would be distinguishable from matching and compression services, and more analogous to confirmation and affirmation services, but might still nonetheless be viewed by the SEC as a clearing agency under this prong.

In the clearing agency context, the SEC uses the term "matching" to connote a defined set of functions that eliminate key steps that would otherwise be required as part of the clearance and settlement process. Although some functions of the RSN FMI could be construed as performing "matching" in the colloquial sense (*i.e.*, ensuring that trade information submitted by different parties in respect of a transaction "matches" in order to construct a proposed settlement path for settlement of the transaction), the RSN FMI would not perform functions that meet the SEC's more technical definition of "matching." The difference between "matching services," which *are* required to register as clearing agencies (or seek an exemption from registration) and "confirmation and affirmation services," which are *not* required to register as clearing agencies, is best illustrated by a comparison of the following figures, which are taken from the SEC's release addressing matching services (using The Depository Trust Company ("DTC") as an example):[66]

59 See, e.g., Standards for Covered Clearing Agencies, Exchange Act Release No. 34-78961, File No. S7-03-14 (Jan. 16, 2024) at 69-70, available at https://www.sec.gov/files/rules/final/2016/34-78961.pdf (describing the "public interest" requirement of Section 17A to include whether clearing agency operations "support the stability of the broader financial system of the United States"); Clearing Agency Standards for Operation and Governance, Exchange Act Release No. 34-64017, File No. S7-08-11 (May 1, 2013) at 89-90 [hereinafter "Clearing Agency Standards Release"], available at https://www.sec.gov/files/rules/proposed/2011/34-64017.pdf (explaining that "the operation of multilateral payment, clearing or settlement activities may reduce risks for clearing participants and the broader financial system, while at the same time creating new risks that require multilateral payment, clearing or settlement activities to be well-designed and operated in a safe and sound manner" and that this is consistent with the policy of Section 17A of the Exchange Act).

60 15 U.S.C. § 78c(a)(23)(A). The RSN FMI would not qualify for any of the statutory exemptions from the definition of "clearing agency." See 15 U.S.C. § 78c(a)(23)(B) (exempting certain (1) Federal banks, (2) national securities exchanges and associations, (3) banks and broker-dealers, (4) life insurance companies, (5) registered open-end investment companies, and (6) transfer agents acting on behalf of an issuer).

61 See note 59, supra, and accompanying text.

62 15 U.S.C. § 78q-1(b)(1); 12 C.F.R. § 240.17Ab2-1.

63 15 U.S.C. § 78q-1(b)(1).

64 Id. § 78c(a)(23)(A).

65 See Confirmation and Affirmation of Securities Trades; Matching, Exchange Act Release No. 34-39829, 63 Fed. Reg. 17,943, 17,946 (Apr. 13, 1998) [hereinafter "Matching Release"]; Clearing Agency Standards Release, at 89-90.

66 See Matching Release, at 17,944-45.

**Figure 1: Confirmation/Affirmation Process Flow**

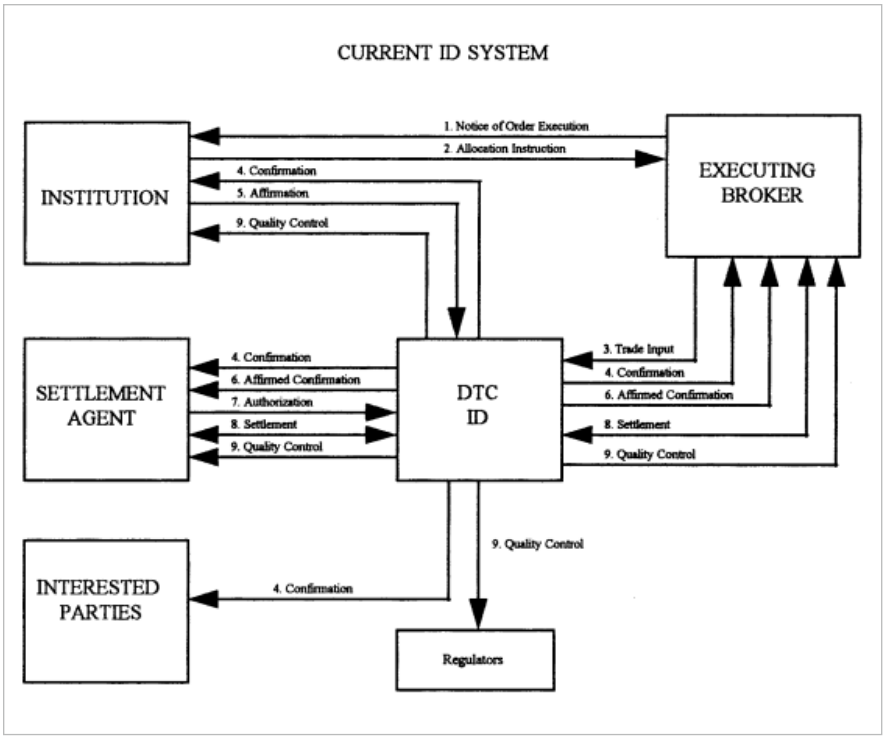



**Figure 2: Matching Service Process Flow**

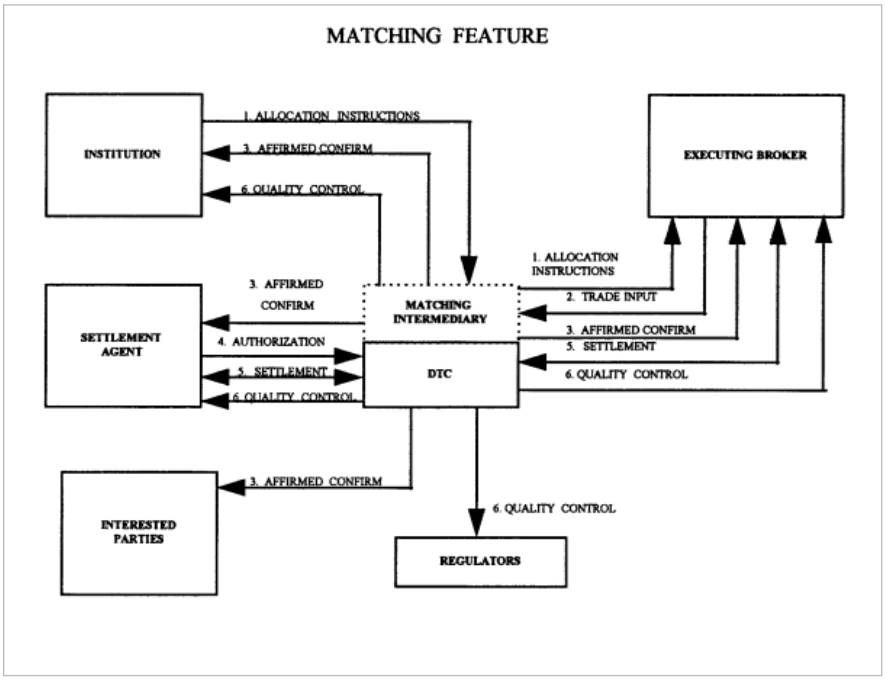


Figure 1 depicts the traditional confirmation/affirmation process of a customer-side settlement, and Figure 2 depicts the components of customer-side settlement through a matching intermediary. The key distinction between the processes is that the matching intermediary eliminates Steps 4-5 of the confirmation/affirmation process depicted in Figure 1, where DTC ID produces a confirmation (Step 4) for the executing broker's counterparty to review and affirm (Step 5). Instead, the matching intermediary in Figure 2 "eliminates [the] separate affirmation step"[67] by sending its own affirmed confirmation to the executing broker, the executing broker's counterparty, the settlement agent and other interested parties without first receiving an affirmation from the institution. The result is that the matching intermediary produces "an affirmed confirmation that is used in settling"[68] the securities transaction, and both counterparties rely on the matching intermediary to provide accurate confirmed affirmations without the chance to review prior to settlement.

Against this background, the RSN FMI would be unlikely to be considered a "matching service" because it would not provide "an affirmed confirmation that is used in settling" a securities transaction.[69] The SEC has defined "matching" as "the process by which an intermediary reconciles trade information from a broker-dealer and its customer to generate an affirmed confirmation which is then used in effecting settlement of a trade"[70] and has stated that an intermediary that "captures trade information from a buyer and a seller of securities and performs an independent reconciliation or matching of that information"[71] is a clearing agency within the meaning of Section 3(a)(23), and thus is subject to the Exchange Act's registration requirements unless granted an exemption by the SEC.[72]

In each use case evaluated in the PoC that contemplates a securities transaction, the RSN Members, not the RSN FMI, would provide the confirmation used in settling the transaction. As a result, the RSN FMI's role would be limited to converting transfer request messages[73] into a proposal, which would then be confirmed by RSN Members' responses,[74] and collecting responses in order to create a notification effecting and reflecting balance changes as a result of the transaction. After receiving the proposal, RSN Members, not the RSN FMI, would provide confirmations via their response to the proposal. The RSN FMI would then verify the digital signatures included in the responses, and create a notification triggering the point of settlement finality.

The reason that the SEC views matching services as "critical to maintaining a sound clearance and settlement system" is because they are systems that reduce errors in the settlement process and reduce the amount of settlement time.[75] Although the RSN FMI could reduce both errors and settlement time, the RSN FMI's limited functions would distinguish it from a matching service provider in this context. Unlike a matching service provider's role in issuing affirmed transactions, which "eliminates a separate affirmation step that would allow the detection of errors that could delay settlement or cause the trade to fail,"[76] RSN Members would have the opportunity (and responsibility) to detect errors in the RSN FMI proposal (if any) and reject the proposal. As a result, the limited role of the RSN FMI (e.g., creating proposals, verifying signatures and issuing notifications) should not be considered by the SEC as "critical to maintaining a sound clearance and settlement system."[77]

In this regard, the RSN FMI would be more analogous to a "confirmation and affirmation service," which, unlike a matching service, is not required to register as a clearing agency.[78] Confirmation/affirmation services only exchange messages between a broker-dealer and its institutional customer. The broker-dealer and its institutional customer compare the trade information contained in those messages, and the institution itself issues the affirmed confirmation.[79] As described, the RSN FMI's role would be limited to converting transfer request messages into a proposal, which

67 Matching Release, at 17,946.

68 Id.

69 Id.

70 Id. at 17,943.

71 Id. at 17,946.

72 Id. at 17,943.

73 The RSN FMI would convert transfer requests received from either the CCP (Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case), The Swift interlinking prototype (Cross-Network Intraday Repo Settlement Use Case) or transaction participants (Client-to-Client IG Bond DvP Settlement Use Case) depending on the use case.

74 Transfer requests would be submitted by the transaction participants (Client-to-Client IG Bond DvP Settlement Use Case), CCP (Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case) and The Swift interlinking prototype (Cross-Network Intraday Repo Settlement Use Case), respectively.

75 Matching Release, at 17,946.

76 Id.

77 Id.

78 Matching Release, at 17,946 n.21.

79 Id.

would then be confirmed by RSN Members via their responses to the proposal. Like confirmation/affirmation services, the RSN FMI would not be providing an "independent comparison[] that result[s] in the issuance of legally binding matched terms" and, accordingly, should not "generally fall within the definition of clearing agency."[80]

The RSN FMI should also not be considered a "compression service," and therefore a "clearing agency."[81] Compression services generally seek to reduce the number and size of trades in a portfolio by combining or offsetting trades. The SEC has described one type of compression service (a "Tear Up" service) as a system that seeks to "eliminate unnecessary or duplicative trades from the market while maintaining a market participant's overall exposure or risk in the market."[82] These systems function by (1) allowing users to send all transactions they are willing to terminate, (2) matching submitted transactions, (3) issuing proposed terminations to participants and (4) upon acceptance of the proposal (at which point transactions are considered binding), relaying completed files to third-party matching services for matching, whereupon the transactions are terminated in bulk and participants exchange payments outside of the service.[83]

The RSN FMI likely would not be considered a compression service because the PoC assumes that pre-trade matching operations would take place outside of the RSN, using existing matching and compression vendors, prior to submitting instructions to the RSN FMI for the creation of a settlement path and transaction proposal. As a result, the RSN FMI would not engage in functions that offset or combine trades, and any netting of trades to reduce the number or size of trades in a specific portfolio would occur outside of the RSN, before transaction information is relayed to the RSN FMI. Stated differently, a compression service in some sense takes part in the transaction execution process by proposing and then effecting terminations; in contrast, here any transaction executions would take place without the involvement of the RSN FMI.

Despite these distinctions, the SEC may nonetheless view the RSN FMI as meeting the definition of a clearing agency by virtue of "provid[ing] facilities for comparison of data respecting the terms of settlement of a securities transaction." The SEC interprets this prong of the clearing agency definition broadly to capture any entity acting as a critical link in the post-trade settlement process. Prior SEC releases emphasize that entities involved in the post-trade confirmation and settlement process, even in limited capacities, (1) have the potential to "significant[ly] impact" the national clearance and settlement system and (2) that, without regulatory authority over such entities, the SEC's ability to guard against "widespread systemic failure" would be "limited[.]"[84] Especially considering the current SEC posture towards blockchain technology, as well as the prospect that the RSN FMI would be involved in the settlement of transactions encompassing entire segments of the securities markets as a central utility, not one of many possible vendors, the SEC is more likely to view the RSN FMI as implicating these concerns than an ordinary confirmation/affirmation vendor, though this may change in the future, depending on the SEC's policy priorities.

"*Otherwise Permits or Facilitates the Settlement of Securities Transactions*." Another possible avenue that the SEC could consider would be to view the RSN FMI as meeting the definition of a clearing agency on the basis that it would "otherwise permit[] or facilitate[] the settlement of securities transactions . . . without physical delivery of securities certificates."[85] This prong of the clearing agency definition defines the types of "central securities depositories" that are required to register as clearing agencies. The RSN FMI should not be considered a CSD, and the PoC itself assumes the involvement of a separately registered CSD that would maintain its own Partition in the RSN (in the Client-to-Client IG Bond DvP Settlement Use Case). The SEC is likely to take an expansive view of this language to include an entity providing critical post trade-trade settlement services similar to the RSN FMI as a result of the policy behind Section 17A.[86] There are also strong arguments as to why the RSN FMI would fall outside the definition—in particular, because it would not act as a custodian. However, the definition is broader than custodians. The definition captures anyone who "otherwise permits or facilitates the settlement of securities transactions . . . without physical delivery of securities certificates."[87]

### Implications of Clearing Agency Registration

Section 17A of the Exchange Act reflects Congress's views that "the prompt and accurate clearance and settlement of securities transactions, including the transfer of record ownership and the safeguarding of securities and funds related thereto, are necessary for the protection of investors and persons facilitating transactions by and acting on behalf of investors."[88] Accordingly, Section 17A directs the SEC to facilitate the establishment of a national system for the prompt and accurate clearance and settlement of securities

80 Clearing Agency Standards Release, at 89.

81 Id. at 90.

82 Id. at 89 n.106.

83 Id. at 89-90.

84 Matching Release, at 17,946-47.

85 15 U.S.C. § 78c(a)(23)(A).

86 See note 59, supra, and accompanying text.

87 15 U.S.C. § 78c(a)(23)(A).

88 Id. § 78q-1(a)(1)(A).

transactions.[89] Pursuant to this mandate, the SEC has adopted rules governing the registration, conduct and operations of clearing agencies, among others.

If the RSN FMI were considered to be a "clearing agency" within the meaning of the Exchange Act, the RSN FMI would be subject to a variety of SEC regulations governing its conduct and operations. As a threshold matter, the RSN FMI would have to either register with the SEC as a clearing agency pursuant to Section 17A and comply with the Exchange Act and various related SEC regulations or seek an exemption from registration, which would likely be conditioned on complying with obligations similar to those applicable to a registrant. If the RSN FMI were to register as a clearing agency, it would meet the definition of a self-regulatory organization ("SRO")[90] and become subject to, among other obligations, the rule filing process outlined in Section 19(b) of the Exchange Act.[91] Under that process, an SRO is required to file with the SEC any proposed rule or proposed change in its rules, including additions or deletions from its rules.[92] The concept of a "rule" is defined broadly and encompasses policies and procedures.[93] As an SRO, the RSN would generally be required to receive approval from the SEC in order to amend the RSN Rulebook or otherwise update policies and procedures governing RSN Members.[94]

As a registered clearing agency and SRO, the RSN FMI would also be subject to Regulation Systems Compliance and Integrity ("Reg SCI") and would be considered an "SCI Entity."[95] The RSN FMI would in such case be required to maintain policies and procedures designed to ensure its systems maintain operational capacity, file quarterly reports with the SEC and maintain certain records, among other requirements.[96] Even if the RSN FMI were not considered a clearing agency, it could still be indirectly subject to Reg SCI if it would provide services to an SCI Entity, such as the Fixed Income Clearing Corporation ("FICC").[97]

### Potential Relief from Clearing Agency Registration

If the RSN FMI would meet the definition of a "clearing agency," exemptive relief from the SEC or no-action relief from the Staff could potentially be available. As a general matter, and applicable to both a request for a statutory exemption and no-action relief, the involvement of a CCP (in the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case); a CSD (in the Client-to-Client IG Bond DvP Settlement Use Case); and a Federal Reserve Bank (in the Cross-Network Intraday Repo Settlement Use Case) would be factors that the Staff would consider when evaluating whether to make a recommendation to the SEC to exempt the RSN FMI from registration or to issue no-action relief. Below is an analysis of both exemptive relief and no-action relief.

*Exemptive Relief*. The SEC has broad authority to exempt entities from clearing agency registration under Exchange Act Section 17A(b)(1) and Rule 17Ab2-1 if it determines that such exemption is consistent with the public interest, the protection of investors and the purposes of Section 17A, including the prompt and accurate clearance and settlement of securities transactions and the safeguarding of securities and funds.[98]

89 See id. § 78q-1(a)(2)(A)(i).

90 See id. § 78c(a)(26) (defining "self-regulatory organization" as "any national securities exchange, registered securities association, or registered clearing agency").

91 See id. § 78s; see also 17 C.F.R. § 240.19b-4 (describing which policies, practices and interpretations of an SRO will be deemed a "rule change" and outlining procedures for submitting proposed rule changes, including formatting and timing requirements).

92 See 15 U.S.C. § 78s(b)(1); 17 C.F.R. § 240.19b-4; see also Div. of Trading & Mkts., *Staff Report on the Regulation of Clearing Agencies* at 9 (Oct. 1, 2020), available at https://www.sec.gov/files/regulation-clearing-agencies-100120.pdf.

93 See 17 C.F.R. § 240.19b-4(a)(6).

94 Section 19(b)(1) of the Exchange Act generally requires an SRO to file any proposed rule change with the SEC. See 15 U.S.C. § 78s(b)(1). However, Section 19(b)(3)(A) provides that certain rule changes relating to (1) the "meaning, administration, or enforcement of an existing rule," (2) establishing or changing dues or fees, or (3) administration of the SRO may take effect without SEC approval. See id. § 78s(b)(3)(A).

95 See 17 C.F.R. § 242.1000 (defining "SCI Entity").

96 See generally id. § 242.1000 et seq.

97 The Staff of the Division of Trading and Markets has stated its view that SCI Entities who contract with third-party service providers may, and do, enact policies and procedures concerning functions performed by third parties to facilitate compliance with Reg SCI. See *Responses to Frequently Asked Questions Concerning Regulation SCI* at 2.03 (updated Aug. 21, 2019), available at https://www.sec.gov/rules-regulations/staff-guidance/trading-markets-frequently-asked-questions/responses-frequently-asked-questions-concerning-regulation-sci.

Moreover, the SEC proposed in March 2023 to expand the scope of Reg SCI to directly require such policies. See Regulation Systems Compliance and Integrity, Exchange Act Release No. 34-97143, File No. S7-07-23, at 113, available at https://www.sec.gov/files/rules/proposed/2023/34-97143.pdf (proposing to "require each SCI entity to include in its policies and procedures required under Rule 1001(a)(1) a program to manage and oversee third-party providers that provide functionality, support or service, directly or indirectly, for its SCI systems and, for purposes of security standards, indirect SCI systems").

98 See 15 U.S.C. § 78q-1(b)(1).

The SEC has granted matching services conditional exemptions from clearing agency registration, which relieve such entities from "the full panoply of clearing agency regulation."[99] These exemptions are typically conditioned upon certain disclosure and risk management requirements, including complying with Reg SCI.[100] While the SEC may view a request for exemptive relief from the RSN FMI differently than matching services, the SEC would likely look to the following factors, which were considered in orders granting conditional exemptions to matching providers, in determining whether to grant such an exemption for the RSN FMI: (1) efficiency, (2) impact on competition, choice, and innovation, (3) systemic risk, (4) operational risk, and (5) interoperability with other market participants.[101] These factors would inform the SEC's analysis of whether an exemption would be consistent with the statutory factors outlined in Section 17A of the Exchange Act. Given that the RSN FMI's role would be more limited than that of a matching service (as discussed above), the RSN's operational benefits,[102] and the involvement of a CCP, CSD and/or a Federal Reserve Bank, there are strong arguments that would weigh in favor of exemptive relief.

*No-Action Relief.* The RSN FMI could also seek no action relief from the Staff. In 2019, the Division of Trading and Markets granted Paxos (a NYDFS-regulated limited purpose trust company and DTC participant) temporary no-action relief (the "Paxos No-Action Letter") from clearing agency registration in connection with its operation of a securities settlement system (the "Paxos Settlement Service" or "PSS").[103] The Staff conditioned Paxos's temporary relief on several conditions, including that (1) the PSS was to be operated only for 23 months, (2) no more than seven participants would be eligible to use the PSS for clearance and settlement, (3) Paxos would impose volume limits on shares per security, per counterparty pair and aggregate shares per security across all counterparty pairs, and (4) regular reporting to the Staff.[104]

Although there would be some similarities between the RSN FMI, as contemplated in the PoC, and the Paxos Settlement Service,[105] the RSN FMI would have some key distinguishing facts that the Staff may view more favorably when evaluating a request for no-action relief and could result in less onerous conditions. Most significantly, and unlike Paxos, the RSN FMI would not act as a custodial intermediary in securities transactions.

As described in the Paxos No-Action Letter, PSS participants would transfer securities to their PSS accounts and Paxos would act as an intermediary custodian by holding participants' securities through Paxos's DTC account. Upon receipt to Paxos's DTC account, Paxos would create a digitized security entitlement, which was a digital representation of the security deposited into Paxos's DTC account. Paxos would then settle and transfer security entitlements to cash and securities between the relevant participants' PSS accounts on the Paxos ledger.

In contrast, the RSN FMI would not maintain its own DTC account nor would RSN Members transfer securities to any accounts controlled by the RSN FMI. Based on this distinction, the RSN FMI could argue to the Staff that its participation in the clearance and settlement process would be limited to providing other market participants a technology layer to record securities transfers effectuated by other intermediaries (i.e., CCPs, CSDs and Federal Reserve Banks). The RSN FMI's limited, non-custodial role would eliminate the counterparty

99 See, e.g., Bloomberg STP LLC; SS&C Technologies, Inc., Order of the Commission Approving Applications for an Exemption from Registration as a Clearing Agency, Exchange Act Release No. 34-76514; File Nos. 600-33, 600-34 (Nov. 24, 2015) [hereinafter "Bloomberg & SS&C Exemptive Release"], available at https://www.sec.gov/files/rules/other/2015/34-76514.pdf; see also Matching Release, at 17,947 (discussing possible regulatory approaches permitting limited or conditional registration of matching services).

100 Rule 1000 of Reg SCI defines an SCI Entity to include an exempt clearing agency subject to the SEC's Automation Review Policies ("ARP"). See 17 C.F.R. § 242.1000. This includes entities who receive an exemption from clearing agency registration under Section 17A of the Exchange Act, and whose exemption includes conditions that relate to the ARP. Id. Such exempt entities are subject to Reg SCI in its entirety. See, e.g., Bloomberg & SS&C Exemptive Release, at 88 (describing the relationship between ARP and Reg SCI), 71 ("BSTP and SS&C, as SCI entities, will be subject to Regulation SCI.").

101 See Bloomberg & SS&C Exemptive Release, at 15, 36, 51, 66, 82.

102 See generally RSN Business Applicability Report.

103 Paxos Tr. Co., SEC Staff No-Action Letter, 2019 WL 5543753 (Oct. 28, 2019), available at https://www.sec.gov/divisions/marketreg/mr-noaction/2019/paxos-trust-company-102819-17a.pdf.

104 Id. at 3-4. The Staff also (1) limited the types of securities eligible for settlement through PSS to those securities that are publicly traded equity securities registered pursuant to Section 6 of the Securities Act of 1933 (the "Securities Act"), and Section 12 of the Exchange Act, (2) required Paxos to establish participant eligibility criteria, and (3) required Paxos to establish procedures reasonably designed to ensure compliance with the terms of the relief. See id.

105 The Paxos Settlement Service was described in the request for no-action as "a private and permissioned distributed ledger system that records changes in ownership of securities and cash resulting from settlement of securities transactions between participants of the Paxos Settlement Service. In so doing, the Paxos Settlement Service is designed to conduct simultaneous delivery versus payment settlement of securities and cash for trades submitted to the Paxos Settlement Service for clearance and settlement." See id. at 1-3.

risk present in the Paxos Settlement Service, thereby mitigating the potential for investor harm and impacts to the broader market. Based on these distinctions and potential mitigants, the Staff may view the more limited role of the RSN FMI favorably when considering a request for no-action relief, which could result in less onerous conditions to the relief as compared to those described above.

# RSN as a Designated Financial Market Utility

Title VIII of the Dodd-Frank Act and 12 C.F.R. Part 1320 give designated Federal regulators authority to supervise SIFMUs, including payment systems and clearing agencies. Under this framework, FSOC is authorized to designate SIFMUs, triggering enhanced prudential regulation by the statutorily prescribed "supervisory agency," which is typically the Federal agency with "primary jurisdiction" over the designated SIFMU.[106]

Under this framework, the SEC is the supervisory agency for designated FMUs that are registered clearing agencies.[107] SIFMUs subject to the SEC's primary jurisdiction must comply with enhanced prudential regulation, determined by whether the designated entity is a "covered clearing agency."[108] The Federal Reserve Board is the supervisory agency for SIFMUs that are not otherwise subject to the jurisdiction of the SEC, the CFTC or another appropriate Federal banking regulator.[109] SIFMUs subject to the primary jurisdiction of the Federal Reserve Board must comply with the enhanced supervisory requirements contained in the Federal Reserve Board's Regulation HH. Additionally, if a SIFMU is subject to the jurisdictional supervision of more than one agency that would be the supervisory authority with respect to the SIFMU (i.e., the SEC, CFTC, Federal Reserve Board and other Federal prudential banking regulators), then the agencies sharing jurisdiction are directed to enter into a mutual agreement as to which agency will act as the supervisory agency.[110] If no agreement can be reached, FSOC will determine which agency will serve as the supervisory agency. [111]

Accordingly, if, for the reasons discussed above, the RSN were to be designated a SIFMU by virtue of its functions as a payment system (and has *not* registered as a clearing agency under the Exchange Act or obtained a conditional exemption from registration) then the Federal Reserve Board would serve as the supervisory agency and the RSN would be subject to Regulation HH. Alternatively, if the RSN registered as a clearing agency, the SEC would serve as the supervisory agency and the applicable regulatory framework would depend on whether, as discussed below, the RSN was a "covered clearing agency." If the RSN would be subject to the jurisdiction of *both* the Federal Reserve Board and the SEC, which may be the case as the RSN would settle transactions involving both cash and securities, then those agencies would be required to enter into a mutual agreement as to which agency would act as the supervisory agency. If the agencies could not agree which agency has primary jurisdiction, FSOC would decide which agency would act as the supervisory authority. The specific supervisory agency and the applicable regulatory framework would ultimately be determined by the functions and registration status of the RSN, as implemented in a future phase, and this section is intended to provide a high-level overview of regulation applicable to a SIFMU for which the Federal Reserve Board or the SEC is the supervisory authority.

*Regulation by the Federal Reserve Board.* As discussed, the Dodd-Frank Title VIII framework applies only to payment systems that have been designated by FSOC as SIFMUs. If the RSN were designated under Title VIII and the Federal Reserve Board were the supervisory agency, then the RSN would become subject to extensive supervision and regulation by the Federal Reserve Board. Title VIII gives the Federal Reserve Board the authority to adopt regulations governing all aspects of the operation of a designated FMU (other than those for which the SEC or the CFTC is the supervisory agency), including:

- risk management policies and procedures;
- margin and collateral requirements;
- participant or counterparty default policies and procedures;
- the ability to complete timely clearing and settlement of financial transactions;
- capital and financial resource requirements for designated FMUs; and
- other areas that are necessary to promote robust risk management and safety and soundness, reduce systemic risks and support the stability of the broader financial system.[112]

106 12 U.S.C. § 5462(8)(A); 12 C.F.R. § 1320.2.

107 12 U.S.C. § 5462(8)(A)(i); 12 C.F.R. § 1320.2.

108 See 17 C.F.R. § 240.17ad-22(e) (establishing requirements for covered clearing agencies).

109 12 U.S.C. § 5462(8)(A)(iv).

110 See id. § 5462(8)(B); 12 C.F.R. § 1320.2.

111 12 U.S.C. § 5462(8)(B); 12 C.F.R. § 1320.2.

112 12 U.S.C. § 5464(c).

Although AML, CFT and sanctions are not explicitly mentioned in the statute authorizing the adoption of these standards, those matters fall within the core risk management, safety and soundness and other considerations addressed explicitly by the statute.

Pursuant to this authority, the Federal Reserve Board adopted Regulation HH, 12 C.F.R. Part 234, which is based on the Bank for International Settlements' Principles for Financial Market Infrastructure ("PFMIs").[113] The PFMIs establish standards under 24 principles addressing eight broad areas of risk, including systemic, legal, credit, liquidity, general business, custody, investment and operational risk, and Regulation HH was adopted in consideration of how those principles could be reflected in the U.S. regulatory framework for systemically important payment systems. Although for the reasons discussed above, the RSN FMI would be unlikely to become a designated FMU at the outset, and so may not be formally subject to the PFMIs, compliance with the PFMIs may be beneficial even if it is not strictly required because it may facilitate participation by some potential Members.[114]

In addition to establishing regulations governing the operations of designated FMUs, the Federal Reserve Board is required to examine the nature and scope of the operations of the designated FMU, the risks that it bears, the risks that it poses to financial institutions, critical markets or the broader financial system; the resources and capabilities of the designated FMU to monitor and control those risks; the safety and soundness of the designated FMU; and the designated FMU's compliance with Title VIII and the Federal Reserve Board's regulations and orders.[115] The Federal Reserve Board is also authorized to examine major service providers to a designated FMU.

The Federal Reserve Board may require reports or other submissions by designated FMUs. These reports may be required to the extent the Federal Reserve Board deems necessary to assess the safety and soundness of the FMU.[116]

Completing the regulatory framework, the Federal Reserve Board is given the same enforcement authority over designated FMUs under Sections 8(b) through (n) of the FDIA in the same manner and to the same extent as if the designated FMU were an insured depository institution and the Federal Reserve Board were the appropriate Federal banking agency for such insured depository institution.[117]

*Regulation by the SEC*. As discussed, if the RSN were to register as a clearing agency under the Exchange Act and be designated under Title VIII, the SEC would serve as the supervisory agency.[118] The SEC regulates clearing agencies based on the functions that they provide. Exchange Act Rule 17ad-22(e),which is consistent with the PFMIs,[119] applies to clearing agencies that meet the definition of a "covered clearing agency."[120] However, based on the analysis of the RSN FMI's potential functions as a clearing agency, contained above in this section of the Report, we believe that, if considered a clearing agency, the RSN FMI should not be a "covered clearing agency"[121] because it would not provide the services of a CCP or a CSD.[122]

113 See Financial Market Utilities, 77 Fed. Reg. 45,907, 45,909 (Aug. 2, 2012); Financial Market Utilities, 89 Fed. Reg. 18,749, 18,750 (March 15, 2024) ("[The Regulation HH standards] are based on and generally consistent with the PFMI.").

114 For example, the Federal Reserve Board's Policy on Payment System risk covers financial market infrastructures that are subject to the Board's supervisory authority, including under the BSCA. See Federal Reserve Board Policy on Payment System Risk (July 20, 2023), available at https://www.federalreserve.gov/paymentsystems/files/psr_policy.pdf. Similarly, Part 7 of the OCC's regulations permit national banks to become members of payment systems, subject to certain requirements related to safety and soundness. See 12 C.F.R. § 7.1026..

115 12 U.S.C. § 5466.

116 Id. § 5468(b)(1).

117 Id. §§ 5466(c), 5467(b).

118 It is also likely that the Staff would consider the possibility that granting the RSN a conditional exemption from clearing agency registration would likely make the Federal Reserve Board, and not the SEC, the supervisory agency for the RSN FMI if it were to be designated as a SIFMU in a request for exemptive relief. We believe this factor could resulting in the SEC seeking full clearing agency registration by the RSN FMI so as to retain the SEC's potential role as the supervisory agency under Title VIII.

119 Exchange Act Rule 17ad-22(e) was adopted in consideration of the PMFIs, consistent with the requirements of Section 805(a)(2)(A) of the Dodd-Frank Act. See 12 U.S.C. § 5464(a)(2)(A); Definition of "Covered Clearing Agency," 94 Fed. Reg. 28,853, 28,853 (May 14, 2020) (describing that "[t]he relevant international standards [under 12 U.S.C. § 5464(a)(2)(A)] for CCPs and CSDs are the *Principles for Financial Market Infrastructures*.").

120 See 17 C.F.R. § 240.17ad-22(e) (establishing requirements for covered clearing agencies); id. § 240.17ad-22(a) (defining "covered clearing agency").

121 See id. § 240.17ad-22(a).

122 See id. A CCP is defined as a clearing agency that interposes itself between the counterparties to securities transactions, acting functionally as the buyer to every seller and the seller to every buyer. A CSD is defined as a clearing agency that is a securities depository as described in Section 3(a)(23)(A) of the Act. See 15 U.S.C. § 78c(a)(23)(A); see also text accompanying footnote 60 above, which includes the definition of a "clearing agency" and in the following analysis supports the view that the RSN FMI would not provide the services of a CCP or CSD, as it would not intermediate or become party to any contract. Although we have discussed why the RSN FMI could be argued to fit within the CSD prong of Section 3(a)(23)(A), we believe the better reading of the SEC's CSD definition is to capture entities covered by subparagraph (i) of this prong, i.e., "book-entry custodians." However, if the RSN FMI were considered to provide the services of a CSD, it would be subject to Exchange Act Rule 17ad-22(e).

Instead, it is more likely that the RSN FMI would be subject to Exchange Act Rule 17ad-22(d), which applies to clearing agencies that do not meet the definition of "covered clearing agency."[123] As a result, if the RSN FMI were to register as a clearing agency, it would be required to establish, implement, maintain and enforce written policies and procedures reasonably designed to comply with Exchange Act Rule 17ad-22(d), which set minimum standards for, among other things, governance, operations, risk management, margin requirement, and credit exposure.[124] This includes establishing policies and procedures reasonably designed to, among others, (1) require participants to have sufficient financial resources to meet obligations arising from participation in a clearing agency, (2) employ money settlement arrangements that eliminate or strictly limit the clearing agency's settlement bank risk, and (3) institute collateral requirements and limits to cover the clearing agency's credit exposure to each participant.[125] Regardless of whether the RSN FMI would need to comply with 17ad-22(d) or (e), the RSN FMI likely would have rules, policies and procedures that are consistent with the PFMIs.

In addition to establishing regulations governing the operations of designated FMUs, the SEC is required to examine the nature and scope of the operations of any designated FMU, the risks that it bears, the risks that it poses to financial institutions, critical markets or the broader financial system; the resources and capabilities of the designated FMU to monitor and control those risks; the safety and soundness of the designated FMU; and the designated FMU's compliance with Title VIII and the regulations and orders prescribed under Title VIII.[126] As also discussed above, the SEC would also have the authority to indirectly regulate the RSN FMI's service providers under Reg SCI, and has proposed a rule that would directly subject such providers to Reg SCI.

This extensive framework would apply to the RSN, if it were designated as a SIFMU by the FSOC pursuant to Title VIII, and provides a suitable framework for the RSN to structure its operations around, even before it is designated. In practice, whether Regulation HH, Exchange Act Rule 17Ad-22(d) or Exchange Act Rule 17Ad-22(e) would apply to the RSN would ultimately depend on the functionality of the RSN as implemented in a future phase, the RSN FMI's potential registration as a clearing agency and, possibly, the mutual agreement of the Federal Reserve Board and the SEC as to which regulator would serve as the RSN's supervisory agency.

123 See 17 C.F.R. § 240.17ad-22(d) (establishing requirements for registered clearing agencies that are not covered clearing agencies). Exchange Act Rule 17ad-22 also defines "designated clearing agencies" as registered clearing agencies that are designated as systemically important by the FSOC. See id. § 240.17ad-22(a). Designated clearing agencies are also subject to SEC examination. See 12 U.S.C. § 5466.

124 See generally 17 C.F.R. § 240.17ad-22.

125 See id. § 240.17ad-22(d).

126 12 U.S.C. § 5466.

# Bank Members

## Permissibility

RSN Members would be subject to different primary regulatory regimes, but many of the likely RSN Member commercial banks would be U.S. banking entities supervised by the U.S. Federal banking regulators. One question that would be applicable to these banking entities, but not necessarily to other RSN Members, is whether participation in the proposed RSN would be permissible, in particular, for national banks under the National Bank Act[127] and related interpretations from the Office of the Comptroller of the Currency ("OCC"), and for state member banks under Section 9(13) of the Federal Reserve Act and related interpretations from the Federal Reserve Board.[128]

A national bank's authority is determined by the National Bank Act, as interpreted by the OCC. State-chartered banks, while potentially possessing broader powers, are subject to federal limitations when such powers exceed those of national banks. Insured state non-member banks, as governed by Section 24 of the FDIA, are generally restricted to activities permissible for national banks, unless the FDIC determines that a specific activity presents minimal risk and the bank is adequately capitalized. Similarly, state member banks, under Section 9(13) of the Federal Reserve Act, are subject to the Federal Reserve Board's authority to limit their activities to those of national banks. This Report addresses first the question of whether a national bank is permitted to participate in the proposed RSN.

As a general matter, a national bank may "perform, provide, or deliver through electronic means and facilities any activity, function, product, or service that it is physically or otherwise authorized to perform, provide, or deliver" (the "transparency doctrine"), subject to applicable OCC guidance.[129] Payment-related activities, such as transferring customer funds between accounts at different banks, are considered activities within the business of banking.[130] Similarly, providing custody for securities for customers, making securities transfers on behalf of customers,[131] and purchasing certain types of investment securities, such as U.S. Treasury securities, for a bank's own account are also considered within the business of banking.[132] As a result, transferring customer funds or securities between accounts at different banks using tokenized commercial bank deposits or Tokenized Securities through the RSN should fall within the transparency doctrine, subject to the considerations discussed below. The OCC has not issued guidance with respect to tokens representing deposits or positions in securities specifically, but it has issued an interpretive letter relating to stablecoins and "certain payment-related activities that involve the use of new technologies, including the use of independent node verification networks (INVNs or networks) and stablecoins, to engage in and facilitate payment activities."[133] These letters acknowledge both the "transparency

127 Id. § 1 et seq.

128 This analysis is limited to permissibility of the new tokenized activities under the National Bank Act and Section 9(13) of the Federal Reserve Act. There may be other approvals that specific members might be required to comply with, as with any other payment or securities settlement system, e.g., Part 7 of the OCC's rules, which are beyond the scope of our review.

129 12 C.F.R. § 7.5002(a).

130 12 U.S.C. § 24(Seventh); see also OCC Conditional Approval 220 at 7 (Dec. 1996), available at https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/1996/ca220.pdf ("Banks are the most important institutional participants in the nation's payments system. They deal with cash, issue, process, clear and settle checks and similar monetary instruments, administer credit card and debit card programs for consumers and merchants, and transfer funds electronically in a variety of situations and circumstances."); OCC Interpretive Letter 1174 n.17 (Jan. 4, 2021), available at https://www.occ.gov/news-issuances/news-releases/2021/nr-occ-2021-2a.pdf.

131 See generally OCC, *Activities Permissible for National Banks and Federal Savings Associations, Cumulative* (Oct. 2017), available at https://www.occ.gov/publications-and-resources/publications/banker-education/files/pub-activities-permissible-for-nat-banks-fed-saving.pdf.

132 12 U.S.C. § 24(Seventh); see also OCC Comptroller's Handbook, Investment Securities at 2 (Mar. 1990) ("For its own account, a bank may purchase Type I securities, which are obligations of the U.S. government or its agencies and general obligations of states and political subdivisions (see 12 U.S.C. § 24(7)), subject to no limitations, other than the exercise of prudent banking judgment."), available at https://www.occ.treas.gov/publications-and-resources/publications/comptrollers-handbook/files/investment-securities/pub-ch-investment-securities.pdf.

133 OCC Interpretive Letter 1174; see also OCC Interpretive Letter 1172 (Sept. 21, 2020), available at https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1172.pdf; OCC Interpretive Letter 1179 (Nov. 18, 2021), available at https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2021/int1179.pdf. The Federal Reserve Board also issued a supervisory letter indicating that it views the term "dollar tokens" as having the same meaning as the term "stablecoin" for purposes of OCC's Interpretive Letter 1174. See Federal Reserve Board, SR 23-8 / CA 23-5: Supervisory Nonobjection Process for State Member Banks Seeking to Engage in Certain Activities Involving Dollar Tokens (Aug. 8, 2023), available at https://www.federalreserve.gov/supervisionreg/srletters/SR2308.htm.

doctrine"[134] and that the use of shared ledger technology and cryptographic techniques to conduct traditional banking services fall within the scope of this doctrine.[135]

The specific payment activities required of banks that would be RSN Members, as contemplated by the PoC—namely, the issuance of tokenized commercial bank deposits and Tokenized Securities and the use of the RSN to transfer deposited funds and securities positions—are not contemplated by these interpretive letters. However, in OCC Interpretive Letter 1179, the OCC stated that "a bank should notify its supervisory office, in writing, of its intention to engage in *any of the activities addressed in the interpretive letters*" and wait to receive written notice of non-objection before commencing the activity."[136]

On its face, OCC Interpretive Letter 1179 applies only to those activities covered by OCC Interpretive Letters 1172 and 1174, which relate to "stablecoins" and to "independent node verification networks (INVNs or networks)" (and to the activities covered in the prior OCC Interpretive Letter 1170). Accordingly, it may be possible to argue that OCC Interpretive Letter 1179 does not apply to the activities contemplated by the PoC, as the activities conducted do not fall within the specific terms of the interpretive letters. For example, none of the OCC interpretive letters specifically defines the term stablecoin,[137] other than noting that stablecoins may be backed by reserves (including funds on deposit or assets held in custody by a bank) or utilize an algorithmic mechanism to maintain a stable value. Importantly, the Tokenized Deposits do not represent instruments backed by a reserve or that depend on an algorithm to maintain their stable value, though the OCC's interpretation of these factors remains unsettled and would likely require OCC-regulated institutions to seek to engage proactively with their OCC counterparts prior to participating in the RSN.

In addition, it may be argued that a bank's interaction with, and use of, the RSN Ledger would not constitute an activity within the scope of the "INVN" activities contemplated in OCC Letter 1174.[138] However, we understand that the OCC has interpreted the letters broadly, and in the current regulatory environment, we anticipate that the OCC may interpret the strong and repeated warnings that "a proposed activity is not legally permissible if the bank lacks the capacity to conduct the activity in a safe and sound manner"[139] to reach the conclusion that making a showing of how the activities are conducted in a safe and sound manner will be required before a bank may engage in any "novel" activity, particularly any activity involving shared ledgers.

As noted above, the Federal Reserve Board has adopted a similar policy statement[140] regarding the application of Section 9(13) of the Federal Reserve Act to the activities of state member banks in relation to "crypto-assets" and has also issued subsequent supervisory letters. The Federal Reserve Board's policy statement—like OCC Interpretive Letter 1174—focuses on the use of "open, public, and/or decentralized networks" by a state member bank, and acknowledges that the statement would not apply to "assets to the extent they are more appropriately categorized within a recognized, traditional asset class."[141] However, in more recent supervisory letters, the Federal Reserve Board has indicated that prior notice would be required by a state member bank, and justifies that conclusion by referring to its understanding that the OCC would require the same notice and non-objection process for a national bank before the bank may issue tokens representing deposits. In addition, in August 2023, the Federal Reserve Board created a Novel Activities Supervision Program "to enhance the supervision of novel activities conducted by banking organizations supervised by the Federal Reserve."[142] The release announcing the Novel Activities Program notes that it will focus on novel activities related to, among other things, "distributed ledger technology . . . and complex, technology-driven partnerships with non-banks to deliver financial services to customers."[143] The examples of activities subject to enhanced Federal Reserve Board supervision include activities that are likely to be viewed as similar to the RSN, specifically

134 See, e.g., OCC Interpretive Letter 1179, at 2 n.5.

135 See, e.g., id. at 2 ("In Interpretive Letter 1170, the OCC found that . . . providing cryptocurrency custody services is *a permissible form of a traditional banking activity that banks are authorized to perform via electronic means*.") (emphasis added); id. at 3 ("[T]he OCC found that using independent node verification networks, such as distributed ledgers, to facilitate payments transactions for customers represents *a new means of performing banks' permissible payments functions*") (emphasis added).

136 Id. at 1 (emphasis added).

137 However, as noted above, the Federal Reserve Board has indicated that it believes that "dollar tokens" fall within the meaning of the term "stablecoin" as used in the OCC letters.

138 However, we note that the PoC focused on the features of the RSN concept rather than the optimal technology to support it, and it is possible that a future RSN will choose to utilize different technology that will require further analysis on this point.

139 OCC Interpretive Letter 1179, at 3.

140 Federal Reserve Policy Statement on Section 9(13) of the Federal Reserve Act (Jan. 27, 2023), available at https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20230127a2.pdf.

141 Id. at 1 n.2.

142 Federal Reserve Board, SR 23-7: Creation of Novel Activities Supervision Program (Aug. 8, 2023), available at https://www.federalreserve.gov/supervisionreg/srletters/SR2307.htm.

143 Id.

calling out "projects that use [distributed ledger technology] with the potential for significant impact on the financial system."[144] In August 2023, the Federal Reserve Board issued a second supervisory letter specifically establishing a supervisory non-objection process for state member banks seeking to engage in certain activities involving dollar tokens.[145] This letter specifically mentions both OCC Interpretive Letter 1174 and the Federal Reserve Board's policy statement under Section 9(13) and notes that a non-objection process is required for a state member bank to engage in activities permitted for national banks under OCC Interpretive Letter 1174, which it lists as "including issuing, holding or transacting in dollar tokens to facilitate payments."[146]

The FDIC has not addressed the process applicable to activities involving digital assets to the same level of detail as the OCC and the Federal Reserve Board. However, it has issued a letter to insured state non-member banks stating that an insured state non-member bank must give prior notice to the FDIC before engaging in crypto-related activities in order to permit the FDIC to "assess the safety and soundness, consumer protection, and financial stability implications of such activities."[147] This letter defines "crypto-related activities" as "any digital asset implemented using cryptographic techniques," and specifically includes "participating in blockchain- and distributed ledger-based settlement or payment systems, including performing node functions." The letter identifies the principal risks that the FDIC has identified with respect to such activities, and describes that the FDIC will provide "relevant supervisory feedback" to relevant bank "in a timely manner." The letter expressly states that it "does not address the permissibility of any specific crypto-related activity" under Section 24 or other provisions of the FDIA.

Based on the OCC's and Federal Reserve Board's guidance and the analysis above, we believe that both national banks and state member banks likely would be required to deliver prior notice to, and receive a non-objection from, their primary federal regulators to become Members of an operational RSN. Furthermore, because we believe the activity is permissible for national banks, we believe that Section 24 of the FDIA should pose no impediment to state non-member banks. Although we believe that participation in the RSN as contemplated in the PoC should be permissible for such banks, certain banks may have had in the past, or may be currently engaged in, conversations with their primary Federal banking regulators about the permissibility of similar activities that such banks may be currently undertaking or considering, which may affect the analysis with respect to such banks. In any event, engagement with regulators would be needed prior to the creation of the RSN, and this engagement would likely include providing prior notice to the appropriate Federal banking regulators.

### Money Transmission

In the absence of an exemption, the activities of banks in making payments, including as RSN Members, might otherwise qualify as money transmission.[148] However, even if this were true, banks are generally exempt from both FinCEN requirements to register as an MSB and from state law money transmitter licensure requirements. These exemptions are based on the preemptive effect of the National Bank Act and exist in deference to the regulatory framework to which these entities are already subject.[149] As an example, Section 641(1) of the New York Banking Law, which contains the general requirement to be licensed as a money transmitter to conduct money transmission, provides that nothing in that section would apply to a variety of forms of banks. Similarly, FinCEN's definition states that "the term 'money services business' shall not include: a bank or foreign bank."[150] Accordingly, we would not expect any RSN Members that are banks to be required to register under either regime.[151]

144 Id.

145 Federal Reserve Board, SR 23-8/CA 23-5: Supervisory Nonobjection Process for State Member Banks Seeking to Engage in Certain Activities Involving Dollar Tokens (Aug. 8, 2023), available at https://www.federalreserve.gov/supervisionreg/srletters/SR2308.htm.

146 Id. The Federal Reserve Board's policy statement and supervisory letters are not applicable to national banks, but they support the conclusion that a national bank must provide prior notice to the OCC before engaging in at least some of the activities contemplated in the PoC, particularly given the coordinated approach that the Federal regulators have taken to these issues.

147 See, e.g., FDIC, Notification of Engaging in Crypto-Related Activism (Apr. 7, 2022), available at https://www.fdic.gov/news/financial-institution-letters/2022/fil22016.html#letter.

148 See "RSN FMI as a Payment System" in this section above for an analysis of whether the RSN FMI would be required to register as a money transmitter under state law or a MSB under FinCEN's regulations.

149 See 12 U.S.C. § 25b(b)(1); see also OCC Interpretive Letter No. 1167, at 5 (June, 2020) ("Because licensing requirements are preempted as impermissible limitations or preconditions on a national bank's exercise of fiduciary powers, the Bank is not required to obtain a money transmitter state license or to satisfy a state law exemption to the licensing requirement."), available at https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1167.pdf

150 31 C.F.R. § 1010.100(ff)(8)(i). The FinCEN regulations also note that the term "money transmission" does not include a person that only "[a]ccepts and transmits funds only integral to the sale of goods or the provision of services, other than money transmission services, by the person who is accepting and transmitting the funds." Id. § 1010.100(ff)(5)(F).

151 If the Tokenized Deposits were to be considered virtual currency under the BitLicense regulations, banks would be the Members most likely to be considered engaging in "virtual currency business activity." This Section 3 provides above further analysis related to potential virtual currency business activity.

# Broker-Dealers

In connection with the IG Bond DvP Settlement Use Case, the RSN Members would include U.S.-registered broker-dealers that have Partitions, which raises a similar question of whether the broker-dealers' activities might qualify as money transmission. However, in many cases, it is likely that broker-dealers settling securities transactions would fall under an exception to money transmitter registration requirements.[152] For example, regulations promulgated under the New York Banking Law state that "no person who issues or delivers a check, draft or other instrument or document for the transmission or payment of money or which evidences an obligation for the transmission or payment of money, shall be deemed to have issued or sold such check, draft, instrument or document [under the money transmitter laws] if [it]... evidences an obligation arising out of a letter of credit, borrowing or similar type of financing or arising out of the purchase or sale of securities."[153] Similarly, FinCEN's definition of "money service business" does not include "a person registered with, and functionally regulated or examined by, the SEC[.]"[154]

### FINRA Rules Related to Changes in Business Operations and Activities

As described below in Section 8, the RSN Members may include broker-dealers supervised by the SEC and FINRA. One question that would be applicable to these broker-dealer entities, but not necessarily to other RSN Members, is whether participation in the proposed RSN would be a "material change in business operations" that would require the broker-dealer RSN Member to file an application for approval for a material change with FINRA.[155] Another question is whether such Members would be required to file notice with their FINRA risk monitoring analyst for participating in digital asset-related activities.[156]

Subject to a safe harbor not applicable here,[157] a "material change in business operations" is defined to include (1) removing or modifying a FINRA membership agreement restriction,[158] (2) market making, underwriting or acting as a dealer for the first time[159] and/or (3) adding business activities that require a higher minimum net capital under Exchange Act Rule 15c3-1.[160] This definition is non-exclusive, and FINRA has stated that "all other expansions . . . are to be evaluated on a facts and circumstances, case-by-case basis."[161]

We do not anticipate that participation in the RSN, as contemplated, would require broker-dealer RSN Members to file notice of a material change in business operations under FINRA Rule 1017 or engage in a materiality consultation with FINRA. This conclusion is based on the assumption that broker-dealer RSN Members would already engage in trading, clearing and settlement activities related to the types of securities contemplated in the PoC (i.e., U.S. Treasury securities and IG bonds) prior to becoming RSN Members, that nothing in their FINRA membership agreements precludes the use of distributed ledger or blockchain technology,[162] and that these Members would conform to the assumptions identified in Section 7.[163]

152 See FinCEN, Application of the Definition of Money Transmitter to Brokers and Dealers in Currency and other Commodities, FIN-2008-G008, Sept. 10, 2008, available at https://www.fincen.gov/sites/default/files/guidance/fin-2008-g008.pdf.

153 N.Y. Comp. Codes R. & Regs. tit. 3 § 406.2(k)(5).

154 31 C.F.R. § 1010.100(ff)(8)(ii).

155 See FINRA Rule 1017(a)(5).

156 See FINRA, *FINRA Continues to Encourage Firms to Notify FINRA if They Engage in Activities Related to Digital Assets*, Regulatory Notice 21-25 at 1 (July 8, 2021), available at https://www.finra.org/sites/default/files/2021-07/Regulatory-Notice-21-25.pdf.

157 See FINRA IM-1011-1 (providing a limited safe harbor, under certain conditions, for increasing the number of associated persons involved in sales, increasing the number of offices and increasing the number of markets made).

158 See FINRA Rule 1011(m)(1).

159 See FINRA Rule 1011(m)(2).

160 See FINRA Rule 1011(m)(3); NASD, *SEC Approves Amendments to NASD Membership Rules*, Notice to Members 00-73 at 568-69 (Oct. 10, 2000) ("[Material change in business operations] is defined to include, but is not limited to, removing or modifying a membership agreement restriction; market making, underwriting, or acting as a dealer for the first time; or adding business activities that require a higher minimum net capital."), available at https://www.finra.org/sites/default/files/NoticeDocument/p003977.pdf.

161 NASD, *SEC Approves Amendments to NASD Membership Rules*, Notice to Members 00-73 (Oct. 10, 2000) at 569.

162 RSN Members should review their specific membership agreements prior to joining the RSN.

163 Section 7 below identifies four assumptions in concluding that participation in the PoC would not change or have an effect on RSN Members' compliance with Exchange Act Rule 15c3-3 or the Regulation T and FINRA Rule 4210 margin requirements, including that: (1) RSN Members would follow their normal processes for reducing customer fully paid and excess margin securities to a good control location and making customer reserve and PAB account deposits; (2) customer reserve accounts and PAB account deposits would not be tokenized; (3) RSN Members would not hold Tokenized Securities within a good control location; and (4) RSN Members would not be relying on Tokenized Deposits or Tokenized Securities as regulatory margin.

Under these assumptions, no functions performed by RSN Members, as contemplated in the PoC, should constitute new market making, underwriting or dealing because they would be utilizing the RSN to facilitate settlement of securities transactions as part of the business in which the RSN Member would already be engaged in. Finally, Rule 15c3-1 requires broker-dealers to have and maintain a minimum level of net capital as calculated based on the greater of a specified minimum dollar amount or specified percentage of net capital in relation to either aggregate indebtedness or customer-related receivables as computed by the reserve requirements of Exchange Act Rule 15c3-3.[164] As discussed further in Section 7, the PoC would not change or have an effect on RSN Members' compliance with Rule 15c3-3 or other applicable margin requirements; as currently contemplated, this would include computations to the broker-dealer RSN Members' net capital and base capital requirements. To the extent that the RSN or its Members deviate from these assumptions, the application of FINRA Rule 1017 or Regulatory Notice 21-25 could require RSN Members to consult with FINRA prior to participating in the RSN.

However, it is possible that participation in the RSN could require broker-dealer RSN Members to file notice with their FINRA risk monitoring analyst by virtue of engaging in digital assets-related activity. FINRA Regulatory Notice 21-25 requests that FINRA members who "currently engage[], or intend[] to engage, in any activities related to digital assets" notify their risk monitoring analyst of such activity.[165] Such activities are defined broadly to capture firms who "provide or facilitate clearance and settlement services for cryptocurrencies and other virtual coins and tokens . . . record[] cryptocurrencies and other virtual coins and tokens using *distributed ledger technology or any other use of blockchain technology*."[166] Due to the broad range of activities covered, the use of a shared ledger maintained on a private, permissioned blockchain to settle transactions involving U.S. Treasury securities and/or IG bonds could be considered a use of blockchain technology that requires broker-dealer RSN Members to provide notice to FINRA.

# Customers Whose Transactions Are Settled Using the RSN

To the extent that customers engage RSN Members to settle transactions through the RSN but do not maintain their own Partitions, those activities alone should not require registration as an MSB or licensure as a money transmitter. For example, a customer making a payment or transferring an asset through an RSN Member would not, by doing so, engage in any activity that differs from the activities in which it would engage when the Member settles the same transaction through any other system.

Of course, individual regulatory regimes may require a customer to comply with regulatory requirements before utilizing a new payment or settlement system.[167] In addition, if a customer of an RSN Member is using the RSN to make payments as part of a business that itself constitutes money transmission or a money services business, use of the RSN would not exempt them from any related registration or licensing requirements that are already applicable to the customer.

164 See generally 17 C.F.R. §§ 240.15c3-1, 15c3-3; see also SEC, *SEC Financial Responsibility Rules* at 131, available at, https://www.sec.gov/about/offices/oia/oia_market/key_rules.pdf.

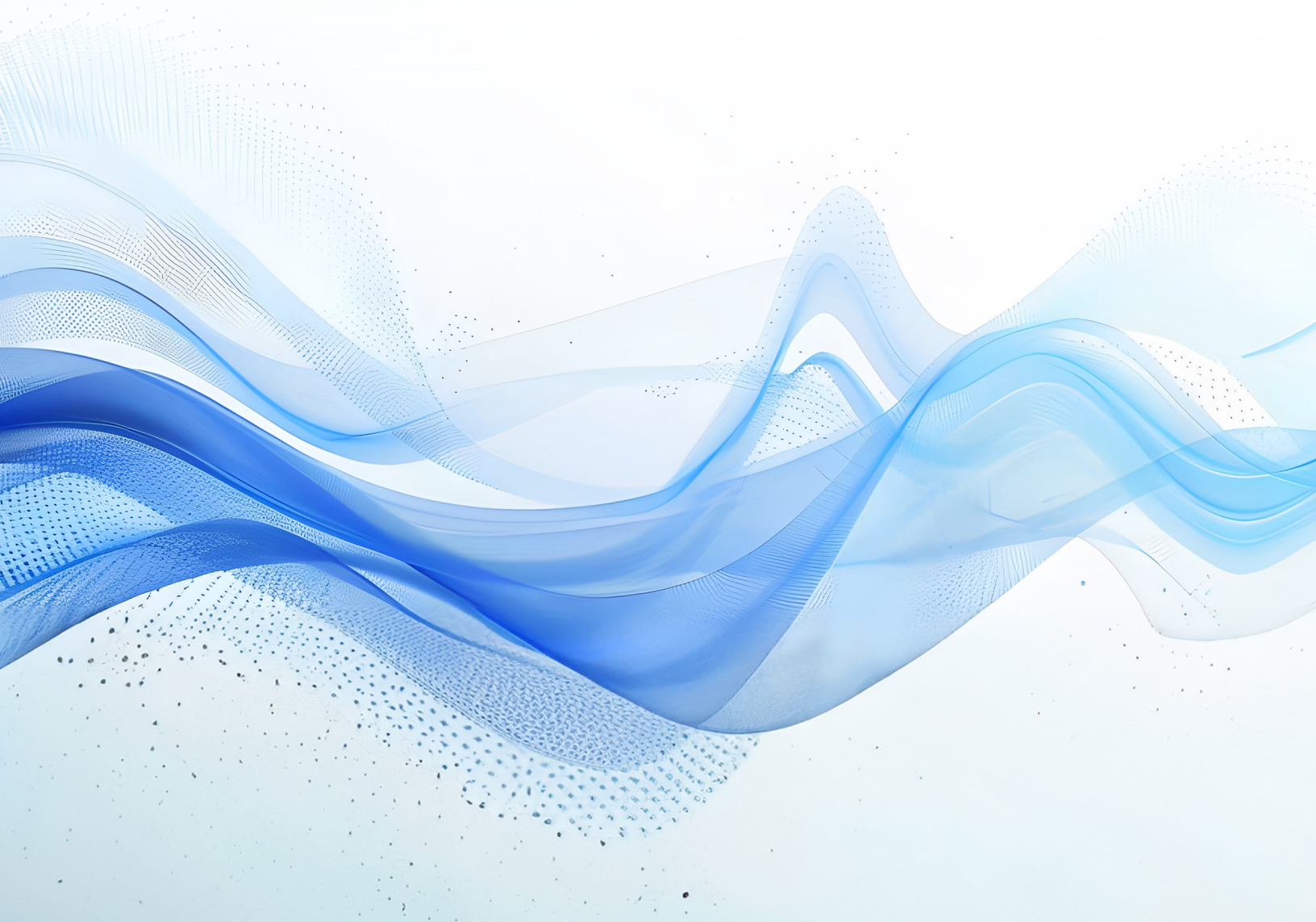
165 FINRA, *FINRA Continues to Encourage Firms to Notify FINRA if They Engage in Activities Related to Digital Assets*, Regulatory Notice 21-25, at 1 (July 8, 2021), available at https://www.finra.org/sites/default/files/2021-07/Regulatory-Notice-21-25.pdf.

166 Id. at 2 (emphasis added).

167 See, e.g., OCC Part 7 regulations as discussed above in "Bank Members—Permissibility," in this section.

# Section 4

Settlement Through RSN



# Introduction

We considered the proposed operation of the RSN, as evaluated in the PoC, under various sections of the Uniform Commercial Code, as adopted in New York, and other frameworks, to analyze whether settlement finality would be attainable under those frameworks. In particular, we analyzed Article 4-A of the UCC with respect to payments, and Article 8 of the UCC with respect to securities transfers. We did not consider or address issues relating to the possibility that a completed and final payment or securities transfer may be subject to clawbacks, zero-hour rules[168] or similar actions under any bankruptcy or insolvency regime except as discussed under "Securities Settlement–Implications for Statutory Safe Harbors for Securities Transactions" below, or under any other applicable law, as we believe that these issues would not be affected by the use of the RSN, as opposed to other existing systems, to settle payments or securities transfers.[169]

As described further in this section, it should be possible under Article 4-A and Article 8 to achieve settlement finality with respect to transfers made through the RSN to the same extent as under other existing systems. With respect to the application of Article 4-A, we believe that payments made using the RSN should be governed by Article 4-A and should be final at the point specified in the RSN Rulebook. Bringing all payments made through the RSN within the scope of Article 4-A would likely require the RSN to be a funds-transfer system (and therefore limiting RSN Members to entities that clearly satisfy the Article 4-A definition of "bank"), unless it is possible to rely on a contractual agreement among relevant Members. It will be necessary to evaluate in a later phase whether the benefits of the RSN being a "funds-transfer system" would be important for the RSN's operation.

With respect to the application of Article 8, transfers of securities positions made using the RSN should be governed by Article 8, under the provisions governing the indirect holding system, or (for U.S. Treasury securities held at a Federal Reserve Bank) regulations of the U.S. Treasury. Under Article 8 or these regulations, security transfers through the RSN should be final at the point specified in the RSN Rulebook. The finality of these transfers at this point could also be supported by complementary rules in a Federal Reserve Bank operating circular and rules of any CCP and CSD RSN Member. Additionally, the tokenization of securities positions in the RSN, and the use of the RSN to transfer Tokenized Securities, should not affect the ability of customers or participants of RSN Members to grant a perfected security interest in those positions or the application of statutory safe harbors for securities transfers.

Furthermore, although the application of Article 12 of the UCC (which would address "controllable electronic records") to the RSN would depend on the ultimate design of the system and the characteristics of the tokens used, under the current design it appears unlikely that Article 12, if it were enacted in New York, would apply to the Tokenized Deposits or the Tokenized Securities as contemplated in the PoC because it appears unlikely they would be considered "controllable electronic records." It would nonetheless be important to evaluate whether and to what extent any tokens that would be used in an operational RSN would be subject to the provisions of Article 12, so that, if any tokens would be subject to these provisions, the provisions could be addressed in both the design of the RSN and the RSN Rulebook.

This Report addresses only New York law, and all citations are to the New York version of the UCC (other than for the proposed Article 12, which has not been enacted in New York). It is possible that RSN Members could be located in other jurisdictions and that transactions involving those Members could be subject, in whole or in part, to the laws of those or other jurisdictions. We have not analyzed whether any transaction would be settled finally under any other laws, including the laws of foreign countries, and there exists the possibility that foreign courts might choose to apply their own law, rather than New York law, in spite of any choice of law provisions in the RSN Rulebook. As such, the laws of other jurisdictions in which RSN Members are located would consequently need to be analyzed to ensure that they would recognize the application of New York law to govern transfers through the RSN. Because the PoC assumed that all transactions settled through the RSN would be wholesale (i.e., non-consumer) payments, this Report does not address consumer regulations such as the Electronic Funds Transfer Act and Regulation E,[170] the Fair Credit Reporting Act and Regulation V[171] or Section 1033 of the Dodd-Frank Act regarding consumer rights to access financial information and related regulations.[172]

168 A "zero-hour rule" is a "provision in the insolvency law of some countries whereby the transactions conducted by an insolvent institution after midnight on the date the institution is declared insolvent are automatically ineffective by operation of law." See BIS & IOSCO, Principles for financial market infrastructures at 179 (April 2012), available at https://www.bis.org/cpmi/publ/d101a.pdf.

169 Article 4-A and Article 8, as applicable, determine when a payment or securities transfer becomes final, in the sense that it cannot be reversed or unwound; if the parties wish to "undo" the transfer, they must execute a new transfer to reverse the final payment or securities transfer. However, whether there are clawbacks, zero-hour rules or similar rules that might require the recipient to return the funds or securities will depend (among other things) upon the insolvency regime applicable to the entity in question. Because we concluded that, in the construct assessed in the PoC, the transfers made through the RSN should be treated as "funds transfers" under Article 4-A and the acquisition of a "security entitlement" under Article 8, and that the transfers will be "final" under Article 4-A or Article 8, as applicable, the same analysis that applies in insolvency to another funds transfer under Article 4-A or acquisition of a security entitlement should be applicable to a payment or securities transfer made through the RSN. See N.Y. U.C.C. Law § 4-A-104; id. § 8-501.

170 15 U.S.C. § 1693 et seq.; 12 C.F.R. part 1005.

171 15 U.S.C. § 1681 et seq.; 12 C.F.R. part 1022.

172 12 U.S.C. § 5533; CFPB, Required Rulemaking on Personal Financial Data Rights, 89 Fed. Reg. 90,838 (Nov. 18, 2024).

# Description of the Tokenized Deposits and Tokenized Securities

We considered the use of Tokenized Deposits and Tokenized Securities to record the ownership and transfer of deposit balances and securities positions, as applicable, in the manner modeled in the PoC.[173] A fundamental feature of both the Tokenized Deposits and Tokenized Securities contemplated in the PoC is that the relationship between the tokens and the deposits or securities to which they would relate would not be intended to be fundamentally different from any other traditional mechanism for recording the ownership and transfer of deposit balances or securities positions, as applicable. Importantly, the "tokens" relating to Tokenized Deposits or Tokenized Securities would not be intended to serve as an instrument with independent legal significance;[174] rather, the tokens would function solely within the RSN as a means to update the RSN Ledger to record ownership, or changes in ownership, of the applicable asset and the RSN Member would maintain its own ledger recording its own deposit liabilities or security entitlements held by its customers or participants. This section describes the Tokenized Deposits and Tokenized Securities, and the related tokens, as contemplated in the PoC.

Tokenized Deposits and Tokenized Securities would be a core feature of the RSN because, through the use of tokens to effect changes on a shared ledger maintained on a private, permissioned blockchain, the RSN FMI could effect with finality each payment or securities transaction that takes place through the RSN. Critically, a single, simultaneous, synchronized point of settlement finality could be defined in the RSN Rulebook for related payment and/or securities transactions taking place through the system, thereby enabling use cases that require DvP settlement. The point of settlement finality within the RSN could also be coordinated with the point of settlement finality for transactions processed through third-party regulated networks that interact with the RSN, in the applicable rulebook or related inter-network protocols or other agreements, thereby enabling use cases that provide synchronized settlement between the RSN and a third-party regulated network.

The tokens relating to Tokenized Deposits and Tokenized Securities would function solely within the RSN as a digital record, and a means to update the ledger within an RSN Member's Partition, on which the Member would record ownership of deposits and/or securities positions. Each token would exist solely within the Partition of a specific RSN Member that is controlled by the RSN Member that issued the token. The use of the tokens would enable the use of smart contracts to update the RSN Ledger, which would be the definitive record of holding and transfers of Tokenized Deposits and Tokenized Securities. As the definitive record, the RSN Ledger would also serve as the basis for any corresponding updates that a Member makes to its "off-chain" books and records. As currently envisioned as part of the PoC, each RSN Member would be in control of its own records, including its Partition. Every proposed transaction that would require a change to an RSN Member's Partition could be accepted or rejected independently by that RSN Member in its sole discretion. Although the RSN Ledger would be shared, each RSN Member would control any update affecting that RSN Member on the ledger within its Partition or on the RSN Ledger by exercising its right to determine whether to agree to each transaction. Because no transaction could be reflected on an RSN Member's Partition without its specific consent, updating the same RSN Member's Partition without further action by that RSN Member should be permissible under existing regulatory guidance (and, in fact, would ensure that the RSN Member's records are consistent with its actual assets and liabilities).

The RSN, as contemplated in the PoC, would permit RSN Members to use their own tokenization processes, so long as the resulting tokens are interoperable with the RSN, and it is possible that an RSN Member could use the same tokens for other purposes outside their use in the RSN, which could result in different conclusions as to the status of the tokens. Our analysis in this Report is limited to the use of Tokenized Deposits, Tokenized Securities and related tokens to the extent that they (1) are used within the RSN and (2) have the characteristics described below.

173 Based on the use cases tested in the PoC, the following types of deposits or credit balances may be tokenized in the RSN: deposits at a Federal Reserve Bank (i.e., tokenized central bank deposits, which would be recorded on the RSN "Fed Cash" Partition of a Federal Reserve Bank), deposits at a commercial bank (i.e., tokenized commercial bank deposits, which would be recorded on the RSN Partition of a commercial bank) and funds held in a customer account at a broker-dealer (which would be recorded on the RSN Partition of a broker-dealer).

Similarly, based on the use cases tested in the PoC, positions in the following securities may be tokenized in the RSN: U.S. Treasury securities or IG bonds. The PoC contemplates that tokenized securities may be recorded on the "Fed Securities" Partition of a Federal Reserve Bank or the Partition of a bank, a broker-dealer, a CCP or a clearing bank (for Tokenized Securities that are positions in U.S. Treasury securities), or the Partition of a bank, a broker-dealer or a CSD (for Tokenized Securities that are positions in IG bonds).

174 Tokenized Deposits only comprise instruments that serve as the direct equivalent of deposit liabilities in contrast to, for example, "official items" such as cashier's checks.

### Characteristics of All Tokens

Each token, whether relating to a Tokenized Deposit or a Tokenized Security, would be minted (i.e., created) by an RSN Member solely for use in the RSN by that Member or a customer of that Member. Each token would relate to a single asset, would never leave the issuing RSN Member's Partition, would never be transferred from one RSN Member to another and would be subject at all times to the control of the minting Member. There would be no secondary market for any Tokenized Deposit or Tokenized Security in such form, or for any related token.

As envisioned in the PoC, when a transfer of funds or securities from a Member or a customer or participant of that RSN Member to the same Member or another customer or participant of that RSN Member would be effected, the RSN would coordinate the debiting of the applicable tokens in the wallet held by the transferor on the applicable Member's Partition and the crediting of corresponding tokens to the wallet held by the transferee on that Partition. In contrast, when a transfer of funds or securities from an RSN Member or a customer or participant of an RSN Member to another RSN Member or a customer or participant of another RSN Member would be effected, the RSN would coordinate the debiting of the applicable tokens in the wallet held by the transferor on the Partition of the applicable RSN Member (i.e., the Member that is the transferor or at which the transferor is a customer or participant), the burning of those tokens upon the completion of settlement, the minting of corresponding new tokens in the Partition of the applicable RSN Member (i.e., the Member that is the transferee or at which the transferee is a customer or participant), and the crediting of those new tokens to the wallet held by the transferee on the Partition of the receiving RSN Member. In either case, the parties for whom tokens would be debited and credited would depend on the transaction being undertaken, and updates to the RSN Ledger would be made to reflect the new balances of the transferor and transferee.

Once the crediting of tokens to a wallet of the transferee has been completed, the RSN Member that maintains an account for the transferee could automatically transfer the assets to a deposit account (for a transfer of funds) or a securities account (for a transfer of securities) reflected on its "traditional" ledger (which would involve debiting the Tokenized Deposits or Tokenized Securities in the applicable account of the transferee), or may permit the transferee to choose whether to do so or to retain the tokens for use in subsequent transfers through the RSN (the availability of that choice may depend on the end-customer interface offered by the RSN Member and applicable regulatory requirements, such as for customer securities as described in Section 7).

The Tokenized Deposits and Tokenized Securities, and the Partitions of the RSN Members in which the tokens would be held, would have to be interoperable with the RSN, but would not need to be, and in the PoC were not assumed to be, identical between different RSN Members, because each token would be minted, held in a wallet and burned only within a single RSN Member's Partition. As noted above, tokens would never be transferred from one RSN Member's Partition to another; if there were a transfer between Members on the RSN, the sending Member would, in its Partition, debit tokens it had previously issued and the receiving Member would, in its Partition, issue tokens to record the applicable transfer. This approach ensures that, when transfers are made through the RSN, RSN Members continue to hold accounts, including deposit accounts or securities accounts, only for, and customers and participants would hold claims only against, parties with whom they have previously established account relationships.

### Tokenized Deposits

The tokens relating to the tokenized central bank deposits contemplated in the PoC would serve as a mechanism for updating the record of deposit liabilities of a Federal Reserve Bank maintained on the ledger within that Federal Reserve Bank's "Fed Cash" Partition. These deposit liabilities would represent funds held by commercial banks on deposit at the Federal Reserve Bank, as they currently do for reserve and other purposes. Like all Tokenized Deposits, tokenized central bank deposits within a Fed Cash Partition would not circulate in such form. As long as the tokens relating to these deposits exist, they would reflect deposits represented on the ledger maintained by the Federal Reserve Bank, and could not exist separately or independently from the Federal Reserve Bank's RSN Ledger.[175] They could not be issued to any person other than an RSN Member (which would in no event include any consumer or natural person), nor could they be used to make payments outside the RSN or for any purpose other than settling payments through the RSN.

Similarly, the tokens relating to the tokenized commercial bank deposits contemplated in the PoC would serve as a mechanism for updating the record of deposit liabilities of commercial bank RSN Members to their respective depositors and for facilitating the transfer of those deposit liabilities. In the concept evaluated in the PoC, these deposit liabilities would in all cases be demand deposits denominated in U.S. dollars. The intention of the Working Group is that the legal obligation of the commercial bank RSN Members to their depositors would not change as a result of the technology chosen to record or effectuate changes in ownership of the deposit.[176] Taken together, the tokens held in each customer's wallet

175 A Federal Reserve Bank may determine if a party is eligible for a master account. See 12 U.S.C. § 342.

176 As records of deposit liabilities, the Tokenized Deposits would not constitute an interest in the RSN or the RSN FMI or any other entity, nor in any income stream or operation. The Tokenized Deposits would convey no voting rights of this kind in any context. As far as the RSN is concerned, the tokens related to Tokenized Deposits could not be used for any purpose other than to settle payments through the RSN (or to be converted back to traditional deposits if an anticipated payment is not completed).

would relate to the portion of the total deposit liability of the minting RSN Member to the customer that would be reflected in the ledger maintained by that Member within its RSN Partition.

The liability recorded by an RSN Member on the ledger maintained as part of its Partition would be recorded by an RSN Member as an ordinary deposit liability. Barring any contrary applicable requirement, the intention of the Working Group is that the RSN Members would treat any RSN-related deposit liability in the same manner as any other deposit liability from an accounting and regulatory perspective, and treat the customer whose balance is reflected on the ledger as the depositor. Further, the fact that the only use of the tokens, as they relate to Tokenized Deposits, would be for effectuating transfers of funds on a single bank's ledger differentiates them from tokens that may themselves be delivered as payment or from bearer instruments or stablecoins.[177]

### Tokenized Securities

Like the tokens relating to Tokenized Deposits, the tokens relating to Tokenized Securities would serve as a mechanism for updating the ledger recording securities positions that banks with accounts at a Federal Reserve Bank hold at that Federal Reserve Bank and that customers or participants of an RSN Member (including a commercial bank, broker-dealer, CCP, CSD or clearing bank) hold at that Member, and as a mechanism to facilitate transfers of those positions. The intention of the Working Group is that the legal obligation of the RSN Members to their customers or participants in respect of the security entitlements reflected on the RSN Ledger would be identical to their obligations in respect of security entitlements that would exist under existing methods of recording such ownership rights, and would not change as a result of the technology chosen to record or effectuate changes in ownership of those positions. Furthermore, if Tokenized Securities were to constitute less than all of a customer's interest in a particular security held by that customer at an RSN Member, the Tokenized Securities would represent only that portion of the accountholder's position in that security at the RSN Member that is available for transfer on the RSN.

As discussed below, the property interest recorded by an RSN Member in respect of a customer or participant on the ledger maintained as part of the Member's Partition would be a "security entitlement" created by the RSN Member in favor of that customer or participant, for purposes of Article 8 of the UCC (as described further below). Barring any contrary applicable requirement, the intention of the Working Group is that the security entitlements created by virtue of entries in the ledgers maintained within the Members' RSN Partitions would be viewed in the same manner as a security entitlement created using existing technologies, from an accounting, recordkeeping and regulatory perspective, and the customer or participant whose security entitlement is reflected on the ledger within the Partition of the RSN Member serving as custodian would be the holder of that entitlement. Tokens held within a Partition in connection with Tokenized Securities—whether of a Federal Reserve Bank, commercial bank, broker-dealer, CCP, CSD or clearing bank—would not circulate. As long as these tokens exist, they would relate to security entitlements held by a customer or participant at the RSN Member at which it has established a securities account. No token could exist separately or independently from the Partition of the institution that minted it.[178]

# Payment Settlement

### Structure of Payment Steps

The **Centrally Cleared Treasury DvP Use Case** contemplates the sale of a U.S. Treasury security by one RSN Member (Bank A) to another RSN Member (Bank B) that is cleared through a CCP. Following the execution of the transaction between Bank A and Bank B, the transaction would be submitted to the CCP for matching and clearing, and novated, such that the original contract would be replaced with two new contracts, one in which Bank B would send a payment to the CCP, and the second in which the CCP would send a payment to Bank A, in each case in exchange for delivery of the relevant Treasury security. These payments would be settled through a clearing bank, which would also be an RSN Member with its own Partition.

- To carry out the payment between Bank B and Bank A, there would be two parallel series of payment instructions and related credits and debits, and two parallel series of delivery instructions, all of which would be orchestrated by the RSN FMI: the first payment order would instruct Bank B to credit the account of the CCP, and the second payment order would instruct the CCP to credit the account of Bank A.

177 See OCC Interpretive Letter No. 1172, at 1 ("Generally, a stablecoin is a type of cryptocurrency designed to have a stable value as compared with other types of cryptocurrency . . . . One type of stablecoin is backed by an asset such as a fiat currency."). A token related to a tokenized commercial bank deposit is distinct from a stablecoin because it would not be backed by fiat currency; instead, it is a digital record, or used to maintain a digital record, that would update a bank's record of its deposit liabilities.

178 The fact that the tokens relating to the Tokenized Securities could not be transferred outside the Partition in which they were minted does not imply that the Tokenized Securities themselves could not be transferred to a third party, whether through the RSN itself or by creating a security entitlement outside the RSN or removing the relevant securities from the RSN. However, the token itself has no relevance other than in its role in updating the ledger of the relevant RSN Member and, as a result, at least as contemplated in the PoC, there would be no benefit to transferring the token outside that RSN Member's Partition.

- The payment obligations of Banks A and B and the CCP would be settled on the books of the clearing bank. The clearing bank would debit the net amount of Bank B's tokenized commercial bank deposits account and credit the net amount of Bank A's tokenized commercial bank deposits account, which would be reflected on the clearing bank's Partition by burning and minting tokenized commercial bank deposits of Bank B and Bank A accordingly. (Settlement of the securities delivery is discussed below under "Securities Settlement.")

The **Cross-Network Intraday Repo Settlement Use Case** is also a dealer-to-dealer use case that contemplates a transfer, for the start leg of a repurchase agreement, of a U.S. Treasury security from one RSN Member (Bank A, the seller described in Section 2 for this use case) holding the security at a Federal Reserve Bank to another RSN Member (Bank B, the buyer described in Section 2 for this use case) that would hold the security at the same Federal Reserve Bank, and a corresponding payment by Bank B to Bank A. The end or "off" leg of the repurchase agreement would be a separate, corresponding transfer of the security in the other direction, from Bank B to Bank A, also on the books of the Federal Reserve Bank, and a corresponding payment by Bank A to Bank B.[179]

- To carry out the payments from Bank B to Bank A and from Bank A to Bank B, Broadridge DLR would transmit the transaction information as agent on behalf of Banks A and B (which are both members of Broadridge DLR), including the payment orders instructing Bank B to deliver payment to Bank A and instructing Bank A to deliver payment to Bank B.

- The payment obligations of Bank B to Bank A and of Bank A to Bank B would each be satisfied by transfer of funds on the books of the Federal Reserve Bank. The Federal Reserve Bank would debit the net amount of Bank B's or Bank A's, as applicable, tokenized central bank deposits account and credit the net amount of Bank A's or Bank B's, as applicable, tokenized central bank deposits account, which would be reflected on the Federal Reserve Bank's Partition by burning and minting tokenized central bank deposits of Bank B and Bank A accordingly.

- Once settlement occurs, the successful transaction message is sent back to the Broadridge DLR.

The **Cross-Network DvP Settlement Use Case** contemplates the sale of a tokenized real-world asset by one corporate client to another on a third-party platform that is integrated with the RSN, such that the payment leg of the transaction can be settled by the clients' banks that are RSN Members on the RSN.[180] The settlement of the other "leg" of the transaction (the transfer of assets from the seller to the purchaser) would not happen within the RSN network.[181] The settlement on MTN may not occur at that same moment in time, but the rules of MTN would establish the consequences for the purchaser and seller of the assets if, for some reason, settlement of the transfer of assets were not completed.

To carry out the payment between the two customers of the RSN Members, there would be two parallel series of payment instructions and related debits and credits transmitted to the RSN scheduler by MTN on behalf of the parties, and then orchestrated by the RSN FMI:

- The payment from the originator to the beneficiary (the "originator-beneficiary payment") submitted by MTN to the RSN on behalf of (as agent for) the corporate customer, instructing the customer's bank (Bank A), as the originator's bank, to initiate a payment to the beneficiary, the second MTN corporate client; to carry out this payment order, Bank A would issue a payment order to the beneficiary's bank (Bank B), instructing it to credit the account of the beneficiary;

- The payment by the originator's bank to the beneficiary's bank (the "bank-to-bank payment") would be initiated by an instruction from the originator's bank to the Federal Reserve Bank, instructing it to pay the beneficiary's bank; and

- The obligation of the originator's bank (Bank A) to the beneficiary's bank (Bank B) in respect of the bank-to-bank payment would be satisfied by a transfer of funds on the books of the Federal Reserve Bank. The Federal Reserve Bank would make this transfer by debiting tokenized central bank deposits held in the account of the originator's bank and crediting tokenized central bank deposits to the account of the beneficiary's bank.

MTN would coordinate the transfer of the asset on MTN. The enforceability of the MTN rules and finality of settlement on MTN were not evaluated in the PoC. Rather, it was assumed that MTN had completed all measures necessary to achieve the effectiveness of settlement on its own system, and the RSN would be responsible only for completion of the payments "leg" of the transaction. If the RSN were to establish interoperability mechanisms with other settlement networks, we assume that the RSN FMI would perform appropriate due diligence as to the procedures of the other network to determine the point of settlement finality in relation to the

179 In the PoC, the start leg of the repo occurred at 10:00 am ET and the end leg took place at 12:00 pm ET, providing a two-hour term for the transaction.

180 See Section 2 above for a more detailed description of the MTN platform as contemplated in this use case.

181 Although this use case addressed a DvP settlement transaction by RSN Member banks (that are also members of the MTN) on behalf of their customers, only the payment leg of these transaction was settled on the RSN. The PoC was designed so that the only piece of the transaction that was tested in the use case was the payment instruction between the two RSN Member banks that relates to an asset transaction on the MTN.

relevant asset as part of its considerations in establishing the cross-network arrangement. This Report only addresses the completion of the relevant payment by means of the RSN.

The **Client-to-Client IG Bond DvP Settlement Use Case** contemplates the transfer of an IG bond, immobilized within a CSD, from a client (the seller) of one broker-dealer (Broker-Dealer 2) to a client (the buyer) of another broker-dealer (Broker-Dealer 1), and a corresponding payment by Broker-Dealer 1 to Broker-Dealer 2. Each of Broker-Dealer 1 and Broker-Dealer 2 would be participants in the RSN and would maintain their own ledgers in their own Partitions. Broker-dealers cannot maintain master accounts at Federal Reserve Banks and, as a result, would settle the cash leg of the transaction as customers of their own banks, which are RSN Members.

In such a case, the payment flow would generally involve the following steps, which would be orchestrated by the RSN FMI:

- The seller and the buyer would instruct their respective broker-dealers to initiate the transaction to either buy or sell the IG bonds, respectively.
- The payment from Broker-Dealer 1 to Broker-Dealer 2 on behalf of the buyer (Originator-Beneficiary Payment) would be initiated by an instruction from the originator (Broker-Dealer 1) to its bank, the originator's bank (Bank A), and a second instruction from the originator's bank (Bank A) to the beneficiary's bank (Bank B), instructing the beneficiary's bank to pay the beneficiary.
- The payment by the originator's bank to the beneficiary's bank (Bank-to-Bank Payment) would be initiated by an instruction from the originator's bank to the Federal Reserve Bank, instructing it to pay the beneficiary's bank.
- The obligation of the originator's bank to the beneficiary's bank in respect of the Bank-to-Bank Payment, which would arise from the Originator-Beneficiary Payment, would be satisfied by a transfer of funds on the books of the Federal Reserve Bank. The Federal Reserve Bank would make this transfer by debiting tokenized central bank deposits held in the account of the originator's bank and crediting tokenized central bank deposits to the account of the beneficiary's bank.
- The obligation of the beneficiary's bank (Bank B) to its customer (Broker-Dealer 2) would be satisfied by the crediting of tokenized commercial bank deposits to the account of Broker-Dealer 2 reflected on the ledger of Bank B within Bank B's Partition (and Broker-Dealer 2's ledger would also be updated within its Partition to reflect its receipt of the funds).
- The RSN would coordinate these actions by the RSN Members by determining the point at which the payment occurs and each party becomes obligated to each other, and notifying the parties of the final settlement on the RSN, causing the RSN Members' ledgers to update to reflect these obligations.
- After receiving evidence of the settlement event from the RSN FMI, each of Broker-Dealer 1 and Broker-Dealer 2 would also update its ledgers to reflect that it holds the Tokenized Securities and Tokenized Deposits, as applicable, on behalf of its respective customers.[182]

The **Cross-Network Correspondent Bank Settlement Use Case** tested a payment by one corporate end user of the Tassat network (the originator) to another corporate end user of that network (the beneficiary). Each corporate end user's bank would be a member of Tassat, but would not be a member of the RSN. When a payment is settled through the Tassat network, the originator's bank would need to transfer funds to the beneficiary's bank in satisfaction of its obligations arising as a result of the payment made through the Tassat network; the bank would do so through its settlement agent bank who uses the RSN to make the necessary payment to the beneficiary's bank's settlement agent bank.

The flow would generally involve the following steps:

- The originator-beneficiary payment would be initiated by an instruction from a corporate client as originator to its bank through Tassat to pay another corporate client. Both the originator's bank and the beneficiary's bank would be Tassat-powered banks that would not be RSN Members but have settlement agents that would be RSN Members. Settlement through the RSN would be initiated by an instruction sent by Tassat via the Swift interlinking prototype to the RSN, and the RSN FMI would create a settlement path for that payment involving the settlement agents of the originator's and beneficiary's banks.
  - The originator's bank would instruct its settlement agent to make payment of its payment order to the beneficiary's bank.
  - The originator's bank's settlement agent would pay the beneficiary's bank's settlement agent by instructing the Federal Reserve Bank to make payment to the beneficiary bank's settlement agent in the same manner in which transactions would generally be settled between two RSN Member banks, as described above.
  - The obligation of the originator's bank to its settlement agent would be satisfied on the RSN Network by the settlement agent debiting tokenized commercial bank deposits from the account maintained by the originator's bank's settlement agent for the originator's bank.

182 RSN Members that are broker-dealers would have access to full Partitions, which could be used to demonstrate real-time holdings for customers, but tokenized funds reflected on its ledger would reflect funds on the broker-dealer's balance sheet rather than commercial bank deposits.

  - The beneficiary's bank's settlement agent would credit tokenized commercial bank deposits to the account maintained by it for the beneficiary's bank.
  - The beneficiary's bank would, on Tassat, credit tokenized commercial bank deposits to the account maintained by it for the beneficiary.

- The RSN would coordinate the actions by the RSN Members on the RSN Network by determining the point at which the payment occurs and each party becomes obligated to each other, and notifying the parties of the final settlement on the RSN, causing the RSN Members' ledgers to update to reflect these obligations. Tassat would also cause final payment at the same time in accordance with the rules of the Tassat network.

### Structure of Payments

As noted in some of the use cases, not all of the payment instructions would be sent via the RSN. In some of the use cases, particularly the ones testing interoperability, the originator's payment instruction would likely be sent outside of the RSN. For example, in the Cross-Network DvP Settlement Use Case, the instruction would be sent from MTN to the RSN with the methods for enabling this connectivity being either a direct API integration from MTN to the RSN or via the Swift interlinking prototype. In the Cross-Network Correspondent Bank Settlement Use Case, the originator's payment instruction would be sent from the Tassat platform to the RSN via the Swift interlinking prototype. Accordingly, in these cases, the instructions to the RSN would be initiated by non-Members. MTN and the Tassat platform would be acting as agent of the originators in these cases.

All payment instructions submitted to the RSN for processing would have to be in accordance with the rules of the RSN (described in more detail in Section 8 below). Each payment instruction would be unconditional, instructing the recipient to make settlement with no requirements that must be satisfied other than, possibly, the time of settlement. The RSN Rulebook would specify that none of the payment instructions relating to a particular payment would be released unless all the payment instructions are released in accordance with the RSN Rulebook (so-called "simultaneous settlement"). Under the RSN Rulebook, the RSN FMI would release all the payment instructions once all the RSN Members involved in the transaction have approved the specific funds transfer (via cryptographic approval sent to the RSN FMI after the funds transfer has been proposed), after performing their compliance checks.[183]

Once the payment instructions have been released, final settlement of all steps in the payment occurring on the RSN would occur simultaneously on an "atomic" basis: the RSN FMI would simultaneously update the RSN Ledger to record (1) the completed status of the funds transfer, and (2) a timestamp of the update to the RSN Ledger.[184] This RSN Ledger update would be the "settlement event." The RSN Rulebook would provide that the update to the RSN Ledger results in the final and irrevocable settlement of both the payment from the originator to the beneficiary, and the payments from each RSN Member and/or the Federal Reserve Bank to each other RSN Member. The settlement event would be visible to the RSN Members and would occur after receipt by the RSN FMI of the last approval by an RSN Member in the funds transfer settlement path.

Following the settlement event, each RSN Member would be required under the RSN Rulebook to update its own ledger that records the Tokenized Deposits (or tokenized broker-dealer funds) and related balances and is maintained within its Partition to reflect the completion of the payment(s).[185] Upon retrieving evidence of the settlement event from the RSN Ledger, which is expected to occur frequently and automatically, each RSN Member's Partition (including a Federal Reserve Bank's Fed Cash Partition) would be updated by either debiting the Tokenized Deposit balance of the sender of funds to reflect the update to the ownership of funds recorded on its ledger and/or crediting additional Tokenized Deposits to the balance of the recipient of funds recorded on its ledger, as per the instructions from the RSN FMI. However, if, somehow, an RSN Member failed to credit or debit Tokenized Deposits or update its ledger or cause its ledger to be updated in accordance with the RSN Ledger, it would have no effect on the finality of the payment or the rights or obligations of the RSN Members involved in the payment.

### Applicability of Article 4-A

Article 4-A of the New York Uniform Commercial Code governs "funds transfers," including determining when a payment made by means of a "funds transfer" becomes "final"—i.e., irrevocable and unconditional.[186] For purposes of Article 4-A, a "funds transfer" is

183 Another way of characterizing the process is that the RSN FMI would release the payment orders, by operating the smart contract, as agent for the various senders. See N.Y. U.C.C. Law § 4-A-206(1). Depending on its final design, the RSN may qualify as a funds-transfer system and should, at the very least, qualify as a "third-party communication system" for purposes of Article 4-A. Id. Simultaneously, the RSN FMI would receive the payment orders as the agent of the various recipients.

184 For more information, see Section 1 above and the RSN Business Applicability and RSN Technical Feasibility Reports.

185 Readers are encouraged to refer to the RSN Technical Feasibility Report for further details about whether these updates could be automated. Even if technologically feasible, each RSN Member would maintain the discretion to choose whether or not to automate its own deposit ledger within its own Partition and would retain control over its Partition even if it determined to outsource this function to the RSN FMI.

186 See N.Y. U.C.C. Law § 4-A-404(1). As noted above, Article 4-A governs "funds transfers" and Article 8 governs transfers of interest in securities; if other assets are included in a future stage of the RSN, a different legal framework may be required for settlement finality.

"the series of transactions, *beginning with the originator's payment order*, made for the purpose of making payment to the beneficiary of the payment order."[187]

A "payment order" means an "instruction of a sender to a receiving bank, transmitted orally, electronically, or in writing, to pay, or to cause another bank to pay, a fixed or determinable amount of money to a beneficiary" if the instruction meets the following requirements:

- The instruction does not state a condition to payment to the beneficiary, other than time of payment;
- The receiving bank is to be reimbursed by debiting an account of, or otherwise receiving payment from, the sender; and
- The instruction is transmitted by the sender directly to the receiving bank or to an agent, funds-transfer system or communication system for transmittal to the receiving bank.[188]
- Using the terminology defined in Article 4-A, the sender of a payment order is not necessarily the originator of the payment, and the receiving bank is not necessarily the beneficiary's bank. The terms originator and beneficiary's bank are defined in relation to the overall funds transfer, while the terms sender and receiving bank relate to each payment order making up the overall funds transfer. For example, in a simple funds transfer that occurred outside of the RSN, there might be a payment order from the originator to its bank, and then a second payment order from the originator's bank to the beneficiary's bank. For the first payment order, the originator would be the sender and the originator's bank would be the receiving bank; in the second, the sender would be the originator's bank and the receiving bank would be the beneficiary's bank.

We believe that the payment instructions that would be used in the RSN, as evaluated in the PoC, would satisfy the definition of "payment order" in Article 4-A, because:

- There would be no conditions to payment in any of these instructions.[189] Each instruction would be submitted under the rules of the RSN, which would specify the circumstances in which an instruction would be released, but the instructions themselves would not specify any conditions. In practice, this means that in a given use case, the payor would initiate payment and, in a DvP use case, the deliverer would initiate delivery. Alternatively, another way to characterize this arrangement is that there would be conditions to the authority of the RSN FMI, as agent for the RSN Members, to send an instruction on behalf of the relevant RSN Member (i.e., satisfaction of all the conditions specified in the RSN Rulebook to the execution of the related smart contract), but those conditions would all be satisfied when the RSN FMI sends the payment orders as agent of the RSN Members (the agency relationship would be established by the RSN Rulebook).[190] All payment orders sent through a funds-transfer system or other third-party communication system are sent by the funds-transfer system as agent for the sender.[191]
- In each case, the receiving bank would be reimbursed by debiting a deposit account of the sender, or would otherwise receive payment from the sender. In some of the use cases, this reimbursement would occur by means of the transfer on the books of the Federal Reserve Bank; in other use cases, such as the Cross-Network Correspondent Bank Settlement Use Case, reimbursement of the originator's bank's settlement agent and the beneficiary's bank would occur by means of debits and credits to the deposit accounts maintained by the settlement agents for the originator's bank and the beneficiary's bank using tokenized central bank deposits, as described above.
- The payment order would be transmitted by the sender or its agent to the RSN FMI (other than the originator's payment order, which would likely be sent directly to the originator's bank), which would be a funds-transfer system or communication system (as discussed below), and by the RSN FMI, as agent for the sender, directly to the receiving bank.[192]

187 Id. (emphasis added).

188 Id. § 4-A-103(1)(a).

189 There may be conditions built into the RSN rules or the smart contracts implementing those rules that determine when the instructions are executed, but the instructions themselves would contain no conditions.

190 Article 4-A contemplates that agents may send payment orders on behalf of their principals. See N.Y. U.C.C. Law §§ 4-A-103(1)(a)(iii), 4-A-206(1); see also id. § 4-A-104 cmts. 4, 6. The official commentary to Article 4-A acknowledges that an agent's act can cause a payment that otherwise would not be within the scope of Article 4-A to fall within the scope of Article 4-A, providing an example of a situation in which the submission of an instruction by a party acting as agent for the sender sending a payment to the agent, rather than instructing a payment as the sender's payee, results in an otherwise out-of-scope instruction (because it would be a debit transaction) becoming an Article 4-A payment order (because the order is deemed to have been sent by the sender through its agent, even though the agent is also the payee). Id. § 4-A-104 cmt. 4.

191 Id. § 4-A-104 cmt. 4.

192 Id. § 4-A-104 cmt. 5 ("The principal effect of [this requirement] is to exclude from Article 4A payments made by check or credit card. In those cases the instruction of the debtor to the bank on which the check is drawn or to which the credit card slip is to be presented is contained in the check or credit card slip signed by the debtor. The instruction is not transmitted by the debtor directly to the debtor's bank.").

As discussed above, Article 4-A clearly contemplates that agents may send payment orders on behalf of their principals, without any suggestion that doing so would result in the instruction being sent indirectly.

The settlement event would be the release of (i) a payment order from the originator's bank to the beneficiary's bank to credit the account of the beneficiary, and (ii) a corresponding payment order from the originator's bank to the applicable Federal Reserve Bank to debit the tokenized central bank deposit account of the originator's bank and credit the tokenized central bank deposit account of the beneficiary's bank.[193]

### Payment from Originator to Beneficiary and Discharge of Obligation

Under Article 4-A, the beneficiary's bank becomes unconditionally and irrevocably obligated to pay the amount of a payment order to the beneficiary when the beneficiary's bank "accepts" the payment order.[194] Accordingly, this point is also the point at which the originator of the funds transfer has paid the beneficiary,[195] and, if the payment is made to satisfy an obligation, that obligation is discharged.[196] The "effect of [these provisions] is to substitute the obligation of the beneficiary's bank for the obligation of the originator."[197]

For purposes of Article 4-A, the beneficiary's bank "accepts" a payment order at the earliest of the following times:

- When the beneficiary's bank either "pays" the beneficiary, or notifies the beneficiary that it has received the payment order or that it has credited the beneficiary's account with respect to the payment order (unless notice indicates that the bank is rejecting the payment order or that the funds cannot be withdrawn);
- When the beneficiary's bank receives payment of the sender's payment order;[198] or
- The opening of the next funds-transfer business day of the beneficiary's bank, if the sender's account has sufficient available funds to pay the payment order or the amount of the payment order is otherwise paid (unless the payment order has otherwise been rejected).[199]

The beneficiary's bank may receive payment of the sender's payment order in several ways for purposes of Article 4-A. Relevant to the RSN, if the sender is a bank, the beneficiary's bank receives payment when it receives final settlement of the obligation through a Federal Reserve Bank or through a funds-transfer system.[200] Accordingly, in a payment settled through the RSN, when both the originator's bank and the beneficiary's bank are RSN Members and the beneficiary's bank receives final settlement of the bank-to-bank payment by means of an update to the ledger with a Federal Reserve Bank's Fed Cash Partition, the beneficiary's bank would also "accept" the payment order relating to the originator-beneficiary payment, and, as a result, payment of the originator-beneficiary payment from the originator to the beneficiary would occur and any underlying obligation of the originator to the beneficiary would be discharged.

In each use case other than the Cross-Network Correspondent Bank Settlement Use Case, the Federal Reserve Bank would be the "beneficiary's bank" and the banks would be the "originator" and the "beneficiary" of the bank-to-bank payment. If governed by Article 4-A itself, payment from the originator to the beneficiary of the bank-to-bank payment would occur when the Federal Reserve Bank "accepts" the payment order relating to the bank-to-bank payment, and "acceptance" would occur when the Federal Reserve Bank "paid" the beneficiary of the bank-to-bank payment or notified it that it has received the payment order or that the Federal Reserve Bank has credited its Tokenized Deposits account with respect to the payment order (unless a notice indicates that the bank is rejecting the payment order or that the funds cannot be withdrawn).

In the Cross-Network Correspondent Bank Settlement Use Case, the beneficiary's bank would accept the payment order in the same

193 As noted above in Section 2, there would be additional payment orders and related debits and credits in some of the use cases. The RSN would coordinate the sending of those other payment orders as well.

194 See id. § 4-A-404(1) ("if a beneficiary's bank accepts a payment order, the bank is obliged to pay the amount of the order to the beneficiary of the order").

195 Id. § 4-A-406(1).

196 Id. § 4-A-406(2).

197 Id. § 4-A-406 cmt. 2.

198 This is the case if payment occurs pursuant to N.Y. U.C.C. Law § 4-A-403(1)(a) or (b).

199 N.Y. U.C.C. Law § 4-A-209(2). Alternative rules may apply when a funds transfer is made through a "funds-transfer system." Id. § 4-A-209 cmt. 3. However, if the RSN were not a funds-transfer system, these alternative rules would not apply, though the provisions regarding acceptance can also be modified by agreement (such as in a rulebook to which all parties adhere). Id. § 4-A-501(1).

200 Id. § 4-A-403(1). Section 4-A-403(2) of the U.C.C., as enacted in New York, is inapplicable because the RSN is not a funds-transfer system that nets obligations multilaterally.

manner as in the bank-to-bank use cases described above—i.e., when it receives payment of the payment order sent to it by its settlement agent bank.[201] The beneficiary's bank would receive payment from the beneficiary's bank's settlement agent in the form of Tokenized Deposits delivered to the account maintained for it by the settlement agent (i.e., a credit to an account maintained for it by the settlement agent bank).

Article 4-A provides two other methods for payment of a payment order that is sent by a bank, in addition to final settlement though a Federal Reserve Bank, as described above:

- If the bank that sends the payment order *credits* an account[202] of the receiving bank with the sender (or causes another bank to credit an account of the receiving bank), then payment occurs when the credit is withdrawn.[203]

- If the receiving bank *debits* an account of the sender with the receiving bank, then payment occurs when the debit is made, to the extent the debit is covered by a withdrawable credit balance in the account.

Neither of these provisions would result in automatic payment upon the settlement event, because they depend upon the sender and the receiving bank taking actions that cannot be controlled by the RSN FMI. In particular, in the Cross-Network Correspondent Bank Settlement Use Case, the originator's bank and beneficiary's bank would not be RSN Members, so the RSN FMI cannot cause either to credit or debit an account. However, Article 4-A permits certain of its provisions to be varied by agreement of the affected parties.[204] Accordingly, if the RSN Rulebook, an agreement among the RSN Members, were to specify that the completion of the smart contract results in (1) final payment by the beneficiary's bank to the beneficiary (i.e., that the beneficiary's bank is irrevocably and unconditionally obligated to the beneficiary) and/or (2) final payment by the beneficiary's bank's settlement agent to the beneficiary's bank (i.e., that the settlement agent bank is irrevocably and unconditionally obligated to the beneficiary's bank)—in each case whether or not the relevant changes to the ledgers are made at that time—then the occurrence of the settlement event should achieve final payment of the originator-beneficiary payment from the originator to the beneficiary.[205]

### Settlement Finality Between RSN Members that Are Banks

As discussed above, settlement finality between the bank RSN Members in the Cross-Network DvP, Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement, Cross-Network Intraday Repo Settlement and Client-to-Client IG Bond DvP Settlement Use Cases would be straightforward, because the beneficiary's bank would receive final payment of the payment order on the ledger of a Federal Reserve Bank as a result of the crediting and debiting of the tokenized central bank deposits, as described above.

The same mechanism would also apply with respect to the payment by the settlement agent of the originator's bank to the settlement agent of the beneficiary's bank in the Cross-Network Correspondent Bank Settlement Use Case. However, in the Cross-Network Correspondent Bank Settlement Use Case, there would also be payment orders (i) from the originator's bank to the originator's bank's settlement agent and (ii) from the beneficiary's bank's settlement agent to the beneficiary's bank. Both the settlement agent of the originator's bank and the settlement agent of the beneficiary's bank, as well as the originator's bank would need to "accept" and/or "execute" the relevant payment orders. A receiving bank other than the beneficiary's bank accepts a payment order when it executes the payment order,[206] and the receiving bank "executes" the payment order when it issues a payment order intended to carry out the payment order that it received.[207]

201 Alternatively, the beneficiary's bank could "accept" the payment order, and become obligated to the beneficiary, by giving notice to the beneficiary of its receipt of the payment order or that it has credited the beneficiary's account with respect to the payment order. See id. § 4-A-209(2)(a). However, we have not relied upon this provision in our analysis because the RSN, as contemplated in the PoC, would not provide for such a notice and it may be difficult to coordinate the timing of such a notice if the beneficiary were not an RSN Member in some form.

202 We do not believe the usage of an account holding tokens to facilitate the maintenance of a ledger recording deposit liabilities should affect the treatment of those deposit liabilities as an account.

203 Id. § 4-A-403(1)(b). If the credit is not withdrawn, then payment occurs at midnight of the day on which the credit is withdrawable and the receiving bank learns of that fact.

204 Id. § 4-A-501(1).

205 This conclusion may be bolstered if the RSN would be a "funds-transfer system," as described below, because the rules of a funds-transfer system may be effective even if the rules conflict with Article 4-A and indirectly affect the rights of another party to the funds transfer, including the beneficiary, that does not consent to the rule. See id. § 4-A-501(2). Furthermore, in that case, if the rules of the RSN were to provide that the payment to the settlement bank would be final upon the RSN FMI's execution, then the RSN could rely upon the provision that a receiving bank is paid when it receives payment "through a funds-transfer system." Id. § 4-A-403(1)(a).

206 Id. § 4-A-209(1).

207 Id. § 4-A-301(1).

By operation of the smart contract in the RSN, the settlement agent of the originator's bank would release its payment order to the settlement agent of the beneficiary's bank, and the settlement agent of the beneficiary's bank would release its payment order to the beneficiary's bank, simultaneously with the release of the payment order of the originator's bank's to its settlement agent. As such, both the settlement agent bank of the originator's bank and the settlement agent bank of the beneficiary's bank would "accept" the payment orders simultaneously with the release of the payment order of the originator's bank.[208]

As contemplated in the PoC, the payment to the settlement agent of the originator's bank would be made by debiting the originator's bank's account at the settlement agent of the originator's bank (i.e., debiting tokenized commercial bank deposits in the originator's bank's account at its settlement agent bank; in the Cross-Network Correspondent Bank Settlement Use Case, this will occur on the Tassat network, not on the RSN). Similarly, in the structure evaluated in the PoC, the payment to the beneficiary's bank would be effected by crediting the beneficiary's bank's account at its settlement agent bank. As discussed above, these payments could be achieved in the manner described above in reliance upon the agreement of the RSN Members in the RSN Rulebook. We anticipate that in addition to the RSN Members agreeing to abide by the terms of the RSN Rulebook, Tassat or any other third-party regulated network that may interact with the RSN would also be required to abide by the RSN Rulebook, as applicable, and would agree with the RSN FMI to specify the point of settlement finality on its network consistently with RSN, prior to settling any transactions on the RSN.

### Is the RSN a Funds-Transfer System?

The analysis supporting the conclusion that settlement of all elements of a payment—both the originator-beneficiary payment and the bank-to-bank payment—would be facilitated if the RSN were a "funds-transfer system" for purposes of Article 4-A. There would also be other benefits if the RSN were a funds-transfer system for this purpose, including the ability to adopt rules affecting persons who are not parties to the RSN Rulebook and the ability to choose the laws of a single jurisdiction to govern an entire payment, even if it involves parties located in multiple jurisdictions.

A funds-transfer system is a "wire transfer network, automated clearing house, or other communication system of a clearing house or other association of banks through which a payment order by a bank may be transmitted to the bank to which the order is addressed."[209] A "funds transfer rule" means "a rule of an association of banks (i) governing transmission of payment orders by means of a funds-transfer system of the association or rights and obligations with respect to those orders, or (ii) to the extent the rule governs rights and obligations between banks that are parties to a funds transfer in which a Reserve Bank, acting as an intermediary bank, sends a payment order to the beneficiary's bank."[210]

Whether the RSN would be a funds-transfer system would depend, in part, on the extent to which it includes non-bank (and non-financial institution) Members. The definition of "bank" for purposes of Article 4-A has been interpreted to include some types of financial services companies that routinely engage in transmitting funds on behalf of other persons, such as broker-dealers and futures commission merchants making payments in connection with their financial services business.[211] The number of cases analyzing the question is relatively small, however, and may not encompass all the types of entities that would be included as Members of the RSN.[212] Furthermore, it is not clear whether characterizing non-banking entities with limited roles as "Members" would affect a court's analysis of the RSN's status as a funds-transfer system. Accordingly, as the structure of the RSN is developed, it will be necessary to evaluate whether the benefits of being considered a "funds-transfer system" would be sufficiently important to justify limiting RSN Members to entities that clearly fall within the definition of banks.[213]

208 At the same time, the RSN FMI would be deemed to receive the respective payment orders as the agent of the RSN Members.

209 Id. § 4-A-105(1)(e) (emphasis added).

210 Id. § 4-A-501(2).

211 In part, the feasibility of this approach turns on whether a broker-dealer could be considered a "bank" for purposes of Article 4-A. A "bank" is defined for purposes of Article 4-A and has been interpreted to include some types of financial services companies beyond just banks. There is limited case law on this topic, especially in New York, but some cases, in New York and other states, have found that entities that routinely engage in transmitting funds on behalf of other persons, such as broker-dealers making payments in connection with their financial services business, can be considered "banks" for this purpose. See, e.g., *Ma* v. *Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 597 F.3d 84 (2d Cir. 2010) (holding that the definition of "bank" for purposes of Article 4-A included Merrill Lynch); *Whitaker* v. *Wedbush Sec., Inc.,* 162 N.E.3d 269, 276-277 (Ill. 2020) (holding that Wedbush Securities, Inc., an SEC-registered broker-dealer, met the definition of a bank under Article 4-A, as adopted in Illinois).

212 We note that the official commentary to Article 4-A states that Swift is a funds-transfer system. See N.Y. U.C.C. § 4-A-105 cmt. 3. Swift does include non-bank members in a variety of capacities. However, the official commentary was drafted when Swift had only bank members, and it is unclear whether a court would take the same view in the case of a system that from its inception involved non-bank members, or of a less established system that had exclusively bank members for a short period of time before admitting non-bank members.

213 At least at this stage, we do not believe that this concern would mean that corporate users could not be granted access to the system or be allowed to use interfaces that involve maintaining a Partition or similar rights. However, we believe that the Tokenized Deposits used in the RSN would likely have to be limited to obligations of entities that clearly fall within the definition of "bank," consistent with the concept evaluated in the PoC, and that the role of non-banks in the ownership and governance of the RSN would likely have to be very limited. If it is determined that participation by such entities is important to the success of the RSN, this issue would require further analysis.

# Securities Settlement

### Characterization of the Tokenized Securities and Tokens under Article 8

Settlement finality of transfers of the Tokenized Securities contemplated in the PoC would generally be determined under Article 8 of New York's implementation of the UCC, which governs "investment securities." Under revisions to Article 8 approved in 1994 and enacted in New York in 1997, Article 8 contains largely separate rules, including with respect to finality of transfers, for the "direct holding" system, on the one hand, and the "indirect holding" system, on the other.[214] The direct holding system generally refers to arrangements where "beneficial owners of securities have a direct relationship with the issuer of the securities"; in contrast, in the indirect holding system, "the issuer's records do not show the identity of all the beneficial owners," but instead show that the securities are held by a depository, and the "depository's records in turn show the identity of the banks or brokers who are its members, and the records of those securities intermediaries show the identity of their customers."[215]

The Article 8 rules applicable to the Tokenized Securities would be those applicable to the indirect holding system. The direct holding system applies where a person directly owns a "security" in certificated or uncertificated form. This would be the case, for example, where an issuer has issued bonds, and a person (which may be a CSD) is the registered owner of one or more certificates representing those bonds (if the bonds were issued as a certificated security in registered form) or the person is the registered owner of the bonds (if the bonds were issued as an uncertificated security). However, each use case evaluated in the PoC assumes that RSN Members and, if applicable, their customers or participants would instead hold interests in securities through one or more intermediaries in a tiered system.[216] This method of holding securities is the indirect holding system.

The Article 8 rules applicable to the indirect holding system apply to "security entitlements"—that is, the rights and property interest of an "entitlement holder" with respect to a "financial asset" held through a "securities account" at a "securities intermediary." Article 8 defines these terms as follows:

- A "security entitlement" is a package of rights and property interests that an entitlement holder has with respect to a financial asset, as specified in Part 5 of Article 8.[217] The rights of a person with respect to a security entitlement may be exercised only against or through the securities intermediary, not directly against the issuer of the security. For example, if a person holds a security entitlement with respect to an IG bond, that security entitlement provides the person with the right to receive from the securities intermediary any payment or distribution on the IG bond paid by the issuer and received by the securities intermediary; the person does not have a right to receive the payment or distribution from the issuer.[218] Similarly, the person may not directly exercise voting or other rights with respect to the IG bond; instead the person has the right to direct its securities intermediary as to how to exercise voting or other rights under the IG bond.[219]

214 These revisions to Article 8, and related amendments to Article 9 and other articles, were approved by the sponsors of the UCC, the American Law Institute and the Uniform Law Commission, in 1994; see also 1997 N.Y. Sess. Laws ch. 566 (New York's enactment of these revisions).

215 See Uniform Commercial Code, Revised Article 8, Investment Securities (with Conforming and Miscellaneous Amendments to Articles 1, 3, 4, 5, 9 and 10) 1994 Official Text, prefatory note.

216 Although the RSN Members or their customers or participants may be deemed to own or hold the tokens that are held in their wallets on an RSN Member's Partition, this factor does not implicate Article 8 because the tokens themselves would not be "securities" for purposes of Article 8. Consistent with Official Comment 18 to Section 8-102, which would be added in the UCC amendments adding proposed Article 12 to the UCC, the tokens contemplated in the PoC would not represent obligations of any issuer or shares, participations or other interests in any issuer or in property or an enterprise of any issuer, nor would they satisfy any of the other prongs of the definition of "investment security" in Article 8. If the tokens were to be viewed as "controllable electronic records" under Article 12, then Article 12, if enacted in New York would govern transactions in the tokens. For a discussion of the application of Article 12, see below in this Section 4.

217 N.Y. U.C.C. Law § 8-102(17).

218 Id. § 8-505; see id. cmt. 1 ("One of the core elements of the [indirect holding system] is that the securities intermediary passes through to the entitlement holders the economic benefit of ownership of the financial asset, such as payments and distributions made by the issuer.").

219 Id. § 8-506. The rights and the property interest attaching to a security entitlement also include the following: the security entitlement is not the property of the securities intermediary and is not generally subject to claims of the securities intermediary's creditors; the securities intermediary must maintain the applicable financial asset in the same quantity as all security entitlements it has established with respect to the financial asset; the securities intermediary must transfer or dispose of a position in the financial asset as directed by the entitlement holder; and the securities intermediary must act at the direction of an entitlement holder to change a security entitlement to any other available form of securities holding. See id. §§ 8-503, -504, -507, -508.

- A "financial asset" generally includes a security; an obligation, share, participation or interest of certain types dealt in or traded in financial markets or recognized as a medium for investment; or any property held by a securities intermediary for another person in a securities account if the securities intermediary expressly agrees to treat the property as a financial asset under Article 8.[220]

- An "entitlement holder" is the "person identified in the records of a securities intermediary as the person having a security entitlement against the securities intermediary" or that otherwise acquires a security entitlement pursuant to Article 8.[221]

- A "securities account" is an "account to which a financial asset is or may be credited in accordance with an agreement under which the person maintaining the account undertakes to treat the person for whom the account is maintained as entitled to exercise the rights that comprise the financial asset."[222]

- A "securities intermediary" includes a "clearing corporation" (including a Federal Reserve Bank or a person that is registered as a "clearing agency" under the Exchange Act or that is exempt from registration, but the relevant activities of which are subject to regulation by a Federal or state authority) or a bank, broker-dealer or other person that maintains securities accounts in the ordinary course of business and is acting in that capacity.[223]

Article 8, through these terms, contemplates that interests in securities may be held through multiple tiers of securities intermediaries.[224] For example, a CSD that is a registered holder of one or more certificates representing an IG bond would be a securities intermediary for its members. Each member of the CSD (e.g., a commercial bank or broker-dealer) could hold interests in that IG bond, whether for its own account or for its customers. The interest of each such member would be a security entitlement against the CSD with respect to all of the interests the member has in that IG bond. To the extent the member holds the interests for its customers for whom it maintains securities accounts, it would itself be acting as a securities intermediary, and each customer holding an interest in the IG bond in such a securities account would have a security entitlement against the member with respect to that interest. The customers could themselves also be securities intermediaries with respect to their customers, and this structure could continue through multiple additional tiers.

As described below, the Cross-Network Intraday Repo Settlement Use Case would involve commercial banks that hold U.S. Treasury securities at a Federal Reserve Bank. Article 8 does not directly govern the holding and transfer of U.S. Treasury securities on the books of a Federal Reserve Bank. Instead, the rights and obligations of the United States and the Federal Reserve Bank and the rights of a person against the United States and the Federal Reserve Bank with respect to U.S. Treasury securities held in "book-entry form" at a Federal Reserve Bank are determined pursuant to the U.S. Treasury's TRADES Regulations, other applicable U.S. Treasury regulations and operating circulars of the Federal Reserve Banks.[225] The TRADES Regulations are "based in large part" on Article 8, as revised in 1994 (i.e., the version of Article 8 in effect in New York). The TRADES Regulations also generally adopt the same terms, including security entitlement, entitlement holder, securities account and securities intermediary, as apply under Article 8 to the indirect holding system.[226]

Although the TRADES Regulations reflect certain differences from Article 8,[227] these regulations reflect a "[l]imited scope of Federal preemption."[228] Pursuant to the TRADES Regulations, various matters applicable to a security entitlement against a Federal Reserve Bank with respect to a U.S. Treasury security are governed by the law of the Federal Reserve Bank's jurisdiction, to the extent not inconsistent with the regulations.[229] The law of a Federal Reserve Bank's jurisdiction may be agreed by contract,[230] and we assume that the RSN Members, including any Federal Reserve Bank, would agree in the RSN Rulebook to New York law as the governing law. Accordingly, under the TRADES Regulations, except where expressly preempted by the regulations or an operating circular of the Federal Reserve Banks, and assuming the U.S. Treasury would

220 Id. § 8-102(a)(9).

221 Id. § 8-102(a)(7).

222 Id. § 8-501(a).

223 Id. § 8-102(a)(14); see also id. § 8-102(a)(5) (defining "clearing corporation").

224 See Uniform Commercial Code, Revised Article 8, Investment Securities (with Conforming and Miscellaneous Amendments to Articles 1, 3, 4, 5, 9 and 10) 1994 Official Text, prefatory note (describing the indirect holding system as involving securities "held through tiers of securities intermediaries").

225 31 C.F.R. § 357.10(a). The TRADES Regulations are codified at 31 C.F.R. pt. 357, subpart B.

226 See id. § 357.2.

227 For example, as described above, under Article 8, a holder of a security entitlement against a securities intermediary with respect to a security does not have a direct claim against the issuer of the security. In contrast, an entitlement holder holding a security entitlement against a Federal Reserve Bank with respect to a U.S. Treasury security has a direct claim against the United States for principal and interest. See id. app. B, Section 357.2 Definitions, para. (d).

228 Id. app. B, Section 357.11 Law Governing Other Interests, para. (b).

229 See id. § 357.11(a).

230 See id. § 357.11(b)(1)-(2).

agree that a Federal Reserve Bank's Fed Securities Partition should be considered the books of the Federal Reserve Bank for purposes of the regulations, all of the following would be governed by New York law, including Article 8: the rights and duties that arise out of a security entitlement, when a person acquires a security entitlement against the Federal Reserve Bank, the effects of the acquisition of a security entitlement and the perfection of a security interest in a security entitlement.[231] These matters include the principal topics relevant to our analysis of the finality of settlement for the security transfers through the RSN contemplated in the PoC. Therefore, except as otherwise noted, we discuss the holding and transfer of U.S. Treasury securities on the books of a Federal Reserve Bank as though they were subject to Article 8 in the same manner as the holding and transfer of any other security entitlement subject to New York law.

The manner in which securities would be held and transferred in the three use cases that involve securities transfers also illustrate the application of the Article 8 terms summarized above. The following describes, for each of these use cases, both the security entitlements that are contemplated and the securities transfers that would be completed.

### Client-to-Client IG Bond DvP Settlement Use Case

This use case contemplates a transfer of an IG bond to a corporate customer (buyer) of one broker-dealer (Broker-Dealer 1) from a corporate customer (seller) of another broker-dealer (Broker-Dealer 2). Each of Broker-Dealer 1 and Broker-Dealer 2 would be an RSN Member.[232] The securities transfer would be made against payment, as described above under "Payment Settlement."

Before the transfer, Broker-Dealer 2 would have credited the seller's positions in the applicable IG bond to a securities account of the seller. The seller would therefore be an entitlement holder of its securities intermediary, Broker-Dealer 2, and would have a security entitlement against Broker-Dealer 2 with respect to the bond (which would be a financial asset).[233] Tokens minted on Broker-Dealer 2's Partition would reflect any part of the seller's security entitlement against Broker-Dealer 2 that would be available for transfer through the RSN.

In addition, for purposes of this use case, Broker-Dealer 2 is assumed to be a member of the CSD at which the IG bonds are held and Broker-Dealer 2 would hold positions in the bonds it holds for customers in a securities account at the CSD. Broker-Dealer 2 would therefore be an entitlement holder of its securities intermediary, the CSD, and would have a security entitlement against the CSD with respect to the bond.[234] Tokens would have been minted on the CSD's Partition to reflect any part of the broker-dealer's security entitlement against the CSD with respect to the bond that would be available for transfer through the RSN.

The transfer of an amount of the IG bond from the seller to the buyer would be effected by means of updating the RSN Ledger to reflect the transfer and the following steps, as would be provided in the RSN Rulebook:

- tokens within the CSD's Partition reflecting Broker-Dealer 2's security entitlement relating to the amount of the bond being transferred would be burned, thereby extinguishing Broker-Dealer 2's security entitlement against the CSD to the extent of the amount of the bond being transferred;
- tokens within Broker Dealer 2's partition reflecting the seller's security entitlement relating to the amount of the bond being transferred would be burned, thereby extinguishing the seller's security entitlement against Broker-Dealer 2 to the extent of the amount of the bond being transferred;
- tokens within the CSD's partition reflecting Broker-Dealer 1's security entitlement relating to the amount of the bond being transferred would be minted, thereby crediting Broker-Dealer 1 with a security entitlement against the CSD with respect to the bond in the amount being transferred; and

231 Id. § 357.11(a).

232 The relevant buyer and seller in this use case could also be transferring the applicable securities to and from accounts at commercial banks or could be broker-dealers trading for their own accounts. For purposes of the description in this Report, we assume that the buyer and seller are transferring the applicable securities to and from accounts at broker-dealers, but this assumption does not affect the conclusions in this Report regarding the ability of the RSN, in respect of this use case, to provide for settlement finality upon the occurrence of the settlement event.

233 That security entitlement could relate both to interests in the bond that would be available for transfer through the RSN, and to interests held in some other manner. Under Article 8, a customer or participant of a securities intermediary with a security entitlement in a financial asset (such as a particular issuance of securities) has a *pro rata* property interest in all interests in that financial asset held by the securities intermediary. N.Y. U.C.C. Law § 8-503(a), (b). The customer's or participant's interest is not limited to, nor is the customer or participant given priority with respect to, assets held by the securities intermediary in any specific location. As a result, securities held by a securities intermediary through the RSN for purposes of effectuating a transaction on behalf of any particular customer or participant do not "belong" to that customer or participant any more than to any other.

234 If Broker-Dealer 2 were not a member of the CSD and/or did not hold the relevant securities in a securities account at the CSD, there would be one or more additional securities intermediaries between Broker-Dealer 2 and the CSD. The presence or absence of such additional securities intermediaries would not affect the analysis or conclusions with respect to Article 8 in this Report, and therefore is not addressed further.

- tokens within Broker-Dealer 1's partition reflecting the buyer's security entitlement relating to the amount of the bond being transferred would be minted, thereby crediting the buyer with a security entitlement against Broker-Dealer 1 with respect to the bond in the amount being transferred.[235]

These steps are expected to be completed simultaneously at the "settlement event" for this use case. Under the RSN Rulebook, the settlement event would also be the same moment at which the related payment from the buyer to the seller for the securities becomes final, as discussed above under "Payment Settlement."

After the transfer is completed, the buyer's security entitlement against Broker-Dealer 1 with respect to the applicable IG bond would reflect the amount transferred to the buyer, and Broker-Dealer 1's ledger within its RSN Partition would be updated to reflect all or part of this security entitlement (i.e., at least the portion corresponding to the transferred amount) by means of tokens minted on Broker-Dealer 1's Partition. Broker-Dealer 1's security entitlement against the CSD with respect to the bond would similarly reflect the amount transferred to Broker-Dealer 1 for the benefit of the buyer, and all or part of this security entitlement would be reflected on the CSD's ledger within its RSN Partition by tokens on the CSD's Partition.

### Centrally Cleared Dealer-to-Dealer DvP Settlement Use Case

This use case contemplates the sale of a U.S. Treasury security by one commercial bank (seller) to another commercial bank (buyer) that is cleared through a CCP. Following execution of the transaction between the buyer and seller, the transaction would be submitted to the CCP for matching and clearing, and novated, such that the original contract would be replaced with two new contracts, one in which the seller sells the U.S. Treasury security to the CCP, and the other in which the CCP sells the U.S. Treasury security to the buyer.

To settle these two new trades, the seller would transfer the U.S. Treasury security from its account at a clearing bank to an account of the CCP at the clearing bank. The CCP would then immediately transfer the security from its account at the clearing bank to the buyer, which would also hold the security in its account at the clearing bank. These securities transfers would be made against payment, as described above under "Payment Settlement." Both the seller and the buyer would be members of the CCP.

Before the transfer, the clearing bank would have credited the seller's positions in the applicable U.S. Treasury security to a securities account of the seller. The seller would therefore be an entitlement holder of its securities intermediary, the clearing bank, and would have a security entitlement against the clearing bank with respect to the security (which would be a financial asset). Tokens would have been minted on the clearing bank's Partition to reflect any part of the seller's security entitlement against the clearing bank that would be available for transfer through the RSN. The clearing bank would likely hold the relevant U.S. Treasury security in a securities account at a Federal Reserve Bank (and therefore would have a security entitlement against the Federal Reserve Bank, its securities intermediary). However, because no transfer of securities by or to the clearing bank is contemplated in this use case, it is not necessary to consider further how the clearing bank would hold interests in the applicable security and no tokens would need to be minted on a Fed Securities Partition reflecting these interests of the clearing bank.

The transfer of an amount of the U.S. Treasury security from the seller to the buyer would be effected by means of updating the RSN Ledger to reflect the transfer and the following steps, as would be provided in the RSN Rulebook:

- tokens within the clearing bank's Partition reflecting the seller's security entitlement relating to the amount of the security being transferred would be burned, thereby extinguishing the seller's security entitlement against the clearing bank to the extent of the amount of the security being transferred;

- tokens within the clearing bank's Partition reflecting the CCP's security entitlement relating to the amount of the security being transferred would be minted, thereby crediting the CCP with a security entitlement against the clearing bank with respect to the security in the amount being transferred;

- tokens minted in the previous step within the clearing bank's Partition would be burned, thereby extinguishing the CCP's security entitlement against the clearing bank to the extent of the amount of the security being transferred; and

235 In connection with the transfer, each of Broker-Dealer 2 and Broker-Dealer 1 would need to reflect in its respective records the extinguishment and issuance, respectively, of a security entitlement at the CSD, the seller would need to reflect in its records the extinguishment of a security entitlement at Broker-Dealer 2 and the buyer would need to reflect in its records the issuance of a security entitlement at Broker-Dealer 1. In addition, each of Broker-Dealer 2 and Broker-Dealer 1 would need to reflect the change to the securities credited to its respective customer's securities account. As discussed in Section 7, we believe that the ledger maintained by each broker-dealer within its RSN Partition could facilitate compliance with the SEC's requirements with respect to customer-related recordkeeping; however, it is unclear whether the SEC would accept such records. Moreover, the PoC would not change or have an effect on RSN Members' compliance with Rule 15c3-3 or the Regulation T and FINRA Rule 4210 margin requirements.

- tokens within the clearing bank's Partition reflecting the buyer's security entitlement relating to the amount of the security being transferred would be minted, thereby crediting the buyer with a security entitlement against the clearing bank with respect to the security in the amount being transferred.[236]

These steps are expected to be completed simultaneously at the "settlement event" for this use case. Under the RSN Rulebook, the settlement event would also be the same moment at which each of the related payments from the buyer to the CCP and from the CCP to the seller becomes final, as discussed above under "Payment Settlement."

After the transfer is completed, the buyer's security entitlement against the clearing bank with respect to the applicable U.S. Treasury security would reflect the amount transferred to the buyer, and all or part of this security entitlement (i.e., at least the portion corresponding to the transferred amount) would be reflected by tokens on the clearing bank's Partition.

### Cross-Network Intraday Repo Settlement

This use case contemplates a transfer, for the start leg of a repurchase agreement, of a U.S. Treasury security from one commercial bank (seller) holding the security at a Federal Reserve Bank to another commercial bank (buyer) that would hold the security at the same Federal Reserve Bank. The end or "off" leg of the repurchase agreement would be a separate, corresponding transfer of the security in the other direction, from buyer to seller, also on the books of the Federal Reserve Bank. These securities transfers would, in each case, be made against payment, as described above under "Payment Settlement."

Before the start leg, the Federal Reserve Bank would have credited the seller's positions in the applicable U.S. Treasury security to a securities account of the seller. The seller would therefore be an entitlement holder of its securities intermediary, the Federal Reserve Bank, and would have a security entitlement against the Federal Reserve Bank with respect to the security. Tokens would have been minted on the Federal Reserve Bank's Fed Securities Partition to reflect any part of the seller's security entitlement against the Federal Reserve Bank that would be available for transfer through the RSN.

In the start leg, the transfer of the U.S. Treasury securities from the seller to the buyer would be effected by means of updating the RSN Ledger to reflect the transfer and the following steps, as would be provided in the RSN Rulebook:

- tokens within the Federal Reserve Bank's Fed Securities Partition reflecting the seller's security entitlement relating to the amount of the security being transferred would be burned, thereby extinguishing the seller's security entitlement against the Federal Reserve Bank to the extent of the amount of the security being transferred; and

- tokens within the Federal Reserve Bank's Fed Securities Partition reflecting the buyer's security entitlement relating to the amount of the security being transferred would be minted, thereby crediting the buyer with a security entitlement against the Federal Reserve Bank with respect to the security in the amount being transferred.[237]

These steps are expected to be completed simultaneously at the "settlement event" for the start leg of the transaction in this use case. Under the RSN Rulebook, this settlement event would also be the same moment at which the related payment from the buyer to the seller under the repurchase agreement becomes final, as discussed above under "Payment Settlement."

The end leg of the repo would be the reverse of the start leg. In the end leg, the transfer of the U.S. Treasury securities from the buyer to the seller would be effected by means of updating the RSN Ledger to reflect the transfer and the following steps, as would be provided in the RSN Rulebook:

- tokens within the Federal Reserve Bank's Fed Securities Partition reflecting the buyer's security entitlement relating to the amount of the security being transferred would be burned, thereby extinguishing the buyer's security entitlement against the Federal Reserve Bank to the extent of the amount of the security being transferred; and

- tokens within the Federal Reserve Bank's Fed Securities Partition reflecting the seller's security entitlement relating to the amount of the security being transferred would be minted, thereby crediting the seller with a security entitlement against the Federal Reserve Bank with respect to the security in the amount being transferred.[238]

These steps are expected to be completed simultaneously at the "settlement event" for the end leg of the transaction in this use case. Under the RSN Rulebook, this settlement event would also be the same moment at which the related payment from the seller to the buyer under the repurchase agreement becomes final, as discussed above under "Payment Settlement."

236 In connection with the transfer, the seller, the buyer and the CCP would each need to reflect in its respective records each issuance and extinguishment, as applicable, of its respective security entitlement at the clearing bank.

237 In connection with the transfer, the seller and the buyer would each reflect in its respective records the extinguishment and issuance, respectively, of its respective security entitlement at the Federal Reserve Bank.

238 In connection with the transfer, the buyer and the seller would each reflect in its respective records the extinguishment and issuance, respectively, of its respective security entitlement at the Federal Reserve Bank.

## Settlement Finality of Securities Transfers

### Relevant Provisions

With respect to the indirect holding system, Article 8 sets the point of settlement finality of a securities transaction as when an entitlement holder "acquires" a security entitlement. Under Article 8, "an action based on an adverse claim to a financial asset . . . may not be asserted against a person who acquires a security entitlement . . . for value and without notice of the adverse claim."[239] This provision implements a "finality principle,"[240] in that once a person has acquired a security entitlement, "someone else cannot take it away on the basis of assertion that the transaction which the security entitlement was created involved a violation of the claimant's rights."[241]

Under Article 8, a person may acquire a security entitlement with respect to a security in multiple ways, one of which is that a securities intermediary "indicates by book entry that [the security] has been credited to the person's securities account."[242] According to the official comments to Article 8, this method of acquiring a security entitlement is "the most important," "reflecting a basic assumption of the indirect holding system that once a securities intermediary has acknowledged that it is carrying a position in a financial asset for its customer or participant, the intermediary is obligated to treat the customer or participant as entitled to the financial asset."[243] In addition, a person may acquire a security entitlement against a securities intermediary if either (1) the securities intermediary "receives [the security] from the person or acquires [the security] for the person and, in either case, accepts it for credit to the person's securities account" or (2) the securities intermediary "becomes obligated under other law, regulation, or rule to credit [the security] to the person's securities account."[244]

Article 8 would directly govern all securities transfers through the RSN except for a transfer involving a U.S. Treasury security on the books of a Federal Reserve Bank. As described above, such a transfer would also need to consider the TRADES Regulations and operating circulars of the Federal Reserve Banks.

## Application to the Securities Transfers Through the RSN Contemplated in the PoC

Upon the occurrence of the settlement event for each securities transfer through the RSN contemplated in the PoC, the RSN Ledger would be updated and appropriate tokens would be burned and minted on the Partitions of one or more RSN Members to record the transfer. The Partitions on which these tokens would be burned or minted would be those of RSN Members that are securities intermediaries, including (depending on the use case) a Federal Reserve Bank, CSD, clearing bank and/or broker-dealer. Payment against the securities transfer would, in the use cases evaluated in the PoC, also occur through the RSN and all payment instructions for that payment would be released upon the occurrence of the settlement event.

The RSN Rulebook would include provisions addressing what would be required for the settlement event to occur, what actions would occur at the settlement event and the legal effect of those actions. To enable final and irrevocable settlement of the securities transfers to occur at the settlement event, we expect these provisions would likely include the following:

- *Simultaneity*: All of the actions that would occur at the settlement event—including burning or minting tokens to record a securities transfer and releasing payment instructions relating to the corresponding payment[245]—would occur at the same time or would not occur at all. This requirement would enable "atomic" settlement, as determined by the RSN FMI.

- *Approval*: The actions that would occur at the settlement event would occur only if all the RSN Members involved in the transaction (including any bank, broker-dealer, Federal Reserve Bank, CCP, CSD or clearing bank) have approved the transaction via cryptographic approval sent to the RSN FMI after the transaction—including both the contemplated securities and funds transfers—has been proposed by the RSN FMI. The applicable RSN Members would approve a transaction only after performing their compliance checks. Assuming all necessary RSN Members approve the transaction, the settlement event would occur shortly after the last RSN Member required to approve the transaction provides that approval.

239 N.Y. U.C.C. Law § 8-502.

240 James Stevens Rogers, *Policy Perspectives on Revised U.C.C. Article 8*, 43 U.C.L.A. L. Rev. 1431, 1469 (1996) (the author was the reporter to the drafting committee for the 1994 revisions to Article 8).

241 N.Y. U.C.C. Law § 8-502 cmt. 1.

242 Id. § 8-501(b)(1).

243 Id. § 8-501 cmt. 2.

244 Id. § 501(b)(2)-(3).

245 As discussed above, there would be no conditions to payments in any of these instructions. Instead, to enable DvP settlement, the payments would be settled at the point provided in the RSN Rulebook, which would be the same point as when the securities transfers are settled.

- *Actions upon occurrence of settlement event*: Upon the occurrence of the settlement event, the RSN FMI would simultaneously update the RSN Ledger, and the ledgers maintained within the Partitions of the relevant RSN Members, to record (1) the completed status of the securities transfer and corresponding payment, and (2) a timestamp of the update to the RSN Ledger.

- *Effect of burning a token*: The burning of a token on an RSN Member's Partition in relation to a security entitlement of a customer or participant of that RSN Member would extinguish the customer's or participant's security entitlement to the extent of the token burned.[246]

- *Effect of minting a token*: An RSN Member minting a token on its Partition to record the transfer of a security to that RSN Member's participant or customer would have the effect of crediting the transferred security to the participant's or customer's securities account at that RSN Member.

Accordingly, under the RSN Rulebook, for any securities transfer processed through the RSN, the burning of a token on an RSN Member's Partition upon the occurrence of the settlement event would result in the extinguishment of the security entitlement of the applicable transferor of securities to the extent of the token burned. The minting of a token on an RSN Member's Partition would be an "indicat[ion] by book entry that [the transferred security] ha[d] been credited to [the transferee's] securities account" at that RSN Member.[247] Article 8 does not restrict how such a book entry is made, and the official comments to Article 8 make clear that it does not "specify exactly what accounting, record-keeping, or information transmission steps suffice" to indicate a securities intermediary has credited a financial asset to a securities account; instead, the method of doing so "is left to agreement, trade practice, or rule in order to provide the flexibility necessary to accommodate varying or changing accounting or information processing systems."[248]

Therefore, under Article 8, upon the occurrence of the settlement event, at which time the RSN Ledger would be updated and a token would be minted on the applicable RSN Member's Partition, the transferee of the applicable security would acquire a security entitlement with respect to the transferred security.[249] Under Article 8, upon the occurrence of the settlement event, the transfer of the security to the transferee therefore would be final and irrevocable.[250] This would be the same point at which the corresponding payments would be final, enabling DvP settlements through the RSN.

As described above, for a transfer of U.S. Treasury securities on the books of a Federal Reserve Bank, finality of securities transfers through the RSN would also need to consider the TRADES Regulations and operating circulars of the Federal Reserve Banks. To support the finality of securities settlements through the RSN, a Federal Reserve Bank that is an RSN Member could implement provisions in an operating circular with respect to the finality of the settlement event for transfers through the RSN. These provisions could address, for example, the role of the tokens recorded on a Fed Securities Partition and the effect of burning and minting tokens on that Partition. These provisions could, for example, be analogous to the principles in the Federal Reserve Banks' existing Operating Circular No. 7, which defines the point of finality for transfers of securities through the Fedwire® Securities Service.[251] Similar to Article 8, this operating circular sets the point of finality as when appropriate book entries are made to credit the security to the transferee's securities account at a Federal Reserve Bank. The operating circular also requires that appropriate debits be made to

246 That is, if an entitlement holder were to have a security entitlement with respect to a security and only part of the entitlement holder's position in the security were transferred, the entitlement holder would retain a security entitlement with respect to the security, except to the extent of the amount transferred.

247 N.Y. U.C.C. Law § 8-501(b)(1).

248 Id. § 8-501 cmt. 2.

249 The minting of the token on an RSN Member's Partition could be completed automatically by the RSN FMI upon the occurrence of the settlement event. Even if a token were not to be minted, under the provision of Article 8 that addresses when a person acquires a security entitlement, when a securities intermediary receives a financial asset and accepts it for credit to the customer's securities account, the customer acquires a security entitlement whether or not the securities intermediary makes the relevant book entry. Id. § 8-501(b)(2). The RSN Rulebook would likely provide that, upon the occurrence of the settlement event for a transaction, an RSN Member acting as a securities intermediary in the transaction would be deemed, as of the settlement event, to accept a financial asset it receives through the RSN for credit to the securities account of the applicable customer or participant of the RSN Member.

250 As noted above, Article 8 protects a person from an adverse claim to an acquired security entitlement only if the person acquires that entitlement "for value and without notice of the adverse claim." Id. § 8-502. In the use cases evaluated in the PoC, all securities transfers that would be processed through the RSN would be against payment, and therefore for "value." See id. § 1-204 (defining "giv[ing] value for rights" broadly to include, among other things, "accepting delivery under a preexisting contract or purchase" or "in return for any consideration sufficient to support a simple contract"). We assume for purposes of this discussion that a transferee acquiring securities through the RSN would not have notice of an adverse claim that could be asserted against it with respect to the transferred securities.

251 Federal Reserve Banks, Operating Circular No. 7, Fedwire® Securities Service, § 9.2.1 (May 1, 2024); see also id. §§ 9.1.1-9.1.2 (setting out when book-entry securities may be credited or debited to a bank's securities account at a Federal Reserve Bank).

the transferor's securities account at a Federal Reserve Bank and, if a securities transfer is made against payment on the books of a Federal Reserve Bank, that appropriate debits and credits be made to the transferee's and transferor's master accounts to effect the payment. These finality rules generally align with what would occur for a securities transfer through the RSN, in which the burning and minting of tokens on the Federal Reserve Bank's Fed Securities Partition upon the occurrence of the settlement event would be book entries to debit and credit the transferor's and transferee's securities account at the Federal Reserve Bank. Also, upon the occurrence of the settlement event, debits and credits would be made to the transferor's and transferee's respective master accounts to effect the corresponding payment.

Additionally, with respect to transfers that would not occur on the books of a Federal Reserve Bank, Article 8 provides that a rule of a "clearing corporation" may supersede the otherwise applicable provisions of Article 8 and that such a rule is effective even if it "affects another party who does not consent to the rule."[252] As defined in Article 8, a clearing corporation would include, among others, a Federal Reserve Bank or any clearing agency registered under the Exchange Act, which would likely include any CCP or CSD acting in the capacities contemplated in the use cases evaluated in the PoC. Therefore, a CCP or CSD that is an RSN Member could support finality of securities transfers through the RSN by updating its rules to include provisions addressing similar points to those discussed above for a Federal Reserve Bank operating circular with respect to transfers through the RSN involving that CCP or CSD.[253] Although these changes could help to clarify how these rules apply to the RSN, it would be critical that all rules governing transactions through the RSN, including those adopted by a Federal Reserve Bank, CCP or CSD and those in the RSN Rulebook, are consistent to prevent any interference with the operation of the RSN and the finality of transactions processed through the system.

Although the RSN Ledger would be the definitive record of the securities positions transferred through the RSN, each RSN Member may be required to update its "off-chain" books and records to reflect transfers completed through the RSN.[254] We have been informed by the Working Group that, depending on an RSN Member's systems and processes, these updates may not be performed immediately, but may instead be processed as part of existing "end-of-day" reconciliations. Because each transaction would be final and irrevocable upon the occurrence of the settlement event for that transaction, any update to off-chain, non-definitive books and records would likely be considered solely a ministerial reconciliation. A delay, or even a failure, to make such an off-chain update following the settlement event could not disrupt the finality of a settled transaction.[255]

252 N.Y. U.C.C. Law § 8-211.

253 The RSN FMI could be a "clearing corporation" under Article 8 if it were required to register as a clearing agency under the Exchange Act or were "require[d] . . . to register as a clearing agency under the federal securities laws but for an exclusion or exemption from the registration requirement" and "its activities as a clearing corporation, including promulgation of rules, [were] subject to regulation by a federal or state governmental authority." Id. § 8-102(5)(i), (iii). In that case, the RSN Rulebook could also, if determined appropriate, supersede otherwise applicable provisions of Article 8, even if the applicable rule affected a party who did not consent. Id. § 8-111.

254 Off-chain reconciliation of books and records could potentially be required under SEC and FINRA recordkeeping rules, as described further in Section 7. In any use case of the RSN in which one or more banks or broker-dealers are acting on behalf of their respective customers, the question could arise as to whether a delay in updating the record of the relevant customers' accounts to reflect a settled transaction could affect the claim of a customer against its bank or broker-dealer in the unlikely event of the failure of the bank or broker-dealer or its customer. As noted in the following footnote, ministerial updates should not be barred, including under the automatic stay under the U.S. Bankruptcy Code. Furthermore, as described in footnote 250 above, the RSN Rulebook would likely provide that, upon the occurrence of the settlement event for a transaction, an RSN Member acting as a securities intermediary in the transaction would be deemed, as of the settlement event, to accept a financial asset it receives through the RSN for credit to the securities account of the applicable customer or participant of the RSN Member.

255 The failure of, and the imposition of an automatic stay under the U.S. Bankruptcy Code with respect to, an RSN Member's customer or participant in the time between the settlement event for a transaction and any required update to off-chain books and records to reflect the settled transaction should not generally affect the ability of an RSN Member to make that off-chain update. Updating records that do not affect any property interest of a customer or participant should not be subject to the automatic stay. See 11 U.S.C. § 362(a); cf. e.g., *Citizens Bank of Md.* v. *Strumpf*, 516 U.S. 16, 21 (1995) (describing that the automatic stay did not apply where a bank put a hold in place that neither "took something from" the applicable bankruptcy petitioner nor "exercised dominion over property that belonged" to that party); *Rexnord Holdings, Inc.* v. *Bidermann*, 21 F.3d 522, 527-28 (2d Cir. 1994) (concluding that the automatic stay does not apply, in the context of legal proceeding against a bankruptcy petitioner, to "ministerial" acts, including filing a signed judgment on the docket where the judgment was entered before the automatic stay came into effect).

### Implications for Granting a Perfected Security Interest

We were asked to assess whether the tokenization of a security entitlement in the RSN in the form of a Tokenized Security, as contemplated in the PoC, would affect the ability of a customer or participant of an RSN Member to grant a perfected security interest in that Tokenized Security.[256] We assume for purposes of this section that the applicable customer or participant has entered into a written security agreement with a secured party, under which a security interest has attached to a Tokenized Security that the customer or participant holds at the applicable RSN Member.[257]

Article 9 of the UCC, as enacted in New York, governs the perfection of a security interest in "investment property," which includes a security entitlement.[258] The perfection of a security interest in investment property requires either the filing of a financing statement with respect to the collateral[259] or "control" of the collateral.[260] A security interest in investment property perfected by control takes priority over a security interest perfected by filing.[261]

The tokenization of a security entitlement in the form of a Tokenized Security would not prevent a secured party from perfecting a security interest in that Tokenized Security by filing a financing statement. A financing statement must provide limited information, including the name of the debtor and the name of the secured party (or a representative), and must "indicate[] the collateral covered by the financing statement."[262] For a security entitlement, the description of collateral is sufficient if it references the security entitlement or the underlying security.[263] The tokenization of security entitlements, as contemplated in the PoC, would be used only as a mechanism to achieve changes in ledgers maintained by RSN Members, and should not change the nature of the security entitlements recorded on those ledgers, or the status of those security entitlements under Article 8 or Article 9 of the UCC. Furthermore, the use of Tokenized Securities in the RSN would not necessarily change the way in which the security entitlement would be described in a financing statement, although the precise wording of the financing statement may depend on the way in which the RSN Member holding the account to which the Tokenized Securities were credited structures and titles its customers' accounts.

The tokenization of securities, as contemplated in the PoC, also would not prevent a secured party from perfecting a security interest by obtaining control. A secured party may obtain control over a security entitlement in three ways: (1) the secured party may become the entitlement holder; (2) the securities intermediary at which the security entitlement is held may agree to comply with orders ("entitlement orders") originated by the secured party without further consent by the entitlement holder; or (3) another person may have control of the security entitlement on behalf of the secured party.[264] According to the official comments to the UCC, the "key to the control concept" is that a secured party "has the ability to have the securities sold or transferred without further action by the" applicable debtor.[265]

Although specific functionality was not tested in the PoC with respect to these methods of obtaining control over a Tokenized Security for purposes of perfecting a security interest, we believe the RSN could enable any of these methods of obtaining control. If a security entitlement were credited to an RSN Member on the

256 We assume that the security interest is not granted in U.S. Treasury securities held in a securities account at a Federal Reserve Bank.

257 Under Article 9 of the UCC, as enacted in New York, creation and attachment of a security interest in a security entitlement generally requires (1) value be given for the security interest, (2) the grantor have rights in the collateral or the power to transfer rights in the collateral to a secured party and (3) a security agreement that creates or provides for a security interest, and either the security agreement must be signed by the grantor or the secured party must have "control" of the collateral. N.Y. U.C.C. Law § 9-213(b). For a security entitlement, a security interest may also arise as a "broker's lien," due to a person buying a financial asset through a securities intermediary, being obligated to pay the purchase price at the time of the purchase and the securities intermediary crediting the financial asset to the buyer's securities account before the buyer pays the purchase price. Id. § 9-206(a) & cmt. 2. This provision would be inapplicable to the use cases involving securities transfers evaluated in the PoC, each of which would involve a simultaneous transfer of securities and payment of the purchase price.

258 See id. § 9-102(a)(49) (defining "investment property" as "a security, whether certificated or uncertificated, security entitlement, securities account, commodities contract, or commodity account").

259 Id. § 9-312(a).

260 Id. § 9-314(a).

261 Id. § 9-328(a).

262 Id. § 9-502(a).

263 See id. § 9-504 (providing that a description of collateral sufficient with respect to a security agreement under Section 9-108 is sufficient in a financing statement); see also id. § 9-108 cmt. 4 ("[A] security agreement intended to cover a debtor's 'security entitlements' is sufficient if it refers to the debtor's 'securities.'"). A financing statement may also reference a securities account to describe all of the security entitlements in that account. Id.

264 See id. § 9-106(a) (providing that control of a security entitlement for purposes of Article 9 is to be determined as provided in the applicable provision of Article 8); see also id. § 8-106(d) (the provision of Article 8 addressing "control" of a security entitlement).

265 Id. § 8-106 cmt. 7.

ledger within the Partition maintained by that RSN Member, that RSN Member would become the entitlement holder with respect to the security entitlement. If the RSN Member were the secured party, clause (1) of the definition of control would thereby be satisfied. If the RSN Member were to hold the security entitlement on behalf of the secured party, clause (3) of the definition of control would be satisfied. If the RSN Member were to agree to comply with orders originated by the secured party in the manner required by the UCC,[266] clause (2) of the definition of control would be satisfied. If the RSN Member were to credit the security entitlement to a securities account of a customer or participant, whether on a ledger maintained within the RSN or on the RSN Member's traditional books and records, or the RSN Member were to accept the security entitlement for credit to the customer's or participant's securities account, the customer or participant would become an entitlement holder with respect to a security entitlement to the relevant security,[267] and would (or would not) have control in the same circumstances as it would if its custodian held the security entitlement in any other manner.

We therefore believe that, as the Tokenized Securities were contemplated in the PoC, a security interest granted by a customer or participant of an RSN Member in a Tokenized Security may be perfected through "control" of the security entitlement as provided under Article 9.

### Implications for Statutory Safe Harbors for Securities Transactions

We were also asked to assess whether the tokenization of security entitlements and the use of tokens in the RSN, as contemplated in the PoC, would affect the application of statutory safe harbors for transactions in securities under the U.S. Bankruptcy Code, the FDIA or Title II of the Dodd-Frank Act. Each of these safe harbors exempts from the avoidance powers of an insolvency official certain transfers made in connection with securities transactions, subject to limitations and exceptions.

In addition to the other limitations applicable to the legal analyses in this Report, analysis of bankruptcy and insolvency law matters unavoidably have inherent limitations that may not exist in respect of other topics that are typically the subject of legal analysis. These inherent limitations exist primarily because of the pervasive equity powers of bankruptcy courts, the deference granted to regulatory agencies in resolving failed financial institutions, the overriding goal of reorganization and systemic risk mitigation to which other legal rights and policies may be subordinated, the potential relevance of future-arising facts and circumstances to the exercise of judicial discretion and the nature of the bankruptcy or insolvency process. As a result, this section includes an analysis based on statute and, to the extent applicable, prior case law and practice, but cannot address how any particular insolvency official would act in a given circumstance.

This section briefly summarizes the relevant safe harbors under the Bankruptcy Code, the FDIA and Title II of the Dodd-Frank Act before describing why we believe that the tokenization of securities and the use of the tokens in the RSN, as contemplated in the PoC, should not affect the availability of the safe harbors in a bankruptcy or insolvency proceeding.

*Bankruptcy Code Safe Harbors*. The trustee (or debtor or creditors' committee, depending on the circumstances of a case) in a bankruptcy proceeding under the Bankruptcy Code is afforded a number of protections and powers that permit it to prevent the exercise of contractual rights by counterparties to contracts with a debtor in bankruptcy. These include (among others) the imposition of an automatic stay on the exercise of most contractual remedies,[268] and the ability to avoid certain transfers of a debtor's interests in property.[269] However, certain counterparties to "securities contracts"[270] and "repurchase agreements" may take advantage of "safe harbors" from the application of certain of these provisions. For example, Sections 362(b)(6) and 362(b)(7) exempt the exercise of certain remedies under securities contracts and repurchase agreements from the automatic stay.[271] Furthermore, Sections 546(e) and (f) of the Bankruptcy Code restrict a trustee

266 Achieving control in this manner would require an agreement among the pledging customer or participant, the secured party and the RSN Member acting as securities intermediary for the customer or participant, under which the RSN Member would "agree[] to act on entitlement orders originated by the [secured party]" with "no further consent by the [customer or participant] required." Id. § 8-106 cmt. 4; see id. § 8-106(d)(2), (g). The agreement may permit the customer or participant to continue to make substitutions for the security entitlement, to originate entitlement orders to the RSN Member or otherwise to deal with the security entitlement, so long as the secured party's orders would also be given effect without the customer's or participant's consent. Id. § 8-106(f).

267 Id. § 8-501(b)(1).

268 11 U.S.C. § 362.

269 See id. §§ 553-554.

270 See id. §§ 101(47) (defining "repurchase agreement"), 741(7) (defining "securities contract").

271 The safe harbors for repurchase agreements are available to any "repo participant" (which includes any person with an outstanding repurchase agreement with the debtor) or "financial participant," but the safe harbors for securities contracts are available only to "a commodity broker, forward contract merchant, stockbroker, financial institution, financial participant, or securities clearing agency." Id. § 362(b)(5)-(6).

from avoiding, among other things, a transfer that is a "settlement payment" or made "by or to (or for the benefit of)" a "financial institution" in connection with a "securities contract," or any transfer in connection with a repurchase agreement that is made prior to the commencement of the bankruptcy proceeding.[272] Other provisions protect close-out rights, and rights of setoff.[273]

*FDIA Safe Harbor*. An insured bank is not eligible to be a debtor under the Bankruptcy Code,[274] and failed U.S. insured banks are instead generally resolved in an insolvency proceeding conducted by the FDIC pursuant to the FDIA. The FDIA establishes safe harbors for "qualified financial contracts" with an insured depository institution that is similar to the safe harbors under the Bankruptcy Code.[275] For this purpose, a "qualified financial contract" includes, among other things, any "securities contract" and any "repurchase agreement."[276] "Securities contract" and "repurchase agreement," in turn, are defined similarly to the same terms in the Bankruptcy Code.[277]

*Title II of the Dodd Frank Act Safe Harbor*. Title II of the Dodd-Frank Act[278] established the "Orderly Liquidation Authority" ("*OLA*") as an insolvency regime available to liquidate systemically important nonbank financial companies "in a manner that mitigates [risk to the financial stability of the United States] and minimizes moral hazard."[279] If the Secretary of the Treasury, in consultation with the President, determines (generally following a recommendation of the FDIC and the Federal Reserve Board) that a financial company is in default or danger of default and such default would pose a systemic risk to the U.S. financial system, then the FDIC may be appointed as receiver of the company.[280] In certain circumstances, the FDIC may also appoint itself as receiver for certain subsidiaries of the failed company.[281] Section 210(c)(8)(C) of Title II of the Dodd-Frank Act establishes safe harbors for securities contracts and repurchase agreements that are substantially similar to those provided in the FDIA.[282] The definition of "qualified financial contract" in OLA mirrors the definition of that term in the FDIA.[283]

*Implications for the RSN*. We believe it is unlikely that the tokenization of securities in the RSN, or the use of the RSN to record the ownership and transfers of the Tokenized Securities, would affect the availability of these safe harbors.

The term "security," as defined in the Bankruptcy Code, "is an amalgamation of the definition of that term used in the Securities Exchange Act of 1934 and [the Securities Investor Protection Act]."[284] It includes some, but not all, of the instruments that would be "securities" under the Securities Act.[285] The definition enumerates 15 interests included in the definition of a "security," including (among other things) any note, stock, bond or certificate of deposit, or an investment contract that has been registered with the SEC.[286] The definition also enumerates seven items that are *excluded* from the definition of a security.[287] Neither the list of instruments included in the definition, nor the list of items excluded, refers in any manner to the format in which the instruments are recorded or the technological or other method used to transfer them. Similarly, although neither the FDIA nor Title II of the Dodd-Frank Act defines the term "security" as used in the safe harbors, we believe the FDIC, in interpreting that term, would be unlikely to exclude from the definition an instrument that is a security under the Federal securities laws.

272 Id. § 546(e), (f). For purposes of a securities contract, a "settlement payment" means "a preliminary settlement payment, a partial settlement payment, an interim settlement payment, a settlement payment on account, a final settlement payment, or any other similar payment commonly used in the securities trade." Id. § 741(8).

273 See, e.g., id. §§ 555, 559.

274 Id. § 109(b)(2).

275 12 U.S.C. § 1821(e)(8)(C)(i).

276 Id. § 1821(e)(8)(D)(i).

277 Id. § 1821(c)(8)(D)(ii). However, certain contracts relating to mortgage loans may be included within the definition of securities contract or repurchase agreement under the FDIA, though not under the Bankruptcy Code.

278 Id. § 5381 et seq.

279 Id. § 5384(a).

280 See id. §§ 5382(a) (requirements for commencement of a resolution under OLA), 5383 (requirements for a systemic risk determination).

281 Id. § 5390(a)(1)(E).

282 Id. § 5390(c)(8)(C).

283 Id. § 5390(c)(8)(D)(i)-(ii).

284 Security (Bankruptcy Code § 101(49)), 4 Norton Bankr. L. & Prac. 3d § 87:20 (Oct. 2024 update).

285 See 11 U.S.C. § 101(49) (defining "security" under the Bankruptcy Code and excluding from that definition investment contracts "not required to be the subject of a registration statement filed with the [SEC] and . . . not exempt under section 3(b) of the Securities Act of 1933 from the requirement to file such a statement"); *In re Basin Res. Corp.*, 182 B.R. 489, 491 (Bankr. N.D. Tex. 1995).

286 11 U.S.C. § 101(49)(A).

287 Id. § 101(49)(B).

For this reason, we do not think that the use of the RSN to record ownership and transfer of instruments that are, in all other respects, within the definition of "security" under the Bankruptcy Code and the Federal securities laws, would affect the availability of the safe harbors under these statutes.

# Potential Applicability of Article 12

In 2022, the Uniform Law Commission and the American Law Institute approved amendments to the UCC that, among other things, added a new Article 12 to the UCC to "govern[] the transfer of property rights in certain intangible digital assets . . . . that have been or may be created and may involve the use of new technologies," including shared ledger technology.[288] Bills to amend the UCC, as enacted in New York, to add Article 12 have been introduced in the New York State Assembly and the New York State Senate, but this legislation has not been enacted as of the date of this Report.[289]

Although Article 12 has not been added to New York's implementation of the UCC, we were asked to assess if the Tokenized Deposits or Tokenized Securities contemplated in the PoC could be subject to Article 12, if it were to be adopted in New York in the version approved by the Uniform Law Commission and the American Law Institute. Accordingly, references in this section to Article 12 refer to that approved version of the article.

As noted above, it appears unlikely that the provisions of Article 12 would, if enacted in New York, be applicable to the Tokenized Deposits or Tokenized Securities contemplated in the PoC. Article 12 would address "controllable electronic records" ("CERs") and the official comments to Article 12 state that, "[t]o determine whether Article 12 applies to a particular asset . . . , one must determine whether the asset falls within the definition of *controllable electronic record*."[290] For purposes of Article 12, a CER would generally include any "record stored in an electronic medium that can be subjected to control" under Section 12-105 of Article 12.[291] However, certain types of assets—including any "deposit account" or "investment property"—expressly would be excluded from being CERs.[292] Article 12 would define "deposit account" and "investment property" as those terms are defined in Article 9 of the UCC.[293] The 2022 amendments to the UCC that would add Article 12 would not change the Article 9 definitions of these two terms.

Article 9, as enacted in New York, defines a "deposit account" as "a demand, time, savings, passbook, or similar account maintained with a bank," excluding "investment property or accounts evidenced by an instrument."[294] As described above, the Tokenized Deposits, as contemplated by the PoC, would be intended to be indistinguishable from other deposit accounts maintained at a bank (either a Federal Reserve Bank or a commercial bank). Neither a Tokenized Deposit nor the related tokens would be an "instrument" that "evidence[s] an account."[295] Under Article 9, an instrument is "a negotiable instrument or any other *writing* that evidences a right to the payment of a monetary obligation, is not itself a security agreement or lease, and is of a type that in ordinary course of business is transferred by delivery with any necessary indorsement or assignment."[296] As contemplated in the PoC, a Tokenized Deposit or related token would not be a writing,[297] and therefore could not be an instrument for purposes of Article 9. Because "deposit accounts" would be excluded from the definition of CER under Article 12, it appears unlikely that the Tokenized Deposits would be CERs under Article 12.

Under Article 9, "investment property" includes, among other things, any "security entitlement,"[298] and the definition of "security entitlement" in Article 9 incorporates the definition of that term

288 See Uniform L. Comm'n & Am. L. Inst., *Uniform Commercial Code Amendments* (2022) at 1 (June 1, 2023) [hereinafter "2022 UCC Amendments"], available at https://www.uniformlaws.org/viewdocument/final-act-164?CommunityKey=1457c422-ddb7-40b0-8c76-39a1991651ac&tab=librarydocuments.

289 Assembly Bill A10579, 2023 N.Y. State Assemb. (N.Y. 2024); N.Y. State Senate Bill 7244A, 2023 N.Y. State S. (N.Y. 2023).

290 2022 UCC Amendments, at 231.

291 Id. at 235, U.C.C. § 12-102(a)(1).

292 Id. at 235-36, U.C.C. § 12-102(a)(1).

293 Id. at 236, U.C.C. § 12-102(b).

294 N.Y. U.C.C. Law § 9-102(a)(29).

295 We believe that neither Tokenized Deposits nor the related tokens would be "investment property," which is similarly excluded from the definition of "deposit account." See id. However, because "investment property" would also be expressly excluded from the definition of "controllable electronic record" in Article 12, this point would not affect the analysis for purposes of the potential applicability of Article 12. See 2022 UCC Amendments at 235-36, U.C.C. § 12-102(a)(1) (defining "controllable electronic record").

296 N.Y. U.C.C. Law § 9-102(a)(47) (emphasis added).

297 See id. § 1-201(b)(43) (defining "writing" for purposes of the UCC, as enacted in New York, as "includ[ing] printing, typewriting, or any other intentional reduction to tangible form"); see also id. § 9-102(b) (defining "negotiable instrument" by reference to Section 3-104 of Article 3 of the UCC, as enacted in New York, which provides that a negotiable instrument must, among other things, be a "writing").

298 Id. § 9-102(a)(49).

in Article 8.[299] As described above, the positions in securities represented by tokens would be security entitlements for purposes of Article 8. Because "security entitlements" are "investment property" that would be excluded from the definition of CER under Article 12, it appears similarly unlikely that the security entitlements reflected on RSN Member Partitions by the tokens would be CERs under Article 12.

Although Article 12 expressly excludes deposits and investment property from its provisions, the official comments accompanying Article 12 suggest that tokens used in connection with deposits and investment property may constitute CERs. Official Comment 18 to Section 8-102 of the UCC, which would be added by the amendments that would add Article 12 to the UCC, notes that even though an investment security is not a CER, a CER "might be involved in the issuance and distribution of something that is a security for other, non-Article 8 purposes, including the Federal securities laws. For example, a [CER] (perhaps labeled as a "token" or "coin") might provide a mechanism for facilitating investments in such securities."[300]

The Official Comment also describes that, "[a]lthough a CER is not an Article 8 security, CERs might play a role in the facilitating transactions in Article 8 securities."[301]

The Official Comment goes on to give the example of an issuer that creates CERs, or "tokens" to facilitate transfers of uncertificated shares, such that "the transfer of control of a token on the platform on which the token is recorded constitutes an instruction to [the issuer] for the transfer of registration of the share(s) represented by the token to the transferee of control. Following receipt of the instruction upon transfer of control of a token, [the issuer] transfers registration of the share(s) on its books and records."[302] The comment notes that "[a]lthough Article 12 governs the tokens (as CERs) and the transfer of control thereof, other law, including [the applicable jurisdiction's] corporate law and . . . Article 8 (and Article 9, where applicable) governs rights in the uncertificated securities and the transfer of registration."[303] On this basis, although the Tokenized Deposits and Tokenized Securities would not be governed by Article 12, it is possible that the tokens used within the system could be if the tokens satisfy the definition of "controllable electronic record."

If none of the exclusions from the definition of CER are applicable, the key factor in determining whether an electronic record is a "CER" is whether the record is subject to "control." A person has "control" over an electronic record if the electronic record, a record attached to or logically associated with the electronic record, or a system in which the electronic record is recorded:

> (1) gives the person (A) power to avail itself of substantially all the benefit from the electronic record; and (B) exclusive power, subject to [provisions addressing the meaning of "exclusive" in Article 12], to: (i) prevent others from availing themselves of substantially all the benefit from the electronic record; and (ii) transfer control of the electronic record to another person or cause another person to obtain control of another controllable electronic record as a result of the transfer of the electronic record; and (2) enables the person readily to identify itself in any way, including by name, identifying number, cryptographic key, office, or account number, as having the powers specified in paragraph (1).[304]

As discussed above, an RSN Member that were to hold Tokenized Deposits or Tokenized Securities through the RSN would not have the right or ability to transfer control over the related tokens to any other person; the only action that could be taken with tokens would be to (1) burn (or redeem) them by causing the related deposits or securities to be recorded on the RSN Member's "traditional" ledger, or (2) cause them to be burned by making a payment or a transfer of securities through the RSN. In contrast, in a setting like the securities ledger referred to in the official comment, the person that controls a token relating to a security could presumably transfer the token to anyone who is eligible to purchase the security (who could then reconvey the token to another purchaser and so forth). Thus, it is not clear how this definition would be applied if Article 12 were enacted in New York, and we believe, based on current guidance, that it is unlikely that an RSN Member would be viewed as having "control" of the tokens used in the RSN. It is possible that under a different set of use cases and accompanying assumptions the RSN could support settlement of CERs, but that is beyond the scope of the PoC and this Report.

Unlike Articles 4-A and 8, Article 12 would not provide for the establishment of private agreements that override or vary its provisions. Because a "qualifying purchaser" of CER may be able to exercise rights with respect to that CER, even if those rights conflicted with the rules or purposes of a system in which they were used, it would be important to analyze whether any tokens used in an operational RSN, if such a network were to be developed, would constitute CERs. If that were to be the case, it would be necessary to ensure that the RSN were designed to enable the holding and transfer of CERs in a manner determined to be appropriate by the RSN Members, and to include appropriate provisions with respect to these tokens in the RSN Rulebook.

299 Id. § 9-102(b).

300 2022 UCC Amendments at 83, U.C.C. § 8-102 cmt. 18.

301 Id.

302 Id. at 84.

303 Id.

304 Id. at 245-46, U.C.C. § 12-105(a).

# Section 5

## Analysis of Tokenized Securities and Tokenized Deposits Under Federal Securities and Commodities Law

# Federal Securities Law Analysis

If the Tokenized Deposits contemplated in the PoC were characterized as "securities" within the meaning of the Securities Act or the Exchange Act, this status could raise significant additional regulatory considerations.[305] Similarly, if the Tokenized Securities were characterized as a separate security from the securities of the same issue recorded using traditional ledger technology, that characterization could raise additional considerations under these statutes.[306]

Given the unsettled nature of the treatment of digital tokens under the Federal securities laws generally, we cannot reach a definitive conclusion as to how the SEC would characterize the Tokenized Deposits or Tokenized Securities[307] under the Federal securities laws. However, on the basis of the assumptions in this Report, and subject to the analysis below, we believe that there is relatively little risk that a U.S. court or the SEC would conclude that tokens used in the RSN with respect to either Tokenized Deposits or Tokenized Securities, if they had the characteristics considered during the PoC, should be considered securities under the Federal securities laws.

### Tokenized Deposits

Although the definitions of "security" are not identical in the Securities Act and the Exchange Act, courts treat the definitions as "essentially identical in meaning" and therefore as covering the same types of instruments.[308] Both definitions enumerate several different types of instruments that are considered securities, including (among others) any "note," "stock," "bond," "investment contract," "interest or instrument commonly known as a 'security'" or "certificate of interest or participation in, temporary or interim certificate for, [or] receipt for" any of the enumerated types of instruments.[309] According to the Supreme Court, the use of several enumerated terms to define securities "recognize[s] the virtually limitless scope of human ingenuity, especially in the creation of 'countless and variable schemes devised by those who seek the use of the money of others on the promise of profits'" and these terms "encompass virtually any instrument that might be sold as an investment."[310] As a result of the intentionally broad scope and use of various enumerated terms in the definition, there is not a single test to determine whether a particular instrument is a security. Instead, "[e]ach type of financial instrument listed in the statutory definition of security is susceptible to a separate analysis, employing separate analytical concepts."[311] For example, the courts have developed separate tests to determine whether an instrument constitutes "stock," a "note" or an "investment contract."[312]

305 Among other provisions, the Securities Act imposes registration requirements (and related exemptions) with respect to the offer and sale of securities, and contains anti-fraud provisions that apply in connection with the offer and sale of securities. See generally 15 U.S.C. §§ 77e, 77f, 77q. The Exchange Act, among other provisions, imposes registration and disclosure requirements on issuers of securities, imposes registration requirements on parties involved in the offer and sale of securities, and contains anti-fraud provisions that apply in connection with the offer, purchase and sale of securities. See generally 15 U.S.C. §§ 78j, 78o, 78q-1. There are other state and Federal securities laws that may apply to any instrument that we do not address in this Report, but we do not believe it is likely that a different conclusion would be reached under those other laws.

306 If the creation of tokenized representations of existing securities were viewed as the creation of a new or separate security, then that new or separate security and the circumstances of its "issuance" would have to be evaluated to determine whether compliance registration requirements and other requirements under the Federal securities laws would be required.

307 As discussed in Section 1 above, there are no tokens issued by the RSN FMI or that are transferred among RSN Members.

308 See *SEC* v. *Edwards*, 540 U.S. 389, 393 (2004); see also *Landreth Timber Co.* v. *Landreth*, 471 U.S. 681, 686 n.1 (1985) ("We have repeatedly ruled that the definitions of "security" in . . . the [Exchange] Act and . . . the [Securities] Act are virtually identical and will be treated as such in our decisions dealing with the scope of the term.").

309 See 15 U.S.C. § 77b(a)(2) (defining "security" under the Securities Act); id. § 78c(a)(10) (defining "security" under the Exchange Act).

310 *Reves* v. *Ernst & Young*, 494 U.S. 56, 60-61 (1990) (quoting *SEC* v. *W.J. Howey Co.*, 328 U.S. 293, 299 (1946)).

311 Louis Loss, Joel Seligman & Troy Paredes, *Securities Regulation* § 3.A.1(a)(i) (7th ed. 2023).

312 See *Reves*, 494 U.S. at 63 (establishing the test for "notes"); *Landreth Timber*, 471 U.S. at 693-94 (establishing the test for "stock"); *Howey*, 328 U.S. at 298-301 (establishing the test for an "investment contract").

Courts have long held that ordinary bank deposits and similar holdings with little to no risk are not considered securities under the Federal securities laws.[313] In the RSN context, deposits of a commercial bank or Federal Reserve Bank are recorded on a ledger, changes to which are effected by means of smart contracts taking actions that relate to the Tokenized Deposits.

The use of tokens as a mechanism to achieve changes in deposit ledgers maintained by the issuing banks should not change the fundamental nature of the bank deposits to which the ledgers relate. We do not believe that the use of a different technology to record the ownership of the deposits or to transfer the funds, both traditional banking activities, should alter the legal treatment of the Tokenized Deposits as ordinary deposits represented on a bank's ledger. The nature of the legal relationship between the bank and its customer is not intended to be changed by use of the technology, and the financial rights of the customer are not affected. The technological and legal structure of the RSN, including the Tokenized Deposit balance checks performed during the RSN settlement process, make it clear that the change in the format of the ledger reflecting deposits would not increase the risk of loss to RSN Members holding the Tokenized Deposits. This conclusion is further supported by our expectation that the operation of the RSN would be subject to Federal oversight (potentially by both the Federal Reserve Board and the SEC) and that the settlement services provided by the RSN to U.S. insured depository institutions would also be subject to regulation and examination by Federal banking regulators pursuant to the BSCA, as discussed above in Section 3. As a result, the Tokenized Deposits would continue to have the same risk profile as ordinary bank deposits and should not be viewed as securities.[314]

Courts have found that certain characteristics can cause a deposit to be viewed as a security, including, in particular, the means by which the deposits are distributed and whether or not the deposits have characteristics that are more consistent with an investment purpose than a banking purpose. We do not believe that the Tokenized Deposits would possess such characteristics. There would be no underwriter involved in the RSN, nor any collective investment, nor any investment return offered to holders of accounts to which Tokenized Deposits would be credited, and the tokens contemplated in the PoC would be minted for the purpose of facilitating settlements and not for purposes of investment. The purpose for which the change in the format of the deposits would be made would be to facilitate the execution of payments and enable the use of smart contracts deployed on a private, permissioned blockchain, not to enhance the yield, improve the financial performance, or change the investment (or non-investment) characteristics of the deposit. Furthermore, Tokenized Deposits would not be sold (or advertised) as "investments." Although Tokenized Deposits would be allocated to specific customers or participants, which may be RSN Members, at certain points within the RSN transaction process, possession of the Tokenized Deposits would simply be a means of creating a digital record of a deposit liability of a commercial bank or Federal Reserve Bank that can be transferred only using facilities offered by the applicable bank.

The RSN would not provide for or facilitate trading in the Tokenized Deposits, and, in any event, the Tokenized Deposits would not be expected to experience any price volatility when measured in U.S. dollars. The Tokenized Deposits would not be traded on any exchange and the maintenance of their par value would not be dependent on supply and demand on an exchange. Furthermore,

313 See *Marine Bank* v. *Weaver*, 455 U.S. 551, 558 (1982) (holding that certificates of deposit are not securities in view of "the important fact that the purchaser of a certificate of deposit is virtually guaranteed payment in full, whereas the holder of an ordinary long-term debt obligation assumes the risk of the borrower's insolvency"); *Gary Plastic Packaging Corp.* v. *Merrill Lynch, Pierce, Fenner & Smith, Inc*., 756 F.2d 230, 239 (2d Cir. 1985) ("In *Marine Bank* v. *Weaver*, the Supreme Court added a further limiting requirement to the Howey test: for an instrument to be a security the investor must risk loss."); *Wolf* v. *Banco Nacional de Mexico, S.A*., 739 F.2d 1458, 1463 (9th Cir. 1984) ("[W]hen a bank is sufficiently well regulated that there is virtually no risk that insolvency will prevent it from repaying the holder of one of its certificates of deposit in full, the certificate is not a security for purposes of the federal securities laws."); *Odom* v. *Citigroup Glob. Mkts. Inc*., 62 F. Supp. 3d 1330, 1336 (N.D. Fla. 2014) ("In the case of the Citigold checking accounts, it is apparent, and the parties do not appear to dispute, that the checking accounts are not securities."); *Lenczycki* v. *Shearson Lehman Hutton, Inc*., 1990 WL 151137, at *1, 4 (S.D.N.Y. Sept. 29, 1990) (holding that a money market account at a stock brokerage, which the court described as "an interest-bearing checking account," is not a security); *Ayala* v. *Jamaica Sav. Bank*, 468 N.Y.S.2d 306, 307 (N.Y. Sup. Ct. 1983) (holding that time deposit accounts are not securities).

314 We note some courts have assessed whether an instrument is sufficiently risk-free for these purposes by reference to whether the instrument is subject to a regulatory scheme as comprehensive as the U.S. bank regulatory scheme. See, e.g., *Olson* v. *E.F. Hutton & Co*., 957 F.2d 622, 628 (8th Cir. 1992); *Tafflin* v. *Levit*t, 865 F.2d 595, 599 (4th Cir. 1989). However, the Supreme Court has suggested that the scope of the applicable regulation is not the only way for an instrument to be sufficiently risk-free. See *Reves*, 494 U.S. at 67 ("[W]e examine whether some factor such as the existence of another regulatory scheme significantly reduces the risk of the instrument, thereby rendering application of the [federal securities laws] unnecessary.") (emphasis added). Accordingly, even if the regulatory scheme applicable to the RSN FMI or the RSN is relevant, as opposed to the regulatory scheme applicable to the banks at which the Tokenized Deposits would be held, we believe it is not necessary to engage in a detailed comparison of U.S. bank regulation with the regulatory scheme that would likely be applicable to the RSN because, for the reasons described above, interests in the RSN are sufficiently risk-free for these purposes.

there would be no expectation by the public that the Tokenized Deposits constitute investments, particularly as the public would have no ability to acquire or transact in the Tokenized Deposits except through a deposit relationship with a bank and an account at that bank (or in some use cases, indirectly through a third party regulated network), and even then, it is anticipated that access would be limited to wholesale clients.[315] The Tokenized Deposits are also assumed to be transferrable only in connection with certain, specified transactions permitted under the RSN Rulebook, and not for other purposes outside their use in the RSN. In general, our expectation is that the Tokenized Deposits would not receive interest, or would receive interest in the same fashion and rates as equivalent deposits at the same bank that are not recorded in the form of Tokenized Deposits, but if they did receive interest in that manner, that feature would not make them into securities any more than it would make ordinary deposits into securities.[316] The Tokenized Deposits would not be expected to appreciate in value, in U.S. dollar terms, and would not generate any interest beyond that applicable to the traditional deposit account to which they relate, nor provide the opportunity for any dividend or other return.[317]

In the unlikely circumstance that the Tokenized Deposits were to be considered securities, they should be exempt under Section 3(a)(2) of the Securities Act, which exempts from registration under Section 5 of the Securities Act any security issued or guaranteed by a "bank."[318] The only RSN Members that are contemplated by the PoC to issue Tokenized Deposits are commercial banks and Federal Reserve Banks. Furthermore, all RSN Members are currently contemplated to be banks or other Federally regulated financial institutions, such as broker-dealers, who would utilize Tokenized Deposits solely for the purposes permitted in the RSN Rulebook, and the RSN and its elements therefore appear to be outside of the focus of the SEC's current policy focus with respect to digital assets.[319] In particular, RSN Members would all be "able to fend for themselves" in any securities offering,[320] and have the "financial sophistication and ability to sustain the risk of loss of investment," such that "the protections of the Securities Act's registration process [are] unnecessary."[321]

For the reasons described above, although it is impossible to predict with certainty how the SEC would view the RSN and the Tokenized Deposits, we believe it is unlikely that a U.S. court or the SEC would conclude that the Tokenized Deposits are securities under the Federal securities laws.

315 Even to the extent that corporate entities could directly utilize the RSN and receive liabilities recorded by Tokenized Deposits, the tokens would never leave the Partitions of the issuing bank.

316 If the deposits recorded by the Tokenized Deposits were to receive higher interest rates than other equivalent deposits, that could increase the risk of the Tokenized Deposits being seen as securities. However, as stated, we do not expect that to be the case.

317 See, e.g., *Libaire* v. *Kaplan*, 395 Fed. App'x 732, 734 (2d Cir. 2010) (holding that payments of membership dues to access and use a hunting preserve were not for securities); *Grenader* v. *Spitz*, 537 F.2d 612, 619 (holding that purchases of stock to occupy housing in a cooperative apartment building were not for securities, even if the purchasers might "incidental[ly]" be attracted by profits on the real estate); *Iacobucci* v. *Universal Bank of Md.*, 1991 WL 102460, at *6 (S.D.N.Y. 1991) (holding that deposits into cash management accounts used to provide security for credit card issuers that would issue credit cards to the depositors were not payments for securities); Maine Mut. Fire Ins. Co., SEC Staff No-Action Letter, [2001-2002 Transfer Binder] Fed. Sec. L. Rep. ¶ 78,212 (Nov. 15, 2001) (providing that the Division of Corporation Finance staff would not recommend enforcement for membership interests in a mutual insurance holding company obtained by operation of law by those purchasing insurance for personal consumption); Serv. Ctrs. Corp., SEC Staff No-Action Letter, WSB File No. 052493013 (May 21, 1993) (providing that the Division of Corporation Finance staff would not recommend enforcement for purchases by credit unions of stock or notes in a credit union service organization that enable the purchasers to obtain use of the organization's services).

318 See 15 U.S.C. § 77c(a)(2). The policy underlying the Section 3(a)(2) exemption from registration requirements of Section 5 of the Securities Act is that banks are highly regulated, and provide adequate disclosure to investors about their businesses and operations in the absence of Federal securities registration requirements. As previously noted, each participating bank would mint and hold Tokenized Deposits on its individual RSN Partition and therefore could be considered an "issuer" of its Tokenized Deposits. Although we believe that these Tokenized Deposits would constitute regular bank deposits that should not be considered securities (as discussed above), the Section 3(a)(2) exemption further affirms the understanding that even if the Tokenized Deposits were to be considered securities, they would be exempt from Section 5 of the Securities Act due to their nature as securities issued or guaranteed by banks.

319 See, e.g., SEC, Div. of Examinations, Fiscal Year 2025 Examination Priorities at 14, available at https://www.sec.gov/files/2025-exam-priorities.pdf.

320 *SEC* v. *Ralston Purina Co.*, 346 U.S. 119, 125 (1953).

321 See Regulation D Revisions; Exemption for Certain Employee Benefit Plans, Securities Act Release No. 33-6683, 52 Fed. Reg. 3015, 3017 (Jan. 30, 1987); see also 15 U.S.C. § 77d(a)(2) (exempting "transactions by an issuer not involving any public offering" from the registration requirements of the Securities Act); 17 C.F.R. § 230.506 (exempting from the registration requirements transactions not involving any "public offering," which are offerings that meet certain requirements and where the only purchasers are "accredited investors").

### Tokenized Securities

As contemplated in the PoC, the Tokenized Securities, including U.S. Treasury securities and IG bonds, *would be* securities under the broad definition of that term in the Federal securities laws.

However, the tokens utilized by the RSN relating to the Tokenized Securities would be used only as a mechanism to achieve changes in ledgers maintained by RSN Members, and therefore should not change the fundamental nature of the Tokenized Securities to which they relate. Accordingly, as an initial matter, it would be difficult to characterize the tokens as "investments" that are separate from the related Tokenized Securities: the tokens would not be "sold" to any person at any time separately from the underlying securities, and they would simply use a different technology to reflect the holding and transfer of positions in those securities without affecting either the legal relationship between an RSN Member and its customer or participant or the financial rights of that customer or participant. This fact alone should preclude characterization of tokens as securities separate from the Tokenized Securities to which they would relate.

Historically, the SEC's analysis of whether amendments to a security (or "repackaging" a security)[322] creates a new security turns on whether the amendments substantially affect the legal rights and obligations of the holders of the security.[323] Under various judicial decisions and SEC no-action letters, this standard has traditionally been met when the amendments would significantly alter the "basic financial terms" or the "basic nature" of existing securities, as opposed to amendments that adjust contractual rights of a lesser magnitude.[324] In addition, amendments that do not increase the security holder's investment risk have been held to not involve the sale of a new security.[325] There would be no change in the terms of any of the securities or related security entitlements upon their transfer from traditional ledgers to the ledgers maintained within the RSN. Neither the rights and obligations of the issuer of the securities nor the rights and obligations of any securities intermediary or holder of any related security entitlement would change in any respect, except with respect to the mechanics involved in reflecting how the security entitlement is held and transferred. Moreover, those changes would apply only for so long as the particular security entitlement would be held or transferred within the RSN.

Indeed, the use of tokens in the Partitions of RSN Members is simply another method for reflecting the ownership and transfer of a security. The difference between a security, when held in tokenized form, as opposed to when held on traditional ledgers maintained by securities intermediaries, including CSDs, is significantly less than the difference between holding a security directly in certificated form, holding the same security in "street name," holding the security through a CSD, and holding the security in uncertificated form, none of which are viewed as "separate securities" for Federal securities law (or other) purposes.[326] For these reasons, we believe it is unlikely that the SEC would take the view that holding or transferring Tokenized Securities on the RSN Ledger would raise any concern that a separate security has been created.

### Tokens Used in RSN Operations

The tokens utilized in the RSN to effectuate transfers of Tokenized Deposits and Tokenized Securities also should not be viewed as securities for purposes of the Federal securities laws. The tokens would not be distributed or made available to anyone except the RSN Members in connection with their utilization of the RSN. Each token would come into existence in connection with anticipated settlements, and its existence would terminate upon the completion of its use. There would be no "sale" of any token, or ability to acquire any such token except in the course of transferring or holding Tokenized Deposits or Tokenized Securities. In fact, the tokens would

322 See, e.g., Merrill Lynch, Pierce, Fenner & Smith Inc., SEC No-Action Letter, File No. 3-321 (Sept. 3, 1999), available at https://www.sec.gov/divisions/investment/noaction/1999/holdrsf090399.pdf; Merrill Lynch, Pierce, Fenner & Smith Inc., SEC Staff No-Action Letter [1990-1991 Transfer Binder] Fed. Sec. L. Rep. (CCH) 79,618 (Sept. 26, 1990).

323 See McGuigan & Aiken, *Amendment of Securities*, 9 Rev. of Sec. Reg. 935, 935 (1976); see also Louis Loss, Joel Seligman & Troy Paredes, *Securities Regulation* § 3.A.1(i) (7th ed. 2023).

324 See Leasco Corp., SEC No-Action Letter LEXIS 2927 (Sept. 22, 1982) (providing no-action relief in response to a request asserting that an amendment eliminating certain prohibitions on the payment of dividends could be "characterized accurately as an adjustment of contractual rights rather than a substantial modification constituting a change in the basic nature of the security"); Susquehanna Corp., SEC No-Action Letter (June 29, 1979) (providing no-action relief in response to a request asserting that amendments designed to relax the restriction on dividend payments and to increase the rate of interest constitute merely a modification of contractual provisions, made in accordance with procedures provided in the indenture); Sheraton Corp., SEC No-Action Letter (Nov. 24, 1978) (providing no-action relief in response to a request asserting that proposed amendments to indentures which would permit the return of substantial payments to the parent company and increase the rate of interest were merely modifying certain contractual provisions in the indenture); see also *Abrahamson* v. *Fleschner*, 568 F.2d 862 (2d Cir. 1975) (holding that a new security arises only when there is a significant change in the nature of the investment or the investment risks); Sowards, 11 *Business Organizations* 2-140 (1994) (noting that new securities arise only in connection with a "fundamental change" in the nature of an investment).

325 *Browning Debenture Holders' Comm.* v. *DASA Corp.*, No. 72 Civ. 1332, 1975 WL 387, at *1 (S.D.N.Y. Apr. 16, 1975).

326 See, e.g., 17 C.F.R. § 240.13d-3(c) ("All securities of the same class beneficially owned by a person, regardless of the form which such beneficial ownership takes, shall be aggregated in calculating the number of shares beneficially owned by such person.").

not be sold or distributed to the RSN Members or any other person at all. The tokens would be created and used for the purpose of facilitating settlements by enabling the functionality described in this Report and in the RSN Technical Feasibility Report. The tokens would have no yield, no financial features and no voting rights of any kind. The RSN would not provide for or facilitate trading in the tokens and the tokens would not be traded on any exchange. There would be no expectation by the public that the tokens have any value or constitute investments, and the public would likely have no idea that the tokens exist at all. The tokens would not be expected to have any independent value. We do not believe the tokens should have any independent significance under the Federal securities laws.

# Federal Commodities Law Analysis

The Commodity Exchange Act (the "CEA") defines "commodity" to include, in addition to specified agricultural items and subject to exceptions not relevant here, "all services, rights, and interests . . . in which contracts for future delivery are presently or in the future dealt with."[327] Although deposits and securities may, in at least some instances, be "commodities" under the CEA, the Tokenized Deposits and Tokenized Securities, as contemplated in the PoC, should not be futures contracts or swaps subject to the regulatory jurisdiction of the CFTC.[328]

### Tokenized Deposits

The Tokenized Deposits would be wholesale demand deposits denominated in U.S. dollars that have been tokenized and would be, in such form, available for transfer through the RSN. As described in Section 4, the use of Tokenized Deposits to record ownership and transfers of the underlying deposits would not alter the legal obligations of the RSN Members to their depositors. As deposit liabilities, the Tokenized Deposits contemplated in the PoC should be viewed as "identified banking products" (i.e., "a deposit account, savings account, certificate of deposit, or other deposit instrument issued by a bank")[329] and, on that basis, excluded from the CFTC's regulatory jurisdiction.

### Tokenized Securities

The Tokenized Securities would be positions in U.S. Treasury securities or IG bonds issued by a U.S. corporate issuer that have been tokenized and would be, in such form, available for transfer through the RSN. The legal obligation of the RSN Members to their customers or participants in respect of the security entitlements represented on the RSN Ledger would be identical to the security entitlements that would exist under existing methods of recording such ownership rights, and would not change as a result of the technology chosen to record or effectuate changes in ownership of those positions. Importantly, a person holding a position in a Tokenized Security would typically have a present ownership interest in a security, not a right to future delivery of the security or right to payments or deliveries based on the value of a security.

In addition, the use cases evaluated in the PoC do not contemplate any transaction in the Tokenized Securities that would be subject to the CFTC's regulatory jurisdiction. Repos involving these securities would be excluded from the jurisdiction of the CFTC under the so-called Treasury Amendment.[330] The other securities transactions evaluated in the PoC would be limited to regular way purchases and sales that contemplate payment and delivery of the security within standard time frames, which are excluded from the CFTC's jurisdiction.[331] Accordingly, neither the Tokenized Securities nor the transactions contemplated in the PoC should otherwise be subject to the CFTC's regulatory jurisdiction, including as swaps[332] or contracts for future delivery.

### Tokens Used in RSN Operations

As discussed in Section 4, a token relating to a Tokenized Deposit or Tokenized Security would function solely within the RSN as a means to update the lender contained within a single RSN Member's Partition. The tokens would not provide for any form of executory payment or delivery obligation between two or more parties and would not otherwise provide for the creation or enforcement of any rights or obligations. For these reasons, the tokens should not be viewed as having independent legal significance, including as futures or swaps under the CEA.

327 7 U.S.C. § 1a(9).

328 Other types of transactions regulated by the CFTC, such as retail commodities or foreign exchange transactions, are not implicated by the PoC use cases, which involve securities and deposits.

329 See 7 U.S.C. § 27(b) (defining "identified banking products" by reference to Section 206(a) of the Gramm-Leach-Bliley Act, Pub. L. No. 106-102, 113 Stat. 1338, 1393 (1999)); 7 U.S.C. § 27a.

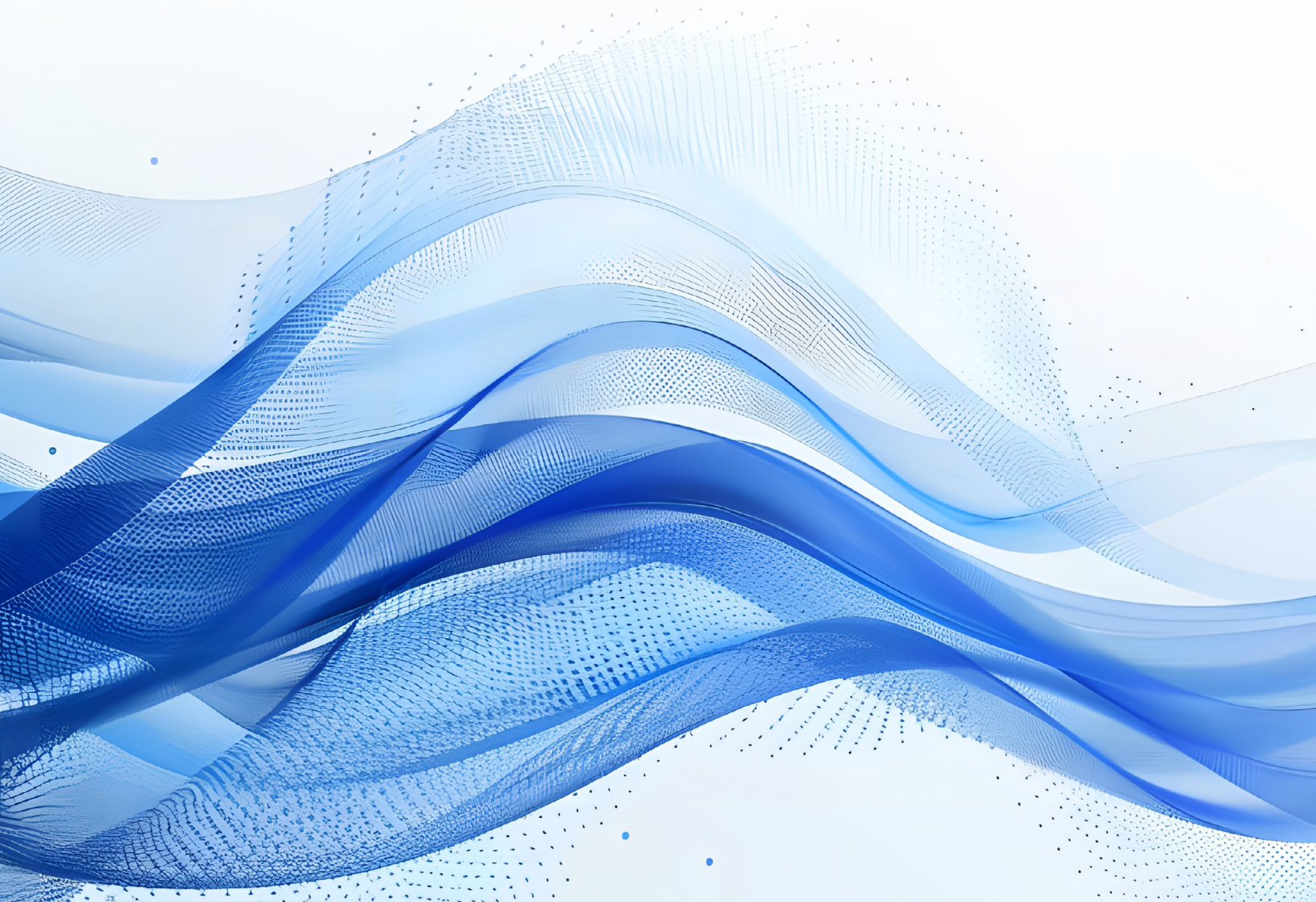
330 7 U.S.C. § 2(c)(1).

331 See CFTC Letter No 97-01 (Dec. 12, 1996), available at https://www.cftc.gov/sites/default/files/tm/letters/97letters/tm97-01.htm ("Spot transactions are . . . excluded from regulation under the [CEA]. . . . In a spot transaction, immediate delivery of the product and immediate payment for such are expected on or within a few days of the trade date . . . .").

332 7 U.S.C. § 1(a)(47)(A) (defining a "swap" to include, among other things, contracts that provide for payments based on the value or level of a securities or other property without conveying ownership of the securities or property).

# Section 6

FDIC Insurance Implications of the Tokenized Deposits



# FDIC Insurance Analysis

Under the FDIA, "insured deposits" are "the net amount due to any depositor for deposits in an insured depository institution as determined under sections 1817(i) and 1821(a)" of Title 12 of the U.S. Code.[333] "Deposits", in turn, are defined in Section 1813(l) to include a broad range of bank obligations. We understand that all the commercial bank deposits that are to be recorded or transferred in the RSN would be considered "deposits" for this purpose, but for the fact that they are recorded on the ledgers maintained by the commercial bank RSN Members within their Partitions.

None of the provisions defining deposits or insured deposits depend upon or limit the technology used to maintain the ledger on which the deposits are recorded. As discussed in Section 3 above, the "transparency doctrine" generally supports the conclusion that the characterization of an activity or function conducted by a bank should not depend on the specific technology used to carry it out. Nonetheless, given the critical importance of deposit records in the resolution of failed banks, among other circumstances, the FDIC has adopted regulations specifying certain requirements for those records.

In its regulations relating to deposit insurance coverage,[334] the FDIC has defined "deposit account records" as consisting of account ledgers, signature cards, certificates of deposit, passbooks, corporate resolutions authorizing accounts in the possession of the insured depository institution and other books and records of the insured depository institution, including records maintained by computer, which relate to the insured depository institution's deposit taking function, but do not mean account statements, deposit slips, items deposited or cancelled checks.[335] Deposit insurance coverage for any deposit depends upon the information reflected in the deposit account records; the regulations provide that "the FDIC shall presume that deposited funds are actually owned in the manner indicated on the deposit account records of the insured depository institution. If the FDIC, in its sole discretion, determines that the deposit account records of the insured depository institution are clear and unambiguous, those records shall be considered binding on the depositor, and the FDIC shall consider no other records on the manner in which the funds are owned."[336]

Although the RSN Ledger maintained by the RSN FMI would be the definitive record of the status of payment transactions settled through the RSN, each commercial bank RSN Member would maintain its own ledger recording its own deposit liabilities. This individual ledger would be maintained within the RSN Member's Partition, for which it would have sole responsibility and over which it would have full control, subject to agreed-upon automatic updates based on transactions specifically approved by the relevant Member. Each RSN Member would be required contractually to update its ledger upon the completion of a payment through the RSN (which could be through the use of technology or systems provided by the RSN FMI), and the RSN Member would, in any event, be required to update its records to reflect those settlements just as it would reflect settlements on other external trading platforms and settlement systems. The ledgers maintained by the RSN Member banks would remain subject to all present and future regulations relating to deposit records (e.g., the Large-Bank Deposit Insurance Determination Modernization Rule,[337] if applicable), either directly or through other means satisfactory to the FDIC.

Furthermore, each payment transaction would require the affirmative consent of each relevant RSN Member at the time of its execution. In other words, even if the RSN were to automatically update the relevant ledgers within RSN Member Partitions upon completion of each settlement, each RSN Member would have full control over whether any such settlement is completed, thereby affording it full control over changes to its ledger.

333 12 U.S.C. § 1813(m)(1). Neither Section 1817(i) nor Section 1821(a) makes any reference to the technology used to record the ownership or characteristics of any obligation that purports to be a deposit.

334 12 C.F.R. pt. 330.

335 Id. § 330.1(e).

336 Id. § 330.5(a)(1).

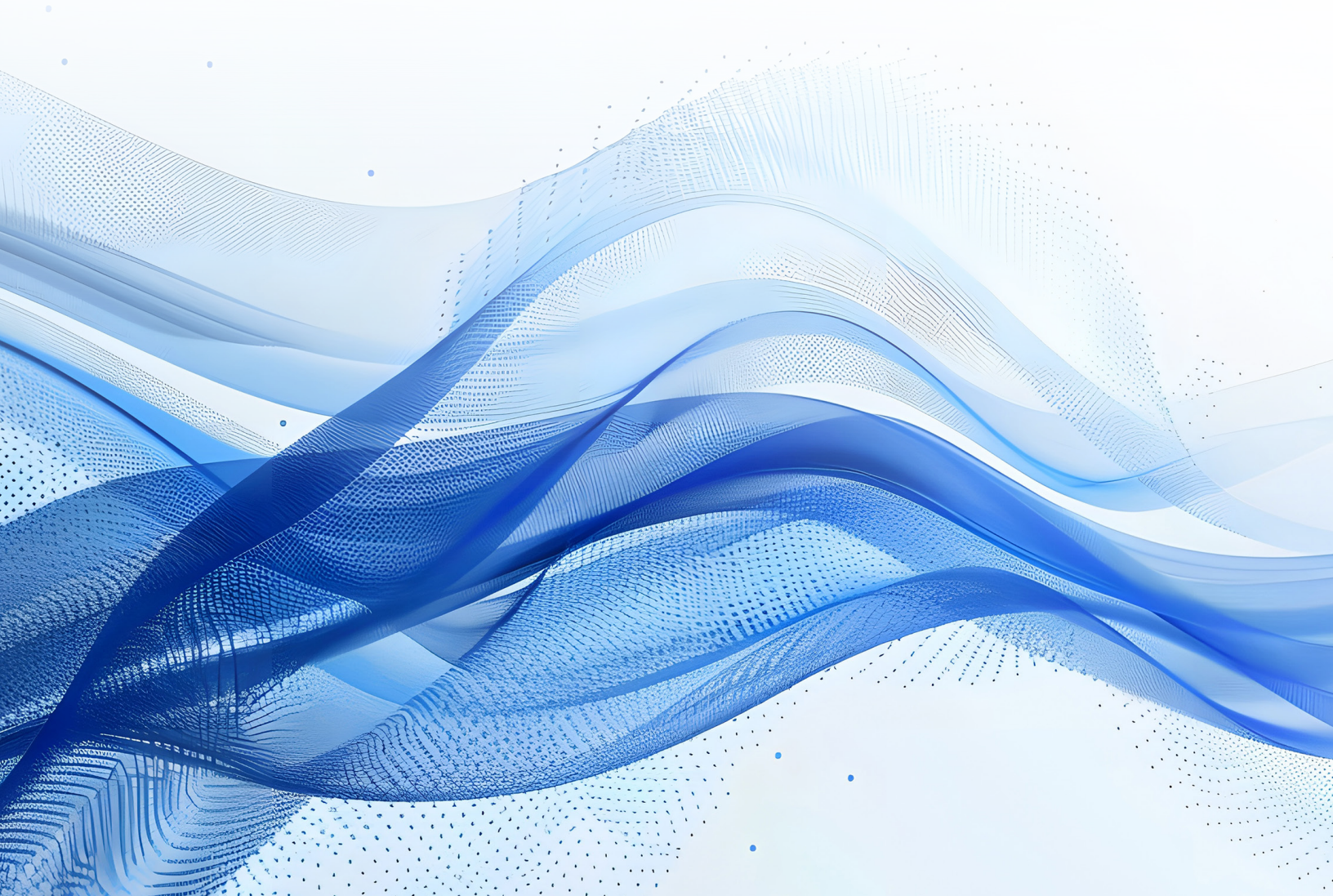
337 See id. § 360.9.

We are aware that the FDIC may have concerns over the use of non-traditional shared ledgers, given the critical importance of these records to the FDIC in supervising and examining banks and their deposit operations and, potentially to a greater degree, in the event of a bank's failure. However, based on the current legal framework, the FDIC could conclude that the ledgers maintained by the banks through the RSN fall within the scope of "account ledgers and computer records that relate to the insured depository institution's deposit taking function" within the possession of the relevant bank if each bank could demonstrate its ability to comply with its obligations under the FDIA and the FDIC's rules related to insured deposits. Features such as automatic updates reflecting settlements specifically approved by the bank should not alter this conclusion, particularly given the level of control and transparency that each bank would have over its own ledger.[338] If the FDIC determined that this new technology were not explicitly covered by the current rule, it could clarify the application of these types of ledgers without making any significant adjustment to the definition. Given the importance of this topic, discussions with the FDIC for this reason, as well as for the reasons discussed in Section 3 above, prior to the creation of an RSN and any particular use case would be important to confirm the FDIC's views with respect to the RSN or the use case.

338 The fact that a Partition could be automatically updated by the RSN FMI and/or in accordance with RSN Ledger updates would not impact this analysis, as the RSN Member bank would still maintain control over its own deposit ledger. When the FDIC adopted the initial version of its Part 370 regulations, it acknowledged that certain information about deposit holders "may continue to reside in records maintained outside the covered institution by either the account holder *or a party designated by the account holder*." FDIC, Recordkeeping for Timely Deposit Insurance Determination, 81 Fed. Reg. 87,734, 87,739 (Dec. 5, 2016) (emphasis added). To the extent that any of the deposit recordkeeping processes would be outsourced to the RSN FMI by an RSN Member, the Member would still maintain a technology system capable of performing the measures required within 24 hours after the appointment of the FDIC as receiver pursuant to its regulations. See, e.g., 12 C.F.R. § 370.4(a). Furthermore, allowing automated updates to the ledger to reflect completed settlements simply ensures that an RSN Member would comply with its obligation to maintain accurate records of payments made on the RSN; banks are currently required to update their ledgers to reflect payments made on external payment systems—i.e., an RSN Member does not have discretion as to whether a payment made through Fedwire® Funds Service or CHIPS has or has not occurred, and would be required to update its ledger to reflect that payment once the payment has occurred within the rules of that system. Synchronizing the ledger merely automates that process, ensuring that the bank's records remain current.

# Section 7

SEC & FINRA Regulatory Implications



# Compliance with SEC Treasury Clearing Rules

The Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case and the Cross-Network Intraday Repo Settlement Use Case, both of which contemplate settlement of transactions involving U.S. Treasury securities, would need to comply with the recently enacted Treasury Clearing Mandate that broadly requires central clearing of U.S. Treasury security transactions.

Subject to narrow exceptions,[339] the Treasury Clearing Mandate will require covered clearing agencies (each, a "CCA") (i.e., a clearing agency that is a CCP or a CSD) to have written policies and procedures requiring their direct participants to submit for central clearing "eligible secondary market transactions," which refer to secondary market transactions in U.S. Treasury securities of a type accepted for clearing by a registered CCA, including: (1) a repurchase and reverse repurchase agreement (repo) collateralized by U.S. Treasury securities to which a direct participant is a counterparty; (2) a purchase or sale of U.S. Treasury securities by a direct participant that brings together multiple buyers and sellers using a trading facility (such as a limit order book) and is a counterparty to both the buyer and seller in two separate transactions; and (3) a purchase or sale of U.S. Treasury securities between a direct participant and a registered broker-dealer or a government securities dealer or broker.[340] FICC is currently the only CCA for U.S. Treasury securities.[341] Under the Final Rule, the compliance date is December 31, 2025 for cash transactions and June 30, 2026 for repo transactions.

The Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case would need to comply with the Treasury Clearing Mandate and, as designed, it would. The Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case contemplates a DvP transaction between Bank A (as the buyer of U.S. Treasury securities, receiving treasuries) and Bank B (as the seller, receiving cash) for which the settlement of both the cash and securities legs occurs in the RSN. The PoC assumes that a CCP would participate in facilitating the DvP Treasury security transactions. As a result, the PoC is designed so that transactions in the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case would be centrally cleared in a manner that complies with the Treasury Clearing Mandate.

The Cross-Network Intraday Repo Settlement Use Case is designed to utilize the RSN FMI to facilitate the settlement of intraday U.S. Treasury security repo transactions without central clearing. Because intraday repos are not currently "a type [of transaction] currently accepted for clearing by a registered [CCA],"[342] and the Treasury Clearing Mandate does not impose a requirement on CCAs to offer additional types of transactions for clearing, the Cross-Network Intraday Repo Settlement Use Case is outside the current scope of the Treasury Clearing Mandate.[343] However, if FICC or another registered CCA later adopts rules accepting intraday Treasury repos for clearing, then such intraday repos of U.S. Treasury securities would each be considered an "eligible secondary market transaction"[344] subject to the Treasury Clearing Mandate.[345] This has implications for the long-term viability of the Cross-Network Intraday Repo Settlement Use Case with respect to intraday Treasury repos.

339 The definition of "eligible secondary market transactions" excludes (1) purchase or sale transactions or repos in which one counterparty is a central bank, a sovereign entity, an international financial institution or a natural person, (2) repos collateralized by U.S. Treasury securities in which one counterparty (a) is a CCA providing central counterparty services or a derivatives clearing organization, or is regulated as a CCP in its home jurisdiction, or (b) is a state or local government, and (3) repos collateralized by U.S. Treasury securities entered into between a direct participant and an affiliated counterparty, provided that the affiliated counterparty submits for clearance and settlement all other repos collateralized by U.S. Treasury securities to which the affiliate is a party. See 17 C.F.R. § 240.17ad-22(a).

340 Id. (defining "eligible secondary market transaction"); see also Standards for Covered Clearing Agencies for U.S. Treasury Securities and Application of the Broker-Dealer Customer Protection Rule with Respect to U.S. Treasury Securities, Exchange Act Release No. 34-99149, 89 Fed. Reg. 2714-At 2829 (Jan. 16, 2024) [hereinafter, "Adopting Release"].

341 Following adoption of the Treasury Clearing Mandate, other clearing organizations announced their intention to launch U.S. Treasury clearing services, and the Staff has indicated that it is engaging with these organizations. See *Enhancing the Resilience of the U.S. Treasury Market: 2024 Staff Progress Report* (Sept. 20, 2024) at 8, available at https://home.treasury.gov/system/files/136/2024-IAWG-report.pdf. Our analysis for the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case would not change if there were multiple CCAs offering clearing services for U.S. Treasury securities. However, the existence of multiple CCAs could affect the Cross-Network Intraday Repo Settlement Use Case, as discussed below, because if any CCA offers clearing services for intraday Treasury repos, then intraday Treasury repos would be considered "eligible secondary market transactions," and thus subject to the Treasury Clearing Mandate.

342 17 C.F.R. § 240.17ad-22(a) (defining "eligible secondary market transaction"); see also Adopting Release, 89 Fed. Reg. at 2740 (discussing that the Treasury Clearing Mandate only applies to transactions of a type currently accepted for clearing).

343 Adopting Release, 89 Fed. Reg. at 2740 ("[The Treasury Clearing Mandate] does not impose a requirement on a U.S. Treasury securities CCA to offer additional products for clearing.").

344 17 C.F.R. § 240.17ad-22(a).

345 FICC accepts new products and types of transactions for clearing by filing a proposed rule change with the SEC. See Adopting Release, 89 Fed. Reg. at 2759 (stating, in reference to FICC's Government Securities Division Same-Day Settling Service, that the SEC would "consider any proposal to provide additional clearing of repo start legs in particular access models . . . consistent with its obligations under Section 19(b) of the Exchange Act."); see also DTCC and FICC, *Comment Letter Re: Standards for Covered Clearing Agencies for U.S. Treasury Securities and Application of the Broker-Dealer Customer Protection Rule With Respect to U.S. Treasury Securities* (Dec. 27, 2022) at 12, available at https://www.sec.gov/comments/s7-23-22/s72322-20153700-321268.pdf (explaining that, before accepting a new transaction type for clearing, FICC engages in a comprehensive process, including engaging with participants, regulators and stakeholders, to identify benefits and costs from making the necessary changes to accommodate new transaction types).

# Implications of Use of the RSN for Satisfaction of Certain Broker-Dealer Regulatory Requirements

## FINRA Rule 11860: Confirmation and Affirmation through Clearing Agencies

FINRA Rule 11860 establishes procedures that a FINRA member broker-dealer must follow when accepting orders from a customer of depository eligible transactions pursuant to an agreement whereby payment for securities purchased or sold is to be made by an agent of the customer (e.g., a settlement bank or broker acting on a DvP or "receive versus payment" (RvP) basis). These procedures include, in relevant part, that the FINRA member must utilize the facilities of a registered or exempt clearing agency for the book-entry settlement of such depository eligible transactions (i.e., securities for which confirmation, affirmation or book entry settlement can be performed through the facilities of a clearing agency).[346] FINRA Rule 11860 further requires that the facilities of either (1) a registered or exempt clearing agency or (2) a qualified vendor (i.e., a confirmation and affirmation service that meets the requirements of subsection (b)(3) of the Rule)[347] be utilized for the "electronic confirmation and affirmation" of all depository eligible transactions.[348]

The Client-to-Client IG Bond DvP Settlement Use Case is subject to FINRA Rule 11860 because it contemplates settlement of transactions involving IG bonds, which are "depository eligible transactions" for which book-entry settlement can be performed at a CSD.[349] The first described portion of FINRA Rule 11860 would be satisfied by the Client-to-Client IG Bond DvP Settlement Use Case so long as the CSD was registered or exempt. The second described portion of FINRA Rule 11860 would likely be satisfied if RSN Members used the services of an existing matching vendor (e.g., Omgeo, Bloomberg, SS&C, etc.) for electronic confirmation and affirmation prior to submitting instructions to the RSN FMI for settlement. It is also possible that qualified vendors could be integrated into an operational RSN through their own Partitions, although this was not specifically considered in the PoC. Alternatively, the second described portion of FINRA Rule 11860 would also be satisfied if the RSN FMI were a registered or exempt clearing agency,[350] or became a qualified vendor.

FINRA Rule 11860 would not apply to the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case or the Cross-Network Intraday Repo Settlement Use Case because they involve transactions in exempted securities (i.e., U.S. Treasury securities). FINRA Rule 11100 excepts transactions in securities exempted under Section 3(a)(12) of the Exchange Act, including U.S. Treasury securities, from the scope of the FINRA 11000 Series (including Rule 11860).[351] As a result, with respect to these use cases, RSN Members would not be subject to FINRA Rule 11860.

## Compliance with SEC and FINRA Recordkeeping Requirements

Section 17(a)(1) of the Exchange Act, related Exchange Act Rules 17a-3 and 17a-4 and related FINRA rules (collectively, the "Broker-Dealer Recordkeeping Rules") broadly require broker-dealers to maintain books and records pertaining to their proprietary business activities and customer account ledgers. Broker-dealer RSN Members in all use cases would remain subject to existing recordkeeping obligations relating to their proprietary business activities.

346 See FINRA Rule 11860(a)(5); FINRA Rule 11860(b)(2) (defining "depository eligible transactions").

347 A "qualified vendor" is defined as a vendor or electronic confirmation and affirmation service that meets the requirements of FINRA Rule 11860(b)(3), which include, among others, (1) submitting certain trade information to a clearing agency in a compliant format, (2) certifying certain information about the confirmation/affirmation system to its customers, (3) submitting audit reports to the SEC, (4) notifying the SEC Staff of changes to the confirmation/affirmation service and (5) providing FINRA with copies of submissions made to the SEC Staff. See FINRA Rule 11860(b)(3).

348 See FINRA Rule 11860(a)(5).

349 See id.

350 Section 3 of this Report, under "RSN FMI as a Clearing Agency," provides further analysis of the potential for the RSN FMI to register as a clearing agency or obtain an exemption from registration.

351 See FINRA Rule 11100; Letter from FINRA to SEC, *Regulation of U.S. Treasury Securities* (Oct. 17, 2016) ("The [Rule 11000 Series] currently excludes transactions in exempted securities, including government securities."), available at https://www.sec.gov/divisions/marketreg/letter-from-finra-regulation-of-us-treasury-securities.pdf; FINRA, *Filing of Proposed Rule Change* (April 26, 2021) at 20 ("Paragraphs (a)(2) through (a)(5) of FINRA Rule 11100 also provide exceptions for specific types of securities, including exempted securities, municipal securities, redeemable securities issued by investment companies and Direct Participation Program Securities."), available at https://www.finra.org/sites/default/files/2021-04/SR-FINRA-2021-008.pdf.

RSN Members in the Client-to-Client IG Bond DvP Settlement Use Case (the only use case involving customer transactions in securities) would also be expected to comply with recordkeeping obligations regarding customer transactions and account ledgers. As discussed in this Report, the RSN Ledger would serve as the definitive record between RSN Members of transfers of tokenized commercial bank deposits, tokenized central bank deposits and Tokenized Securities settled through the RSN. However, for the reasons discussed below, reconciliation of off-chain books and records following the point of settlement finality on RSN would likely be necessary for RSN Members to fulfill their regulatory obligations.[352]

By way of background, the Broker-Dealer Recordkeeping Rules require broker-dealers to maintain and preserve books and records that meet certain requirements.[353] Exchange Act Rule 17a-3 defines "books and records" broadly, including ledgers reflecting customer accounts,[354] debits and credits to such accounts,[355] securities in transfer,[356] and repos.[357] Broker-dealers must also retain communications relating to customer account ledgers, securities records and trade confirmations.[358] Applicable FINRA rules incorporate substantially similar requirements.[359]

Moreover, Exchange Act Rule 17a-4 specifies the manner and length of time that records must be maintained.[360] This includes a requirement to maintain electronic records either in (1) a "Write Once, Read Many" ("WORM") compliant format or (2) a manner that complies with the audit-trail alternative requirement to ensure that records are accurate and can later be reproduced.[361] The SEC stated that an objective of adding the audit-trail alternative was "to make the rule more technology neutral" and to "adapt to new technologies."[362] In doing so, however, the SEC did not address how new technologies could be used to facilitate compliance with certain aspects of the Broker-Dealer Recordkeeping Requirements. For example, Rule 17a-4 also requires that broker-dealers maintain backup electronic records "in a manner that will serve as a redundant set of records if the original electronic recordkeeping system" is otherwise inaccessible.[363] In keeping with its objective to be "technology neutral," the final amendments did not specify how the backup electronic recordkeeping system must achieve this level of redundancy.[364] In light of this and other uncertainties as to how the SEC would treat the use of the RSN Ledger to facilitate compliance with the Broker-Dealer Recordkeeping Rules, the following sections discuss the mechanics of recordkeeping on the RSN and the regulatory considerations for broker-dealer RSN Members.

Just as each RSN Member would maintain within its Partition a ledger that would serve as the definitive record of the status of payment transactions settled through the RSN, each RSN Member would also maintain within its Partition its own ledger recording security entitlements held by clients. The individual RSN Member would have sole responsibility for and full control over this ledger, subject to agreed-upon automatic updates based upon transactions specifically approved by the relevant RSN Member. Each RSN Member would be contractually required to update its ledger upon the completion of a transaction through the RSN (which could be through the use of technology or systems provided by the RSN FMI), and the RSN Member would, in any event, be required to update its records to reflect those settlements just as it would reflect settlements on other external trading platforms and settlement systems. Each transaction would require the affirmative consent of each relevant RSN Member at the time of its execution. In other words, each RSN Member would have full control over whether any transaction is completed, as well as full control over changes to its ledger.

352 We do not believe that RSN Members reconciling off-chain books and records should affect the conclusions reached regarding settlement finality in Section 4 of this Report. We are not aware of there being any disputes as to the finality of settlements taking place on a settlement system (i.e., DTC) solely because a broker-dealer maintains its own records to reconcile against the settlement system's records.

353 See generally 15 U.S.C. § 78q(a)(1); 17 C.F.R. §§ 240.17a-3, 240.17a-4; FINRA Rule 4511.

354 17 C.F.R. § 240.17a-3(a)(3).

355 Id.

356 Id. § 240.17a-3(a)(4)(i).

357 Id. § 240.17a-3(a)(4)(vii).

358 Id. § 240.17a-3(a)(20).

359 See generally FINRA Rule 4510-4518.

360 See generally 17 C.F.R. § 240.17a-4.

361 See id. § 240.17a-4(f)(2)(i); Electronic Recordkeeping Requirements for Broker-Dealers, Security-Based Swap Dealers, and Major Security-Based Swap Participants, Exchange Act Release No. 34-96034, File No. S7-19-21, 87 Fed. Reg. 66,412, 66,413 (Nov. 3, 2022).

362 87 Fed. Reg. at 66,421.

363 See 17 C.F.R. § 240.17a-4(f)(2)(v)(A).

364 See 87 Fed. Reg. at 66,421.

The ledgers maintained by broker-dealer RSN Members would remain subject to all present and future Broker-Dealer Recordkeeping Rules, as those rules have been described above, either directly or through other means satisfactory to the SEC and FINRA. However, although records maintained as envisioned in the PoC on RSN Member Partitions should be capable of being designed to satisfy RSN Members' obligations under Federal securities laws, the SEC may nevertheless conclude that records maintained on RSN Member Partitions may not satisfy existing recordkeeping obligations. Despite statements by the SEC that its Broker-Dealer Recordkeeping Rules are technology neutral, the SEC has expressed significant concerns over the use of shared ledger technology in the securities markets, including the use of non-traditional ledgers, given the critical importance of these records to the SEC both in supervising and examining securities market participants.[365]

To the extent that the RSN Partitions could facilitate compliance with customer-related recordkeeping obligations (relevant to the Client-to-Client IG Bond DvP Settlement Use Case), there would, at a minimum, need to be pseudonymous identifiers contained within RSN Partitions on a customer-by-customer basis, recording which customer owns which positions. Keeping customer-specific records would not impact other sections of this Report analyzing the applicability of Article 8 of the UCC, provided that the RSN Rulebook makes clear that the inclusion of such records would not result in individual claims to specific securities, and that customers would still have a pro rata claim for security entitlements held by RSN Members both within and outside the RSN, consistent with the UCC.[366]

Based on ambiguity concerning digital record formats and the SEC's general skepticism regarding the use of distributed ledger technology in the securities market, it is unclear whether the SEC would accept records maintained on the RSN Ledger or broker-dealer RSN Member Partitions in satisfaction of those RSN Members' obligations under Federal securities laws. However, each use case evaluated in the PoC contemplates an off-chain reconciliation of books and records, consistent with state change notifications provided by the RSN FMI, where RSN Members would be able to update their off-chain books and records consistent with their existing recordkeeping practices. Although records maintained on the RSN Ledger or the RSN Member Partitions should also be capable of being designed to satisfy RSN Members' obligations under Federal securities laws, off-chain reconciliation would facilitate RSN Member compliance with the Broker-Dealer Recordkeeping Rules discussed above.

### Compliance with SEC and FINRA Customer Protection and Margin Requirements

As currently envisioned, participation in the RSN, as contemplated in the PoC, would not necessarily change or have an effect on RSN Members' compliance with applicable customer protection and margin requirement rules. This section provides an overview of applicable rules, and outlines RSN design assumptions necessary to achieve this result.

Under Exchange Act Rule 15c3-3 (the "Customer Protection Rule"), broker-dealers are required to, among other things, maintain possession or control of customer fully paid and excess margin securities, and maintain reserves of funds or securities that are at least equal to the amount of cash owed to customers and to the proprietary accounts of other broker-dealers ("PAB accounts").[367] Regulation T and FINRA Rule 4210 require broker-dealers to collect margin for various sorts of extensions of credit.[368]

As stated, the PoC would not change or have an effect on RSN Members' compliance with Rule 15c3-3 or the Regulation T and FINRA Rule 4210 margin requirements. This conclusion is based on the design of the RSN, as contemplated in the PoC, which assumes that: (1) RSN Members would follow their normal processes for reducing customer fully paid and excess margin securities to a good control location and making customer reserve and PAB account deposits; (2) customer reserve accounts and PAB account deposits would not be tokenized; (3) RSN Members would not hold Tokenized Securities within a good control location; and (4) RSN Members would not be relying on Tokenized Deposits or Tokenized Securities as regulatory margin.

365 See, e.g., Safeguarding Advisory Client Assets, Release No. IA-6240, File No. S7-04-23, 88 Fed. Reg. 14,672, 14,676 (March 9, 2023) (discussing the "technological, legal, and regulatory risks" posed by using blockchain technology "as a method to record ownership and transfer assets"); FINRA, *Distributed Ledger Technology: Implications of Blockchain for the Securities Industry* (Jan. 2017) at 1, 13 ("[A] DLT application that seeks to alter clearing arrangements or serve as a source of recordkeeping by broker-dealers may implicate FINRA's rules related to carrying agreements and books and records requirements" and "[b]roker-dealers may want to carefully consider the capabilities and limitations of the DLT network before determining whether they are able to rely on the records developed within the network to fulfill their minimum recordkeeping requirements."), available at https://www.finra.org/sites/default/files/FINRA_Blockchain_Report.pdf.

366 Section 4 of this Report, under "Securities Settlement," contains a more detailed discussion of the relevant UCC provisions, as enacted in New York.

367 See 17 C.F.R. § 240.15c3-3(a)(16).

368 See generally 12 C.F.R. pt. 220; FINRA Rule 4210.

To the extent that the RSN, if it is implemented, incorporates deviations from these assumptions to facilitate faster and more frequent movement of securities from reserve accounts and/or good control locations or to rely on Tokenized Securities as regulatory margin, there would be additional regulatory considerations with respect to the SEC and FINRA. For example, the SEC and FINRA take the view that broker-dealers must have control over securities held as margin beyond what is required to have a perfected security interest,[369] and they may raise questions as to whether a broker-dealer has such control with respect to tokenized assets. Outside of special purpose broker-dealers relying on temporary Staff no-action relief,[370] the SEC and FINRA do not generally permit broker-dealers to custody digital asset securities[371] for customers. As a result, if the RSN were to seek to recognize additional benefits by deviating from these assumptions, it would be necessary to evaluate proposed technical changes in light of applicable customer protection and margin rules.

369 See FINRA, *SEA Rule 15c3-1 Interpretations: Rule 15c3-1(c)(2)(iv)(E)/09*, at 328 (providing that collateral to receivable must be in physical possession or control), available at https://www.finra.org/sites/default/files/SEA.Rule_.15c3-1.Interpretations.pdf.

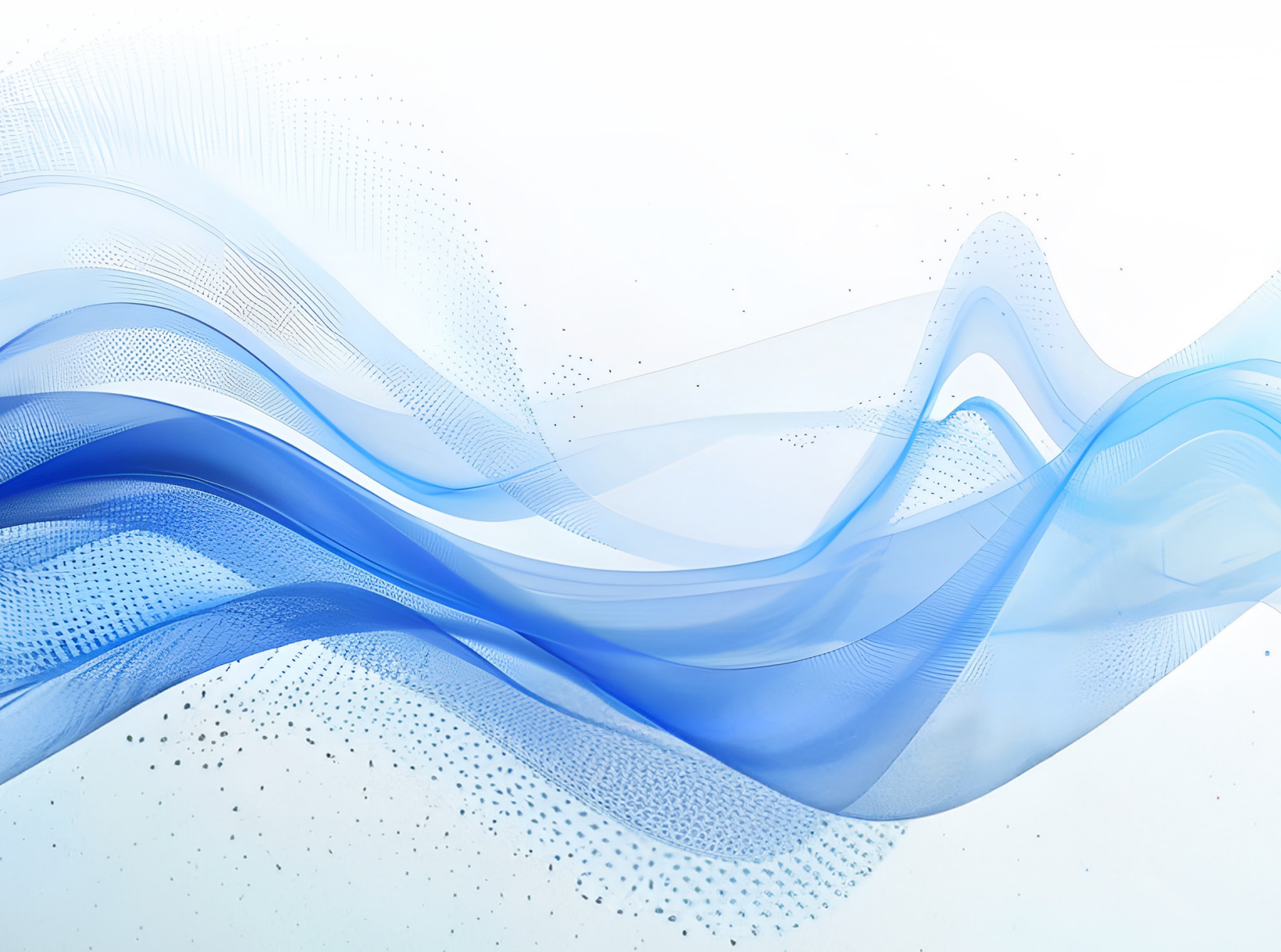
370 See Custody of Digital Assets Securities by Special Purpose Broker-Dealers, Exchange Act Release No. 34-90788, File No. S7-25-20, 86 Fed. Reg. 11,627, 11,628 (Feb. 26, 2021) ("[T]he Commission's position, which will expire after a period of five years from the publication date of this statement, is that a broker-dealer operating under the circumstances set forth in Section IV will not be subject to a Commission enforcement action on the basis that the broker-dealer deems itself to have obtained and maintained physical possession or control of customer fully paid and excess margin digital asset securities for the purposes of paragraph (b)(1) of Rule 15c3-3."); SEC Div. Trading & Mkts. & FINRA, *Joint Statement on Broker-Dealer Custody of Digital Asset Securities* (July 8, 2019), available at https://www.finra.org/media-center/news-releases/2019/joint-statement-broker-dealer-custody-digital-asset-securities.

To date, only two entities have received approval to operate as special purpose broker-dealers. See Prometheum Inc., *Prometheum Receives First of Its Kind Approval From FINRA to Clear and Settle Digital Asset Securities*, Business Wire (Jan. 10, 2024), available at https://www.businesswire.com/news/home/20240110419249/en/Prometheum-Receives-First-of-Its-Kind-Approval-From-FINRA-to-Clear-and-Settle-Digital-Asset-Securities; tZERO Group Inc., *tZERO Receives Landmark Approval to Custody Digital Securities and Support End-to-End Digital Securities Lifecycle in the United States*, PR News Wire (Sept. 10, 2024), available at https://www.prnewswire.com/news-releases/tzero-receives-landmark-approval-to-custody-digital-securities-and-support-end-to-end-digital-securities-lifecycle-in-the-united-states-302242412.html.

371 For this purpose, the SEC defines a "digital asset" as "an asset that is issued and/or transferred using distributed ledger or blockchain technology ('distributed ledger technology'), including, but not limited to, so-called 'virtual currencies,' 'coins,' and 'tokens.'" See 86 Fed. Reg. at 11,627 n.1.

# Section 8

Contractual Enforceability



# RSN Rulebook

The operation of the RSN, as contemplated in the PoC, would be governed by terms and conditions that would be established by an RSN Rulebook. The RSN Rulebook would also govern the rights and obligations, in respect of the RSN, of the RSN Members and the RSN FMI. The RSN Members and the RSN FMI would agree to the conditions set forth in the RSN Rulebook and would, consistent with applicable law, be contractually bound by the terms set out in the RSN Rulebook.

The RSN Rulebook would be created in a later phase of the project. However, the Working Group has identified several topics that would likely be included in the RSN Rulebook, subject to further negotiation.

One topic that should be addressed in the RSN Rulebook is the eligibility criteria for persons to become RSN Members. Only Members would be permitted to interact directly with the RSN FMI in respect of the RSN, including by initiating transactions by forwarding messages to the RSN FMI, maintaining a Partition within the RSN or responding with an accept or reject to proposed transactions distributed by the RSN FMI. Based on the use cases discussed in the PoC, not all Members would engage in all of these activities. For example, banks and broker-dealers that participate in the RSN, as well as operators of third-party regulated networks that interact with the RSN, would be permitted to initiate transactions. However, based on the use cases evaluated in the PoC, it is possible that, unlike bank and broker-dealer Members, operators of third-party regulated networks would not be permitted to maintain Partitions within the RSN.

Accordingly, the RSN Rulebook would likely define categories of Members, with a Member's category determining the specific activities in which it would be permitted to engage with respect to the RSN. Based on the use cases contemplated in the PoC, we believe Members could be categorized into at least the following four categories:

- *Bank and broker-dealer users*: As described in Sections 2 and 4 above, it was assumed in the PoC that all payments settled through the RSN would involve at least two RSN Members that (in all use cases other than the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case) settle with a Federal Reserve Bank, and that each of those RSN Members would be required to have a master account at a Federal Reserve Bank. Bank users of the RSN were therefore assumed to include only institutions eligible for a master account at a Federal Reserve Bank. In general, to be eligible for a master account at a Federal Reserve Bank, a party must be a U.S. depository institution or a U.S. branch or agency of a foreign bank.[372] For the Client-to-Client IG Bond DvP Settlement Use Case, it was assumed that registered U.S. broker-dealers would also be involved as RSN members. These bank and broker-dealer Members would be permitted to initiate transactions through the RSN by forwarding messages to the RSN FMI. These Members would also have Partitions within the RSN on which they would maintain ledgers reflecting positions with respect to Tokenized Deposits and/or Tokenized Securities. In addition, these Members would respond with an accept or reject to proposed transactions distributed by the RSN FMI that involve changes in their respective Partitions.

- *Operators of third-party regulated networks that may interact with the RSN*: Based on the use cases evaluated in the PoC, these Members could include network operators such as Broadridge (with respect to Broadridge DLR), Mastercard (with respect to MTN) and Tassat (with respect to the Tassat Interbank Network). These Members would be permitted to initiate transactions through the RSN by communicating (including through a service such as direct API connectivity to RSN or the Swift interlinking prototype) messages to the RSN FMI. Based on the use cases evaluated in the PoC, these Members would not have Partitions in the RSN, would not record positions on the RSN Ledger and would not have a role in responding to proposed transactions distributed by the RSN FMI.

- *Operators of FMUs and other settlement infrastructure*: Based on the use cases evaluated in the PoC, these Members could include a CCP, CSD or clearing bank. These Members would have Partitions used to effect relevant transactions through the RSN and record related positions and would respond with an accept or reject to proposed transactions distributed by the RSN FMI that involve changes in those Partitions. However, these Members generally would not be permitted to initiate transactions through the RSN.

- *Federal Reserve Banks*: These Members, like operators of FMUs or other settlement infrastructure, would have Partitions in the RSN and would respond with an accept or reject to proposed transactions distributed by the RSN FMI that involve changes in those Partitions. Based on the use cases evaluated in the RSN, these Members generally would not be permitted to initiate transactions through the RSN and each participating Federal Reserve Bank may, depending on the design of the RSN, have

372 12 U.S.C. §§ 342, 347b(b)(5), 1813; see also Federal Reserve Banks, Operating Circular No. 1, Account Relationships (Sept. 1, 2023).

two Partitions: one used in connection with relevant funds transfers (i.e., a "Fed Cash" Partition) and one used in connection with relevant securities transfers (i.e., a "Fed Securities" Partition).[373]

Another topic that would likely be addressed in the RSN Rulebook is the criteria that a transaction would need to satisfy for it to be submitted for settlement through the RSN. For an RSN Member that is a bank or broker-dealer, a transaction to be processed through the RSN could be for the institution's own account or on behalf of a customer. The Member, when submitting a transaction for settlement, could be required to represent (or could be deemed to represent), for example, that it has all necessary authorizations to initiate each transaction it submits to the RSN[374] and that it has screened the transaction in accordance with its applicable sanctions and AML/CFT policies, procedures and processes.

An RSN Member that is an operator of a third-party regulated network that interacts with the RSN, in contrast, generally could initiate a transaction only on behalf of one or more participants in the relevant third-party regulated network to settle an obligation arising from a transaction initiated through that network. The participants in that network may or may not be RSN Members. Accordingly, the RSN Rulebook could require an operator of a third-party regulated network, when submitting a transaction to the RSN for settlement, to represent that it is authorized to act as agent on behalf of the relevant participants in the other network to initiate the transaction for settlement through the RSN[375] and to agree that the RSN FMI and RSN Members may rely on that authorization in processing the transaction through the RSN. The RSN Rulebook also could require the operator to make additional representations that other RSN Members may determine necessary or appropriate, including, for example, in respect of sanctions and AML/CFT compliance, that the participants in the other network are required to maintain sanctions and AML/CFT compliance programs and to screen transactions initiated through that other network in accordance with their respective sanctions and AML/CFT policies, procedures and processes.[376] The RSN Rulebook also could provide the RSN FMI with rights to verify that all required representations and agreements made by operators of third-party regulated networks are accurate and that those networks would not otherwise pose undue risks on the RSN, the RSN FMI or RSN Members. This verification could be in the form of requiring the operators of third-party regulated networks to provide certifications to the RSN FMI on a periodic basis, in the form of providing the RSN FMI with rights to audit such operators and relevant third-party regulated networks and/or other mechanisms.

The RSN Rulebook would likely address several other aspects of participation in and operation of the RSN and the RSN FMI, including, among other things:

- the application process for prospective RSN Members, which could differ based on the category in which a prospective RSN Member would participate in the RSN;
- the criteria for relevant RSN Members to approve transactions (i.e., to respond with an accept to proposed transactions distributed by the RSN FMI) and the right of the RSN FMI and RSN Members to rely upon the due authorization of approvals by an RSN Member through the RSN;
- the criteria for the settlement event to occur;
- the legal effect of the different steps in the completion of a transaction through the RSN, including the legal effect of the operation of the smart contracts utilized by the RSN;[377]
- the types of tokenized assets in which transactions would be permitted through the RSN;
- the operations and governance of the RSN and the RSN FMI;
- the obligations of the RSN FMI with respect to Members and the RSN (including establishing a possible agency relationship);

373 The RSN Rulebook could provide that an RSN Member may participate in the RSN in more than one capacity, and therefore in more than one category. For example, a bank that participates in the RSN to initiate and settle transactions on behalf of itself and its customers may also operate settlement infrastructure, for example, as a clearing bank. In such a case, the requirements imposed by the RSN Rulebook would likely apply based on the capacity in which the Member is acting with respect to a particular interaction with the RSN or the RSN FMI.

374 A bank or broker-dealer Member also would likely be required, assuming it determines to approve the transaction, to provide that approval by responding with an accept to the proposed transaction when distributed by the RSN FMI. As described below, the RSN Rulebook would likely provide that the RSN FMI and other RSN Members may rely upon the due authorization of this approval.

375 This authorization may be provided, for example, in the rules or other governing arrangements applicable to the third-party regulated network.

376 Please refer to Section 9 below for discussion of sanctions and AML compliance with respect to the RSN, as contemplated in the PoC.

377 As discussed in Section 4 above, if the RSN were a "funds-transfer system" under Article 4-A of the UCC, the provisions of the RSN Rulebook addressing settlement finality could facilitate the finality analysis for payments through the RSN. Additionally, if the RSN were a "clearing corporation" under Article 8 of the UCC, the provisions of the RSN Rulebook could, if appropriate, supersede otherwise applicable requirements of Article 8.

- the conditions that must be satisfied before a third-party regulated network may interact with the RSN, which could include a requirement that the RSN Rulebook be amended or supplemented to address interaction with the other network, including, for example, any processes that would be required to coordinate settlement between the RSN and the other network;
- the standards for the RSN Members' compliance with their obligations as Members in the RSN and related requirements and indemnification and exculpation provisions;
- a dispute resolution mechanism applicable to all entities involved in operating or utilizing the RSN;
- security standards applicable to the RSN Members and the facilities they use to interact with the RSN;
- amendments to the RSN Rulebook;
- the consequences of a breach of the RSN Rulebook; and
- rules regarding correcting errors in submitted transactions.

Although no conclusions can be reached as to enforceability until the design and operation of the RSN has been developed, and the RSN Rulebook has been drafted and has been reviewed by counsel in all relevant jurisdictions, we have not identified any provisions among those discussed above that raise obvious concerns as to their enforceability under New York law, subject to the usual limitations (e.g., bankruptcy, principles of equity, competition law, etc.).

# Choice of Law—New York

We have anticipated that the RSN Rulebook would likely be governed by the laws of the State of New York. Based on the structure of the RSN, as contemplated in the PoC, we believe that New York would provide an appropriate law to govern the RSN, and an appropriate forum for related disputes, for the following reasons:

- New York has a well-developed and extensive set of commercial law jurisprudence with respect to the governance of clearing systems and other financial market utilities, including CHIPS, DTC, the New York Stock Exchange and CLS. This body of law would provide a significant source of guidance in the development of the RSN and facilitate the resolution of legal questions, both as the system is developed and in the event of future disputes relating to the RSN.
- New York has enacted favorable choice of law and forum rules (i.e., parties may select New York as the forum to adjudicate their claims even if none of the parties, the property or transaction have a direct relationship with New York).[378]
- New York is nationally and internationally considered one of the preeminent forums for the adjudication of commercial disputes, because of its well-developed body of precedents and a seasoned judicial bench familiar with financial transactions. New York law is widely used as one of the two principal choices of law for use in international transactional matters; the other—English law—would be less appropriate given the involvement of the Federal Reserve Banks, and the necessary nexus with the United States for dollar and U.S. securities settlements through the RSN.

# Legal Effect of Smart Contracts

We were asked to assess the impact of the use of smart contracts with respect to the enforceability of the rights and obligations of the parties, and the treatment of transactions settled through the RSN, in view of their potential role in the operation of the RSN. At least at this stage, we view the implementation of a shared ledger (which may be operated with smart contracts) within the RSN as a mechanism used to carry out certain steps within the RSN. These steps would have legal significance, but that significance would be derived from the RSN Rulebook and not from the mere execution of the steps using software involving smart contracts. We do not view the smart contracts as having independent legal significance in and of themselves, and thus the use of the smart contracts does not impact the analysis contained in this Report.[379]

At this stage we have not identified any effect that the use of smart contracts, as opposed to another type of programming language or mechanism, would have on the enforceability of the RSN Rulebook, as discussed above. We understand that smart contracts could be used for other functions in the RSN, such as to provide a mechanism for users to give instructions to RSN Members. Again, the smart contract would be a mechanism for releasing or transmitting instructions when specified conditions are met and would not be intended to have legal significance separate from the instructions themselves.

378 See N.Y. Gen. Oblig. Law § 5-1402. Although initially, all transactions would likely have a nexus to New York in view of the involvement of the FRBNY and other financial market utilities or settlement infrastructure that are likely to be located in New York, we believe New York's choice of law rules provide certainty with respect to venue and forum in the context of dispute resolution involving RSN Members in different locations. We also believe this is a particularly relevant consideration in light of the Client-to-Client Investment Grade Bond DvP Settlement, Cross-Network Interbank Settlement and Cross-Network Correspondent Interbank Settlement Use Cases, each of which contemplates transactions on behalf of customers of RSN Members that may be located outside of New York.

379 Notwithstanding the reference in the term to a "contract," a "smart contract" (as defined above in footnote 7) refers to software code that automatically executes upon the occurrence of predefined conditions.

# Section 9

AML and Sanctions Compliance

# Scope and Limitations

Most RSN Members are expected to be banks or other financial institutions that are subject to a broad range of U.S. sanctions, AML and CFT requirements, and one of the questions evaluated in the PoC is how the RSN would comply with those requirements. This section explains how these requirements would apply to each RSN Member, based on the characteristics assumed for purposes of the PoC. The analysis below is limited to the use cases evaluated in the PoC.

If an operational RSN is developed, the RSN FMI may establish additional compliance standards or requirements as part of the RSN Rulebook. The PoC did not consider any such standards or requirements. The PoC only considered U.S. AML/sanctions responsibilities of the individual RSN Members.[380] Furthermore, non-U.S. sanctions, AML, CFT and similar requirements may apply to RSN Members who are located in or subject to the jurisdiction of other countries, but these requirements are beyond the scope of this Report. Accordingly, analysis of these requirements by counsel in those jurisdictions will be necessary before the structure of the RSN is finalized.

# Sanctions and Compliance Requirements

## Sanctions

*OFAC Background.* U.S. sanctions requirements apply to U.S. persons and transactions within the United States. As described above in Section 8, it was assumed in the PoC that RSN Members that were bank and broker-dealer users of the system may include U.S. banks, U.S. branches and agencies of foreign banks and registered U.S. broker dealers. It was also assumed that any clearing bank involved in a transaction settled through the RSN (in the case of the Centrally-Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case) would be a financial institution in the United States. All of these institutions would be required to comply with U.S. sanctions. Furthermore, in all cases, all transactions through the RSN would be required to be conducted in compliance with related requirements, including sanctions. Depending on the structure and operations of an operational RSN, there may also be additional touchpoints to the U.S. (for example, relating to the RSN FMI and technology underlying the RSN).

OFAC is the U.S. agency primarily responsible for administering the U.S. sanctions regime. OFAC has the authority to take civil enforcement action against persons involved in prohibited transactions on the basis of strict liability, and criminal penalties may also be imposed for violating sanctions, including applicable Executive Orders and regulations. The agency has broad discretion in determining how to take action against sanctions violations, and, in light of the strict liability regime, OFAC does not prescribe specific compliance measures that those subject to the U.S. sanctions regime must take. OFAC has long recommended a tailored, risk-based approach to sanctions compliance and has published detailed guidelines for the exercise of its authority. In May 2019, OFAC published a detailed framework for compliance commitments.[381]

Under the OFAC Framework, a sanctions compliance program must be predicated on and incorporate five essential factors: (1) management commitment; (2) risk assessment; (3) internal controls; (4) testing and auditing; and (5) training.[382] Each commercial bank or broker-dealer RSN Member would be required to apply its program to transactions that it settled through the RSN for compliance with existing requirements, and to implement appropriate internal controls to address sanctions risk arising from transactions effected through the RSN. Each of these RSN Members would be expected to review the terms of the RSN, including the proposed transactions and other Members in the system, to ensure that its sanctions compliance program addresses any risks that may differ from its existing practices.

*Relevant OFAC Guidance.* In 2022, OFAC issued guidance for instant payment systems[383] that is instructive to the RSN (the "Payment System Guidance").[384] The Payment System Guidance addresses risk factors specific to a system such as the RSN, including the nature and value of the payments made and the availability of compliance technologies and solutions. The Payment System Guidance highlights three key compliance features, each of which would be addressed through aspects of the RSN, as evaluated in the PoC.

380 It is possible that in a later stage, the RSN could consider shared AML/sanctions responsibilities or utilities, but that was not explored as part of the PoC.

381 See OFAC, *A Framework for OFAC Compliance Commitments* (May 2, 2019), available at https://ofac.treasury.gov/media/16331/download?inline [hereinafter "OFAC Framework"].

382 OFAC Framework, at 1.

383 See OFAC, *Sanctions Compliance Guidance for Instant Payment Systems* (Sept. 30, 2022), available at https://ofac.treasury.gov/media/928316/download?inline [hereinafter "Payment System Guidance"].

384 Although the Payment System Guidance is addressed to payment systems, these features could be applied to the RSN with respect to securities settlement as well.

These features are:

- *Enabling communication among participating financial institutions involved in processing payments*: As contemplated in the PoC, all RSN payment and securities settlement instructions would be required to comply with a singular, rich remittance data standard and standardized messaging in ISO 20022 or other industry-standard formats. In addition, the PoC explored interoperability between different networks and how a system could be designed that enabled different parties to communicate through and interact with the RSN, and we expect that an operational RSN would include functionality that would permit RSN Members to communicate about potential sanctions concerns when addressing a payment instruction (through existing means or new technology, as appropriate).

- *Exception processing*: As contemplated in the PoC, RSN Members would have the option to either "accept" or "reject" a transaction, but it was discussed that in a future phase, when the RSN FMI distributes a proposed transaction and request for approval, the RSN Members could have the option to either accept, reject or "hold" the transaction. The exact details and parameters for "holds" would be determined in the RSN Rulebook in a later phase of the project, but we understand that the PoC contemplated that a "hold" would provide an RSN Member with time for any additional investigation that could be needed prior to accepting or rejecting a settlement instruction (or taking other action such as holding or blocking a transaction).[385] In any event, the structure of the RSN contemplated in the PoC would not permit any automated processing of a payment or securities settlement without the approval of each RSN Member in the relevant settlement path.

- *Establishing minimum sanctions compliance expectations for members*: As noted above, each applicable RSN Member would be required to maintain and adhere to its own sanctions compliance program, as applicable. All RSN Members contemplated in the PoC would be subject to compliance with U.S. sanctions requirements, and the RSN Rulebook may impose additional requirements.

In the future, the RSN could become an example of a technological solution to some of the risks highlighted in this guidance, depending on the scope of uses it is designed to cover. For the use cases considered, because the technology permits payment and securities settlement instructions to be shared with multiple participants in a transaction chain before the transaction is initiated, and requires the prior approval of each RSN Member in the chain, it has the potential to limit certain risks by benefiting from all RSN Members' sanctions-related due diligence prior to the completion of a single payment (or transfer of a security entitlement) in the settlement chain.

OFAC has also issued guidance with respect to digital and virtual currencies, most comprehensively in a 2021 publication (the "Virtual Currency Guidance").[386] OFAC distinguishes between "digital currency," which includes "sovereign cryptocurrency, virtual currency (non-fiat), and a digital representation of fiat currency," and "virtual currency," which is "a digital representation of value that functions as (i) a medium of exchange; (ii) a unit of account; and/or (iii) a store of value; and is neither issued nor guaranteed by any jurisdiction."[387] As discussed in more detail in Section 5, the Tokenized Deposits and Tokenized Securities and related tokens would be digital records, or means of recording ownership or transfers of ownership, of deposits or securities positions, respectively, held at the RSN Members, which would be distinct from "virtual currency" as defined by OFAC. As a result, they would not meet the OFAC definition of "virtual currency." Similarly, the Tokenized Deposits, Tokenized Securities and related tokens would not be sovereign cryptocurrency or digital representation of fiat currency. Much of the guidance, including guidance around "blocking" virtual currency, would therefore not be applicable to the Tokenized Deposits, Tokenized Securities or related tokens or the RSN. Nonetheless, certain elements of the Virtual Currency Guidance are or could still be applicable to the RSN, depending on how it is developed. For example, the Virtual Currency Guidance suggests using geolocation tools and IP address blocking as a best practice to prevent access by persons in sanctioned jurisdictions.[388]

385 A hold period was not explored in the PoC, but the RSN Technical Feasibility Report demonstrates that the RSN can include functionality for approvals to be time-bound (as demonstrated in the Cross-Network Intraday Repo Settlement Use Case).

386 See OFAC, *Sanctions Compliance Guidance for the Virtual Currency Industry* (Oct. 15, 2021), available at https://ofac.treasury.gov/media/913571/download?inline [hereinafter "Virtual Currency Guidance"].

387 OFAC FAQ 559 (October 15, 2021).

388 Virtual Currency Guidance at 14. An RSN Member could choose to permit a customer to access tokenized commercial bank deposits or Tokenized Securities through a personal account (wallet) or use it for purposes other than making settlements through the RSN. If an RSN Member chose to do so, additional screening may be required and other requirements may be applicable. We have not evaluated the impact of any use of the Tokenized Deposits, Tokenized Securities or related tokens for any purpose other than settling the transactions contemplated by the use cases.

### Transaction-Specific Activity

A crucial element of sanctions compliance is the ability to screen payment or securities settlement instructions and, as appropriate, block or reject transactions that would violate U.S. sanctions. As contemplated in the PoC, the RSN would require each commercial bank or broker-dealer RSN Member to conduct sanctions screening prior to approving a settlement. This would be true even if two RSN Members in a transaction are affiliates—for example, an RSN Member bank and an affiliated RSN Member broker-dealer in the Client-to-Client IG Bond DvP Settlement Use Case.

Under OFAC's regulations, RSN Members would be required to block or reject any transaction that involves persons or property targeted under U.S. sanctions (and the RSN Rulebook would require conformity to such sanctions regime). Generally, when an underlying transaction is prohibited, but there is no blockable interest in the transaction, the transaction is simply rejected, or not processed, and any related property is returned to the originator.[389] OFAC regulations require that, for sanctions programs with blocking provisions, Members block all "property" in which a sanctions target has an interest.[390] In no event would an RSN Member be allowed to transfer property in which a target has an interest, but whether that property is blocked or rejected would depend on the features of the RSN, and may be different from how similar transactions would be addressed outside the RSN. Although in some cases, especially for settlement of payments through the RSN, the process would be similar in many respects to other funds transfer mechanisms, such as wire transfers, there are meaningful differences in the structure of the RSN—in particular, the ability to take certain actions in parallel rather than sequentially—that may lead to different mechanisms for preventing transactions for sanctions compliance purposes.

Whether an RSN Member would be required to block or reject funds in connection with a transaction effected through the RSN would depend on the role of the RSN Member in relation to the specific transaction. Although the term "property" is very broadly defined for OFAC purposes, and includes future or contingent interests,[391] the submission of an instruction to settle a transaction through the RSN would not necessarily create a contingent interest; the status of the transaction may be more consistent with an "inquiry," for purposes of OFAC guidance, at certain points in the transaction process flow.[392] With respect to payments initiated through the RSN, although a payment initiation by an originator is a "payment instruction" (as such term is defined in the Virtual Currency Guidance), that alone may not automatically result in a contingent interest; all RSN Members in the payment chain must agree, in parallel rather than serially, to approve the proposal before the "payment order" that creates the contingent interest is sent by the RSN FMI. Based on existing OFAC guidance in OFAC FAQ 53, distinguishing inquiries and payment instructions, and on the structure of the RSN contemplated in the PoC, an originator's initiating instruction (even if "unconditional" for UCC Article 4-A purposes) is better understood as an inquiry into whether the originator can use the RSN to effect its transfer. This same analysis applies with respect to transfers of Tokenized Securities through the RSN. It is only in the later stage, after all RSN Members involved in the transaction have approved the transfer (as described in more detail in Sections 2 and 4), that a payment or securities transfer order would be released or otherwise processed. In practice, this means that an RSN Member may or may not have blockable interests in funds or securities transferred through the RSN depending on its role in a specific transaction. This analysis requires application of existing OFAC guidance to new concepts, and OFAC outreach may be helpful to confirm this understanding.

Any RSN Member initiating a transaction on behalf of a customer would have an existing relationship with its customer, including deposit liabilities or security positions held for or on behalf of the customer that would be reflected on its ledger within its Partition. In the event of a sanctions hit, that RSN Member bank could have a blockable interest in its customer's funds and/or securities, and would be required to stop the transaction (and would not forward the instruction to the RSN FMI to assemble the transaction chain). However, if there is no sanctions hit and the instruction initiating the transaction is sent to the RSN FMI to construct a settlement path, the rest of the RSN Members in the transaction chain would receive an inquiry related to a payment instruction (i.e., "here are my payment instructions—can I send these funds through the RSN?") in advance of any transaction settlement. All RSN Members in the transaction chain would be required to approve the transaction prior to the concrete instruction (from the RSN FMI as agent on behalf of the various senders) that creates a contingent interest and then ultimately results in a transfer of the funds or securities positions. All RSN Members would be required to comply with OFAC reporting requirements with respect to blocked and rejected transactions.[393] This would ensure that, whether blocked or rejected, any potential

389 For example, this may be because there is no interest of a Specially Designated National ("SDN") or blocked person or government. See OFAC FAQ 36 (Aug. 11, 2020).

390 31 C.F.R. § 501.603; OFAC FAQ 53 (Jan. 15, 2015).

391 OFAC FAQ 53.

392 See "Mapping of Sanctions/AML/CFT Requirements to the RSN" below for a description of the steps where sanctions screening occurs in a transaction process flow.

393 See 31 C.F.R. pt. 501. As an added measure, the RSN Rulebook could require representations that all RSN Members submit required reports to OFAC.

U.S. sanctions violations are reported to OFAC.[394] As noted above, all RSN Members will be required to approve the transaction prior to any transfer of funds or securities positions. To the extent that an RSN Member is subject to another country's sanction regime, that RSN Member could reject an affected transaction, just as it could for any other reason.

### AML/CFT

*Background*. As noted above, as considered in the PoC, all commercial bank or broker-dealer RSN Members would be expected to be U.S. banking entities or U.S. branches of foreign banks that are able to settle with a Federal Reserve Bank, or U.S. registered broker-dealers,[395] and, as a result, would be subject to Federal AML/CFT laws and regulations, including the Bank Secrecy Act ("BSA").[396] The BSA applies to "financial institutions"—a term with a broad definition in the BSA that FinCEN, the administrator of the BSA, has similarly defined to encompass a wide range of entities including banks, brokers or dealers in securities, MSBs, casinos and others.[397]

An extensive patchwork of Federal statutes and regulations govern AML, CFT and KYC programs and related practices.[398] Financial institutions are subject to a wide array of obligations under the BSA, including, but not limited to, requirements to establish and maintain a BSA program, to file suspicious activity reports,[399] and to comply with the travel rule and related recordkeeping rule,[400] discussed below. AML program requirements are product-agnostic. Instead, the regulations emphasize that they must be "risk-based," including, at a minimum, an understanding of "the nature and purpose of customer relationships" and "ongoing monitoring" of "suspicious transactions."[401] As a result, although there are no requirements specific to the RSN as a technological system being used by financial institutions rather than a financial institution itself, the RSN Members would need to apply their existing programs to all their interactions with the RSN. As noted above, each RSN Member maintains a risk-based AML/KYC/CFT compliance program and would be required to continue to apply its program to its transactions on the RSN and implement appropriate internal controls to address AML/CFT risk arising from transactions effected through the RSN. To the extent that an RSN Member is subject to additional state AML/CFT laws and regulations, we expect those would remain applicable to the RSN Member as well. This Report does not address additional requirements that apply to the RSN Members by virtue of their status as financial institutions and that are already in place, such as establishing and maintaining a customer identification program; instead, it only addresses risks that are specific to the RSN Member's use of the RSN.

*Settlement Agent Banks*. In the Cross-Network Correspondent Bank Settlement Use Case, Tassat-powered banks that do not settle with a Federal Reserve Bank would utilize RSN Members as settlement agents; these relationships would be similar to correspondent banking relationships between the Tassat-powered banks and the RSN Member settlement agent banks. Correspondent banking transactions are considered higher risk due to the potential abuse for money laundering and other financial crimes. A bank with correspondent accounts for foreign financial institutions must have a due diligence program that has "appropriate, specific, risk-based, and, where necessary, enhanced policies, procedures, and controls that are reasonably designed to enable the [applicable] financial institution to detect and report, on an ongoing basis, any known or suspected money laundering activity conducted through or involving any correspondent account."[402] The commercial bank RSN Members would remain subject to existing correspondent banking guidance and regulatory expectations from a variety of sources, including the Federal banking regulators (including under the FFIEC BSA/AML Examination Manual) and the Financial Action

394 We acknowledge that concerns may arise in future use cases, such as scenarios involving foreign correspondent banks. For instance, a foreign correspondent bank could reject a transaction due to sanctions imposed by its home country, which may also violate U.S. sanctions. In such cases, no party may be aware of the specific reason for the rejection and obligated to report it.

395 We understand that it may be desirable, if the RSN is ultimately implemented, for the RSN to include additional types of RSN Members or to permit the system to facilitate transfers of stablecoins or e-money. Further analysis would be required with respect to such Members, but we would expect all such Members to be captured by the broad range of entities considered "financial institutions" for purposes of FinCEN regulations.

396 31 U.S.C. § 5311 et seq.

397 See id. § 5312(a)(2); 31 C.F.R. § 1010.100(t). A business may qualify as a "financial institution" under the BSA because it provides "money transmission services"—a phrase that FinCEN has broadly defined to mean "the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means" or any other person engaged in the transfer of funds. See 31 C.F.R. § 1010.100(ff)(5)(i). Under the BSA and FinCEN's implementing rules, a business that provides money transmission services is a "money transmitter," and a money transmitter is one form of MSB. See 31 C.F.R. § 1010.100(t), (ff)(5).

398 See Nicole S. Healy, Chapter 4: Key U.S. Laws and Regulations, Anti-Money Laundering Deskbook: A Practical Guide to Law and Compliance (2022) (collecting authority).

399 31 U.S.C. § 5318(g); 31 C.F.R. § 1020.320(a)(1); 31 C.F.R. § 1010.620.

400 31 C.F.R. § 1010.410, referred to as the "Travel Rule" and "FinCEN Recordkeeping Rule" in this Report.

401 Id. § 1020.210(a)(2)(v).

402 Id. § 1010.610(a).

Task Force,[403] for foreign correspondent banking transactions, and similar considerations may be applicable to settlement agent banking relationships contemplated in the PoC.

*Travel Rule*. The Travel Rule requires banks, brokers or dealers in securities, MSBs and certain other financial institutions to transmit information on certain funds transfers and transmittals of funds to other banks and non-bank financial institutions participating in the transfer or transmittal, and the complementary FinCEN Recordkeeping Rule requires banks, securities brokers or dealers, MSBs and certain other financial institutions to collect and retain information related to certain funds transfers and transmittals of funds. Payment transactions on the RSN would constitute transmittal orders for a transmittal of funds under the FinCEN regulation and (if they are in an amount more than $3,000, which we expect to be true in all cases) would be subject to the Travel Rule.[404] Transactions settled through the RSN would be required to comply with the information requirements in the Travel Rule and Recordkeeping Rule in all transactions sent through the RSN,[405] and the applicable information would be included in the instructions sent by the RSN FMI to the parties in a particular settlement path. Only U.S. dollar transactions in the United States were within scope for the PoC.

For the Cross-Network Correspondent Bank Settlement Use Case, the RSN would involve the use of cover payments to facilitate transfers that involve "intermediary banks." Cover payments "are used by a bank to facilitate funds transfers on behalf of a customer to a beneficiary, most often in another country . . . ."[406] Using existing payment system terminology, the RSN would be organized under a "y-model" framework in which the applicable Federal Reserve Bank would receive and process payment orders in parallel to the other transaction participants.[407] This mechanism is distinct from the direct sequential method of payment and enables synchronization because requisite payment information is split into separate payloads. In general, in a "y-model" framework, the cover intermediary banks do not necessarily see all the information sent to the beneficiary's bank. Both the Basel Committee on Banking Supervision and, subsequently, Federal banking agencies have issued guidance on cover payments to ensure transparency in payment transfers that involve intermediaries. To the extent applicable, in particular if in a future phase, cross-border transactions are brought into scope of the RSN, we anticipate that the RSN Members would comply with guidance from the Federal banking regulators setting forth their supervisory expectations to increase transparency in cross-border transactions and in practice require each intermediary in a funds transfer chain to continue providing information about the originator and beneficiary of the transfer,[408] consistent with their practices for existing payments outside of the RSN.

403 See, e.g., Risk Management Guidance on Foreign Correspondent Banking: Risk Management Guidance on Periodic Risk Reevaluation of Foreign Correspondent Banking, OCC Bulletin 2016-32 (Oct. 5, 2016), available at https://www.occ.gov/news-issuances/bulletins/2016/bulletin-2016-32.html; FFIEC, Expanded Examination Overview and Procedures for Products and Services (Feb. 2015), available at https://bsaaml.ffiec.gov/docs/manual/09_RisksAssociatedWithMoneyLaunderingAndTerroristFinancing/01.pdf; *FATF Guidance, Correspondent Banking Services* (Oct. 2016), available at https://www.fatf-gafi.org/en/publications/Fatfrecommendations/Correspondent-banking-services.html; The Clearing House Association L.L.C., *Guiding Principles for Anti-Money Laundering Policies and Procedures in Correspondent Banking*, Press Release (Feb. 2016), available at https://www.theclearinghouse.org/advocacy/articles/2016/02/20160216-press-release-tch-aml-correspondent-banking-guiding-principles.

404 In October 2020, FinCEN proposed reducing the threshold for applicability of the rules from $3,000 to $250 for funds transfers and transmittals of funds that begin or end outside the U.S. and to clarify the meaning of "money" as used in the rules to ensure that the rules apply to domestic and cross-border transactions involving convertible virtual currency.

405 FinCEN has issued guidance about the application of the travel rule to various financial institutions in a multi-step funds transfer. See FinCEN, "Funds 'Travel' Regulations: Questions & Answers," FIN-2010-G004 (Nov. 9, 2010), available at https://www.fincen.gov/sites/default/files/shared/fin-2010-g004.pdf.

406 Basel Committee on Banking Supervision, Bank of International Settlements, *Due diligence and transparency regarding cover payment messages related to cross-border wire transfers* 1 (May 12, 2009), available at https://www.bis.org/publ/bcbs154.pdf.

407 In a y-model payment system, multiple funds transfers are used to move funds from an originator to a beneficiary. An underlying funds transfer instructs payment from an originator to a beneficiary, through their respective banks. The completion of that underlying funds transfer creates an interbank payment obligation between each sending bank and receiving bank in the funds transfer. The settlement of such interbank payment obligations is achieved through one or more interbank funds transfers (known as cover payments).

408 Federal Reserve Board, FDIC, OCC, OTS, & NCUA, *Transparency and Compliance for U.S. Banking Organizations Conducting Cross-Border Funds Transfers* (Dec. 18, 2009), available at https://www.federalreserve.gov/boarddocs/srletters/2009/sr0909a1.pdf.

# Mapping of Sanctions/AML/CFT Requirements to the RSN

All originators and beneficiaries would either be customers of the RSN Members (in the Cross-Network DvP Settlement Use Case, Cross-Network Correspondent Bank Settlement Use Case and Client-to-Client IG Bond DvP Settlement Use Case), and would have been subject to their respective customer identification and due diligence programs, or would be the RSN Member banks themselves (in the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case and Cross-Network Intraday Repo Settlement Use Case). In the Centrally Cleared Dealer-to-Dealer Treasury DvP Settlement Use Case and the Cross-Network Intraday Repo Settlement Use Case, the buyer and seller banks would conduct compliance checks, including sanctions and AML/CFT screenings, consistent with their current practice for dealer-to-dealer transactions, and in any event, prior to sending a response to the RSN FMI accepting a transaction. Similarly, in the Cross-Network DvP Settlement Use Case and Client-to-Client IG Bond DvP Settlement Use Case, both of which would involve RSN Member banks settling transactions on behalf of their customers, both banks would conduct compliance checks, including sanctions and AML/CFT screenings, consistent with their current practice, prior to sending a response to the RSN FMI. For the Multi-Asset Settlement Use Cases, where there will be an initial decision to execute a transaction prior to the initiation of messaging to settle the transaction, the time between these steps may vary. A requirement for an RSN Member to approve a transaction would be its determination that it has satisfied applicable sanctions and AML requirements; all RSN Members participating in a transaction would be required to have run relevant checks and other compliance processes prior to accepting the transaction (and prior to the RSN FMI confirming settlement finality). Depending on the time between the initiation of a transaction and the involvement of the RSN FMI for settlement purposes, as well as any other applicable reasons, an RSN Member could determine whether an additional sanctions or AML screening would be necessary, consistent with its own risk and compliance practices.

In the Cross-Network Correspondent Bank Settlement Use Case, the originator's bank would conduct compliance checks, including sanctions and AML/CFT screenings, before forwarding an instruction to the RSN FMI. The other RSN Members in the transaction chain would conduct compliance checks, including sanctions and AML/CFT screenings after the RSN FMI constructs a settlement path but before responding to such settlement path. The beneficiary's bank would not be an RSN Member and would not be in a position to run its own checks until after it receives notification of state change from the RSN. This would maintain some level of risk and non-parallel processing, but the risk would be lower because it would be the only party in the chain that would not be able to process these checks beforehand (and because it would already be a customer of its settlement agent RSN Member bank).

As noted above, if two RSN Members in a transaction flow were affiliates, each would still be required to conduct its own compliance checks, including sanctions and AML/CFT screenings.

### RSN Proposal Responses

As contemplated in the PoC, RSN Members could respond to a proposed transaction with an "accept" or "reject." If an RSN Member were to "reject" a proposal, we understand that the RSN would include a set of default responses that can be included with the rejection to provide information to other RSN Members and facilitate future transactions. These responses are beyond the scope of the PoC and subject to further consideration. A key, distinguishing feature of the RSN is that, with the exception of the compliance screens on behalf of the initiating customer that are conducted by its bank prior to initiating a payment order through the RSN FMI (or in the Cross-Network Correspondent Bank Settlement Use Case, the end beneficiary's bank), all compliance screenings occur in parallel, rather than in serial as in many other payment (or other) systems. This functionality would not permit any transactions to be settled through the RSN unless all parties to the transaction confirm it would not raise any sanctions or AML/CFT concerns.

# Analysis for Future Phases

### RSN FMI Requirements

The PoC did not address the specific characteristics of the RSN FMI, which has not been formed and would be determined at a later stage if the RSN is implemented. The legal and regulatory requirements of the RSN FMI would be based on a variety of factors that were not included in the PoC, including its organizational structure as well as its responsibilities. For example, whether the RSN FMI would maintain any records other than the RSN Ledger on behalf of the RSN or RSN Members would be determined by the Working Group in a later phase. As the role of the RSN FMI is developed, further analysis will be needed. In particular, if the RSN FMI were deemed to be a "financial institution" or organized as a banking entity, as discussed in Section 3, it would be subject to additional compliance requirements, including with respect to the BSA and sanctions.

### Recordkeeping

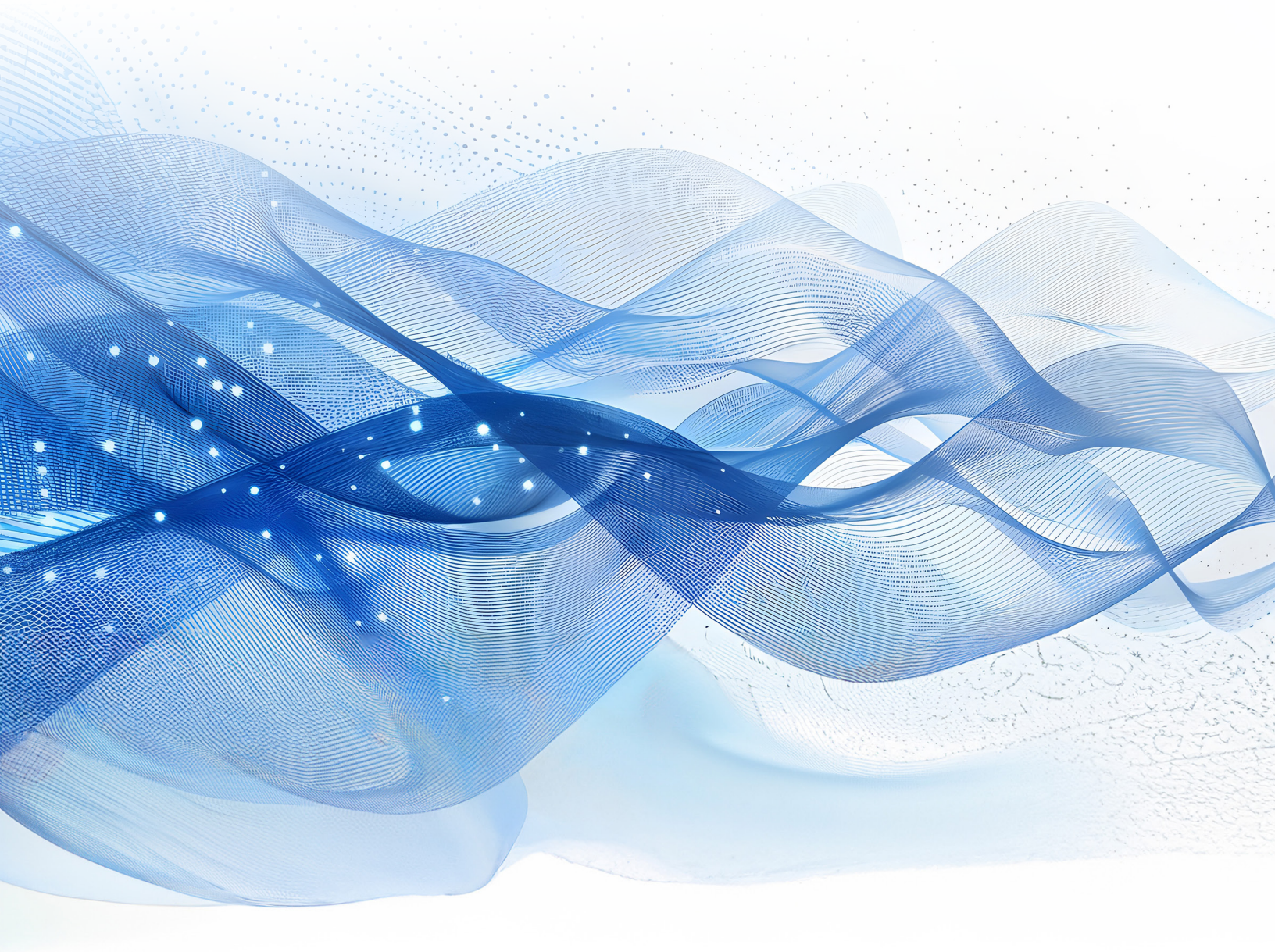
All RSN Members would remain subject to all applicable recordkeeping requirements associated with their U.S. sanctions and AML/CFT compliance programs. We understand that the scope of records that would be created and maintained by the RSN FMI and through the RSN, as opposed to deposit records maintained by the RSN Members themselves, remains subject to further consideration. Recordkeeping requirements would need to be considered with respect to any records to be maintained by the RSN FMI (rather than a bank's or broker-dealer's individual ledger that it updates based on the RSN Ledger).

# Conclusion

The RSN Members, as contemplated in the PoC, would be regulated financial institutions and would be required to comply with all of the then-existing regulatory requirements that are applicable to funds or securities transfers, albeit through a different system. Because there is no "one size fits all" approach to compliance, each RSN Member would be required to continually monitor transactions through the RSN and assess whether any adjustments to its compliance programs would be needed to account for any risks that may be specific to its use of the RSN. The new technology implemented in the RSN, and in particular, the parallel compliance screening process, may provide for efficiencies in the ways that the RSN Members can identify potential risks and address or communicate them in an earlier stage of a transaction. In addition, because of the novelty of the RSN, the RSN Members could consider discussing their proposed approach with FinCEN and/or OFAC in a later phase.

# Section 10

Conclusions



# Conclusions

Our legal conclusions are set forth above in the executive summary. To date, we have not identified any legal issues that would prevent the creation of the RSN, as contemplated in the PoC, under current rules and regulations. Due to the RSN's nascent state, many of the elements considered in the PoC would be subject to change if an operational RSN were to be developed. Such changes could affect the analysis of the relevant legal issues discussed in this Report. Furthermore, as noted in this Report, there are a number of topics that will require further analysis, research and engagement with applicable regulators before final conclusions can be reached. When or how these questions are addressed and the order in which they are prioritized or determined to be gating items to establishing an operational RSN will depend on the next steps taken by the Working Group and certain design structures that will need to be actualized beforehand.

# Key of terms