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SECURITIES AND EXCHANGE COMMISSION

17 CFR Parts 232, 240, 242, and 249

[Release No. 34-97309; File No. S7-02-22]

RIN 3235-AM45

Supplemental Information and Reopening of Comment Period for Amendments Regarding the Definition of "Exchange"

AGENCY: Securities and Exchange Commission.

ACTION: Proposed rule; reopening of comment period.

SUMMARY: The Securities and Exchange Commission ("Commission") is reopening the comment period for its proposal ("Proposed Rules") to amend the rule under the Securities Exchange Act of 1934 ("Exchange Act") that defines certain terms used in the statutory definition of "exchange." The reopening provides supplemental information and economic analysis regarding trading systems that trade crypto asset securities that would be newly included in the definition of "exchange" under the Proposed Rules. The Commission is requesting further information and public comment on certain aspects of the Proposed Rules as applicable to all securities and the compliance dates and other alternatives for the Proposed Rules. The Proposed Rules were set forth in Release No. 34-94062 ("Proposing Release"), and the related comment period, which was reopened in Release No. 34-94868 on May 9, 2022, ended on June 13, 2022. The reopening of this comment period is intended to allow interested persons further opportunity to analyze and comment on the Proposed Rules in light of the supplemental information provided herein ("Reopening Release").

DATES: The comment period for the proposed amendments published on March 18, 2022, at 87 FR 15496, which was initially reopened on May 12, 2022, at 87 FR 29059, is again reopened. Comments should be received on or before June 13, 2023.

ADDRESSES: Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's internet comment form (https://www.sec.gov/regulatory-actions/how-to-submit-comments); or
- Send an email to rule-comments@sec.gov. Please include File Number S7-02-22 on the subject line.

Paper Comments:

- Send paper comments to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to File Number S7-02-22. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method of submission. The Commission will post all comments on the Commission's website (https://www.sec.gov/rules/proposed.shtml). Comments are also available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Operating conditions may limit access to the Commission's Public Reference Room. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly.

Studies, memoranda, or other substantive items may be added by the Commission or staff to the comment file during this rulemaking. A notification of the inclusion in the comment file of any materials will be made available on the Commission's website. To ensure direct electronic receipt of such notifications, sign up through the "Stay Connected" option at www.sec.gov to receive notifications by email.

FOR FURTHER INFORMATION CONTACT: Tyler Raimo, Assistant Director, Matthew Cursio, David Garcia, Eugene Hsia, Megan Mitchell, Amir Katz, Special Counsels, and Joanne

Kim, Attorney Advisor, at (202) 551-5500, Office of Market Supervision, Division of Trading and Markets, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549.

SUPPLEMENTARY INFORMATION:

I. Background

A. Exchange Regulatory Framework

Exchange Act section 3(a)(1) states that the term "exchange" means any organization, association, or group of persons, whether incorporated or unincorporated, which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood, and includes the market place and the market facilities maintained by such exchange.[1]

Title 17 section 240.3b-16(a) ("Rule 3b-16(a)") defines certain terms in the definition of "exchange" under section 3(a)(1) of the Exchange Act to include any organization, association, or group of persons that: (1) brings together the orders for securities of multiple buyers and sellers; and (2) uses established, non-discretionary methods (whether by providing a trading facility or by setting rules) under which such orders interact with each other, and the buyers and sellers entering such orders agree to the terms of a trade.[2] Title 17 section 240.3b-16(b) ("Rule 3b-16(b)") explicitly excludes certain systems from the definition of "exchange."[3] Title 17 section 240.3b-16 ("Rule 3b-16") provides a functional test to assess whether a trading platform meets the definition of exchange and, if so, triggers exchange registration. Section 5 of the

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1 See 15 U.S.C. 78c(a)(1).

2 See 17 CFR 240.3b-16(a).

3 See Securities Exchange Act Release No. 40760 (Dec. 8, 1998), 63 FR 70844, 70852 (Dec. 22, 1998) ("Regulation ATS Adopting Release"). Specifically, Rule 3b-16(b) excludes from the definition of "exchange" systems that perform only traditional broker-dealer activities, including: systems that route orders to a national securities exchange, a market operated by a national securities association, or a broker-dealer for execution, or systems that allow persons to enter orders for execution against the bids and offers of a single dealer if certain additional conditions are met. 17 CFR 240.3b-16(b).

Exchange Act[4] requires an organization, association, or group of persons that meets the definition of "exchange" under section 3(a)(1) of the Exchange Act, unless otherwise exempt, to register with the Commission as a national securities exchange pursuant to section 6 of the Exchange Act.[5]

Title 17 section 240.3a1-1(a)(2) ("Rule 3a1-1(a)(2)") exempts from the Exchange Act section 3(a)(1) definition of "exchange" an organization, association, or group of persons that complies with Regulation ATS, which requires, among other things, meeting the definition of an alternative trading system ("ATS") and registering as a broker-dealer.[6] As a result of the exemption, an organization, association, or group of persons that meets the definition of an exchange and complies with Regulation ATS is not required by section 5 of the Exchange Act to register as a national securities exchange pursuant to section 6 of the Exchange Act, is not an SRO, and, therefore, is not required to comply with the regulatory requirements applicable to national securities exchanges and SROs.[7]

B. January 2022 Proposed Amendments to Exchange Act Rule 3b-16

As described more fully in the Proposing Release,[8] the Commission proposed to amend Exchange Act Rule 3b-16 to, among other things, replace "orders" with "trading interest" and

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4 15 U.S.C. 78e. Registered national securities exchanges are also self-regulatory organizations ("SROs"), and must comply with regulatory requirements applicable to both national securities exchanges and SROs.

5 15 U.S.C. 78f.

6 "Regulation ATS" consists of 17 CFR 242.300 through 242.304 (Rules 300 through 304 under the Exchange Act).

7 An ATS that fails to comply with the requirements of Regulation ATS would no longer qualify for the exemption provided under Rule 3a1-1(a)(2), and thus, risks operating as an unregistered exchange in violation of section 5 of the Exchange Act. See Securities Exchange Act Release No. 83663 (July 18, 2018), 83 FR 38768, 38772 n.36 (Aug. 7, 2018) ("NMS Stock ATS Adopting Release").

8 See Securities Exchange Act Release No. 94062 (Jan. 26, 2022), 87 FR 15496 (Mar. 18, 2022). The Proposed Rules also: (1) re-proposed amendments to Regulation ATS for ATSs that trade government securities as defined under section 3(a)(42) of the Exchange Act or repurchase and reverse repurchase agreements on government securities ("Government Securities ATSs"); (2) proposed amendments to Form ATS-N for NMS Stock ATSs and Government Securities ATSs; (3) proposed amendments to 17 CFR 242.301(b)(5) ("Rule 301(b)(5)") of Regulation ATS ("Fair Access Rule") for ATSs; (4) proposed to require electronic filing of and to modernize Form ATS and Form ATS-R; and (5) re-proposed amendments to regulations regarding systems compliance and integrity to apply to ATSs that meet certain volume thresholds in U.S. Treasury Securities or in a debt security issued or guaranteed by a U.S. executive agency, or government-sponsored enterprise.

define "trading interest";[9] remove the term "multiple" before "buyers and sellers";[10] add "communication protocols" as an example of an established, non-discretionary method that an organization, association, or group of persons can provide to bring together buyers and sellers of securities; simplify and align the rule text with the statutory definition of "exchange" under section 3(a)(1) of the Exchange Act; and add an exclusion under Exchange Act Rule 3b-16(b) for systems that allow an issuer to sell its securities to investors.

Specifically, the Commission proposed to amend Exchange Act Rule 3b-16(a) to include within the definition of "exchange" an organization, association, or group of persons that constitutes, maintains, or provides a market place or facilities for bringing together buyers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange if it is not subject to an exception under Rule 3b-16(b) and it: (1) brings together buyers and sellers of securities using trading interest; and (2) makes available established, non-discretionary methods (whether by providing a trading facility or communication protocols, or by setting rules) under which buyers and sellers can interact and agree to the terms of a trade. For purposes of this Reopening Release, trading systems that meet the criteria of Exchange Act Rule 3b-16(a), as proposed to be amended (i.e., offer the use of non-firm trading interest and provide non-discretionary protocols),[11] are referred to throughout the release as "New Rule 3b-16(a) Systems." New Rule 3b-16(a) Systems would be subject to the

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9 As proposed, "trading interest" (defined in proposed Rule 300(q) of Regulation ATS) would include "orders," as the term is defined under 17 CFR 240.3b-16(c) ("Rule 3b-16(c)"), or any non-firm indication of a willingness to buy or sell a security that identifies at least the security and either quantity, direction (buy or sell), or price. See Proposing Release at 15540.

10 The Commission proposed removing the word "multiple" from Exchange Act Rule 3b-16(a)(1) to mitigate confusion as to its application to non-firm trading interest, including request-for-quote ("RFQ") systems, and align the rule more closely with the statutory definition of "exchange," which does not contain the word "multiple" but includes the plural terms "purchasers and sellers." See id. at 15506. The Commission also stated in the Proposing Release that the use of plural terms in "buyers and sellers" in Rule 3b-16(a) and "purchasers and sellers" in the statutory definition of "exchange" makes sufficiently clear that an exchange need only have more than one buyer and more than one seller participating on the system to meet this prong. See id. at 15506 n.105.

11 Such systems were referred to as "Communication Protocol Systems" in the Proposing Release. See id. at 15497 n.5.

definition of "exchange" and be required to register as a national securities exchange or comply with the conditions to an exemption to such registration, such as Regulation ATS.

C. Purpose of the Reopening Release

In response to the Proposing Release, the Commission received many comments.[12] In particular, the Commission received requests for information about the application of the Proposed Rules to trading systems for crypto asset securities[13] and trading systems that use distributed ledger or blockchain technology (broadly referred to as "DLT"),[14] including systems commenters characterize as decentralized finance or "DeFi."[15] Commenters request information about whether and how such systems can comply with existing federal securities laws and the Proposed Rules.[16] Given these comments, the Commission is issuing this Reopening Release regarding the potential effects of the proposed amendments to Exchange Act Rule 3b-16 on trading systems for crypto asset securities and trading systems using DLT, including systems commenters characterize as various forms of "DeFi," and requesting further information and public comment on aspects of the Proposed Rules, more generally. This Reopening Release also supplements the economic analysis in the Proposing Release by providing additional analysis on the estimated impact of the Proposed Rules on trading systems for crypto asset securities and

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12 See infra sections II.A and II.B. Comment letters cited in this Reopening Release are comment letters received in response to the Proposing Release, which are available at https://www.sec.gov/comments/s7-02-22/s70222.htm.

13 See infra note 26.

14 The terms DLT and blockchain, a type of DLT, generally refer to databases that maintain information across a network of computers in a decentralized or distributed manner. Blockchain networks commonly use cryptographic protocols to ensure data integrity. See, e.g., World Bank Group, "Distributed Ledger Technology (DLT) and Blockchain," FinTech Note No. 1 (2017), available at https://openknowledge.worldbank.org/bitstream/handle/10986/29053/WP-PUBLIC-Distributed-LedgerTechnology-and-Blockchain-Fintech-Notes.pdf?sequence=1&isAllowed=y.

15 Commenters vary in their definitions of "DeFi," or what makes a product, service, arrangement or activity "decentralized." See generally The Board of the International Organization of Securities Commissions, IOSCO Decentralized Finance Report (Mar. 2022) ("IOSCO Decentralized Finance Report"), available at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD699.pdf. Trading systems for crypto assets that are colloquially referred to as "decentralized" typically combine more traditional technology (such as web-based systems that accept and display orders and servers that store orders) with distributed ledger technology (such as "smart contract" provisioned blockchains – self-executing code run on distributed ledgers that carry out "if/then" type computations). See id. at 1. See also infra note 44.

16 See, e.g., infra notes 25, 58, 80, 82-84, and 86-87.

those using DLT, which include various so-called "DeFi" trading systems, and requests further comment.

II. Exchange Activity Involving Crypto Asset Securities and DLT under the Proposed Rules

A. Crypto Asset Securities

Commenters reflecting a broad range of market participants shared feedback on the application of the Proposed Rules to all securities, including crypto assets that are securities. Some commenters agree with the Commission's view[17] that the Proposed Rules should apply to trading in any type of security, regardless of the specific technology used to issue and/or transfer the security.[18] Several commenters request that the Commission clarify whether the Proposed Rules apply to crypto asset securities.[19] Commenters point to the lack of any explicit references in the Proposing Release to systems that trade crypto asset securities, including so-called "DeFi" trading systems, with some suggesting that such systems would be outside the scope of the Proposed Rules.[20] One commenter states that the Proposed Rules should not apply to crypto asset securities.[21] Some commenters state their view that there is supposed regulatory

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17 See Proposing Release at 15503.

18 See, e.g., Letters from Marcia E. Asquith, Executive Vice President, Board and External Relations, FINRA, dated Apr. 19, 2022 ("FINRA Letter") at 4; Stephen W. Hall, Legal Director and Securities Specialist, and Scott Farnin, Legal Counsel, Better Markets, Inc., dated Apr. 18, 2022 ("Better Markets Letter") at 8; Tyler Gellasch, Executive Director, Healthy Markets Association, dated June 13, 2022 ("Healthy Markets Letter") at 6 n.21 (stating that the Proposed Rules should apply only to crypto assets that meet the definition of a security under the Exchange Act "to avoid unnecessarily creating regulatory inconsistencies and loopholes, and fulfill its investor protection mandate").

19 See, e.g., Letters from Jai Ramaswamy, Chief Legal Officer and Miles Jennings, General Counsel, a16zCrypto, A.H. Capital Management, LLC, dated Apr. 18, 2022 ("a16z Letter") at 3; Kristin Smith, Executive Director and Jake Chervinsky, Head of Policy, Blockchain Association, dated Apr. 18, 2022 ("Blockchain Association Letter II") at 7-8; Brett Kitt, Associate Vice President, Principal Associate General Counsel, Nasdaq, Inc., dated Apr. 18, 2022 ("Nasdaq Letter") at 5; Joanna Mallers, Secretary, FIA Principal Traders Group, dated Apr. 21, 2022 ("FIA PTG Letter") at 2; Sheila Warren, Chief Executive Officer, Crypto Council for Innovation, dated Apr. 18, 2022 ("Crypto Council Letter") at 2; Sasha Hodder, Hodder Law Firm, P.A., dated Feb. 25, 2022; Tim Lau, dated Apr. 4, 2022; Zachary Stinson, dated Apr. 18, 2022 ("Stinson Letter"); Karthik Mahalingam, dated Apr. 19, 2022.

20 See, e.g., Letters from Michelle Bond, Chief Executive Officer, Association for Digital Asset Markets, dated Apr. 18, 2022 ("ADAM Letter II") at 14; Gus Coldebella and Gregory Xethalis, dated Apr. 18, 2022 ("Coldebella and Xethalis Letter") at 1-2; Crypto Council Letter at 3; a16z Letter at 7.

21 See ADAM Letter II at 3, 9-12.

uncertainty as to which crypto assets are securities.[22] Some commenters state that as a result of such supposed uncertainty, it is unclear whether the Proposed Rules would apply to so-called "DeFi" protocols.[23] One commenter states that the Commission should defer action on any rulemaking impacting crypto assets until, among things, such supposed uncertainty is eliminated.[24] Some commenters state that the existing exchange regulatory framework is incompatible with systems that trade crypto asset securities using so-called "DeFi protocols."[25]

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22 See, e.g., a16z Letter at 3, 15-16 (stating that the Commission has not made clear which digital assets it believes are "securities"); Blockchain Association Letter II at 3, 9 (stating whether and when a given digital asset may qualify as a security under federal securities laws remains unclear); Letter from LeXpunK, dated Apr. 18, 2022 ("LeXpunK Letter") at 2 n.4 (stating that given the "lack of clarity with respect to the Commission's classification of digital assets and transactions involving digital assets," "there remains a looming uncertainty as to whether the same would be regarded as securities and securities transactions, respectively").

23 See, e.g., a16z Letter at 3, 15-16 (stating that given the uncertainty on which digital assets are "securities," some so-called "DeFi systems or protocols" that do not clearly meet the definition of "Communication Protocol Systems" or facilitate transactions in digital assets could endeavor to comply with the Proposed Rules while other "DeFi systems or protocols" might not, which raises the danger of inconsistency and could create unforeseen consequences in the market for digital assets); Blockchain Association Letter II at 3, 9 (stating that given the Commission's "expansive view of what may be deemed a security, there remains a risk that certain digital assets that users trade through Decentralized Protocols may (ex post) be deemed by the [Commission] to be securities"). See also Damien G. Scott, Deputy General Counsel, CoinList, dated Apr. 18, 2022 ("CoinList Letter") at 1-2 (explaining that crypto asset industry needs clarity about how the rules written for traditional paper securities secured and validated by intermediaries apply in practice to new digital technology).

24 See Letter from Jay H. Knight, Chair of the Federal Regulation of Securities Committee, Federal Regulation of Securities Committee of the Business Law Section of the American Bar Association, dated Apr. 18, 2022 ("ABA Letter") at 5-6 (suggesting the Commission defer the application of the Proposed Rules to digital asset intermediaries and their underlying technology pending completion of coordination among a broad range of government agencies to develop an appropriate approach to digital assets, pursuant to the Executive Order on Ensuring the Responsible Development of Digital Assets).

25 See, e.g., a16z Letter at 9 ("But even casting aside the practical challenges that DeFi protocols would confront in attempting to follow Regulation ATS, the Commission seems to overlook the fact that the purposes behind Regulation ATS would not be served by imposing its requirements on DeFi protocols."); Letter from William C. Hughes, Senior Counsel & Director of Global Regulatory Matters, ConsenSys Software Inc., dated Apr. 14, 2022 ("ConsenSys Letter") at 8 ("The '34 Act's requirements, tailored as they are to the centralized nature of exchanges, make no sense when applied to decentralized blockchain-based systems."); Letter from Delphi Digital, dated Apr. 18, 2022 ("Delphi Digital Letter") at 6 (stating that "systems lacking order-book logic, or which are sufficiently decentralized (i.e., lacking any particular owner/operator who could rationally be expected to comply with the SEC's intermediaries-based regulatory regime)" have been viewed by participants in the digital asset marketplace as outside the scope of securities exchange regulation). One commenter cites a paper stating that "[s]ome characteristics of DeFi may be incompatible with the existing regulatory framework, particularly given that the current framework is designed for a system that has financial intermediaries at its core." See Letter from Jake Chervinsky, Head of Policy, Blockchain Association and Miller Whitehouse-Levine, Policy Director, DeFi Education Fund, dated June 13, 2022 ("Blockchain Association/DeFi Education Fund Letter") at 4 (citing Org. for Econ. Cooperation and Dev., Why Decentralised Finance (DeFi) Matters and the Policy Implications (2022) at 12).

Crypto assets[26] generally use DLT as a method to record ownership and transfers.[27] Further, a crypto asset that is a security is not a separate type or category of security (e.g., NMS stock, corporate bond) for purposes of federal securities laws based solely on the use of DLT. The definition of "exchange" under section 3(a)(1) of the Exchange Act and existing Rule 3b-16 thereunder, and the requirement that an exchange register with the Commission pursuant to section 5 of the Exchange Act, apply to all securities, including crypto assets that are securities, which include investment contracts or any other type of security.[28] The Commission understands that currently certain trading systems for crypto assets, including so-called "DeFi" systems, operate like an exchange as defined under federal securities laws—that is, they bring together orders of multiple buyers and sellers using established, non-discretionary methods (by providing a trading facility, for example) under which such orders interact and the buyers and sellers entering such orders agree upon the terms of a trade.[29] Because it is unlikely that systems trading a large number of different crypto assets are not trading any crypto assets that are securities,[30]

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26 For purposes of this Reopening Release, the Commission does not distinguish between the terms "digital asset securities" and "crypto asset securities." The term "digital asset" refers to an asset that is issued and/or transferred using distributed ledger or blockchain technology, including, but not limited to, so-called "virtual currencies," "coins," and "tokens." See Securities Exchange Act Release No. 90788 (Dec. 23, 2020), 86 FR 11627, 11627 n.1 (Feb. 26, 2021) ("Commission Statement on Custody of Digital Asset Securities by Special Purpose Broker-Dealers"). A digital asset may or may not meet the definition of a "security" under the federal securities laws. See, e.g., Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Securities Exchange Act Release No. 81207 (July 25, 2017) ("DAO 21(a) Report"), available at https://www.sec.gov/litigation/investreport/34-81207.pdf. See also SEC v. W.J. Howey Co., 328 U.S. 293 (1946). To the extent digital assets rely on cryptographic protocols, these types of assets also are commonly referred to as "crypto assets."

27 See Investment Advisers Act Release No. 6240 (Feb. 15, 2023), 88 FR 14672, 14676 n.25 and accompanying text (Mar. 9, 2023); Securities Exchange Act Release No. 96496 (Dec. 14, 2022), 88 FR 5440, 5448 n.94 and accompanying text (Jan. 27, 2023).

28 Section 3(a)(1) of the Exchange Act and Rule 3b-16 thereunder do not apply to market places or facilities that do not trade securities. This would also remain unchanged under Exchange Act Rule 3b-16, as proposed to be amended.

29 In addition to its exchange obligations, depending on the facts and circumstances, an organization, association, or group of persons engaging in crypto asset securities business may also have legal and regulatory obligations under the federal securities laws for broker-dealer, custodial, clearing, or lending activities, among others. See U.S. Securities and Exchange Commission v. Beaxy Digital, Ltd., et al., No. 23-cv-1962 (N.D. Ill. Mar. 29, 2023) (Docket Entries 1, 4) (final judgment entered on consent enjoining crypto asset trading platform from operating an unregistered exchange, broker, and clearing agency).

30 See Fin. Stability Oversight Council, Report on Digital Asset Financial Stability Risks and Regulation 119 (2022) ("FSOC Report") at 97, available at https://home.treasury.gov/system/files/261/FSOC-Digital-Assets-Report-2022.pdf. Each system should analyze whether the crypto assets that it offers for trading

these systems likely meet the current criteria of Exchange Act Rule 3b-16(a) and are subject to the exchange regulatory framework.[31] Indeed, the President's Executive Order on Ensuring Responsible Development of Digital Assets acknowledged that "many activities involving digital assets are within the scope of existing domestic laws and regulations" and systems trading such assets "should, as appropriate, be subject to and in compliance with regulatory and supervisory standards that govern traditional market infrastructures and financial firms."[32] The proposed amendments to Exchange Act Rule 3b-16 do not change any existing obligation for these systems to register as a national securities exchange or comply with the conditions to an exemption to such registration, such as Regulation ATS.[33]

The Commission preliminarily believes that some amount of crypto asset securities trade on New Rule 3b-16(a) Systems, and that such systems may use DLT or be "DeFi" trading systems, as described by some commenters. Depending on facts and circumstances, systems that offer the use of non-firm trading interest and provide non-discretionary protocols to bring together buyers and sellers of crypto assets securities[34] can perform a market place function like that of an exchange—that is, they allow participants to discover prices, find liquidity, locate counterparties, and agree upon terms of a trade for securities. The exchange regulatory framework would provide market participants that use New Rule 3b-16(a) Systems for crypto asset securities with transparency, fair and orderly markets, and investor protections that apply to

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meet the definition of a security under the federal securities laws and prior Commission statements. See supra note 26. The Commission will continue to evaluate whether currently operating systems are acting consistent with federal securities laws and the rules thereunder.

31 See, e.g., DAO 21(a) Report at 17 ("The Platforms that traded DAO Tokens appear to have satisfied the criteria of Rule 3b-16(a) and do not appear to have been excluded from Rule 3b-16(b)."); In the Matter of Zachary Coburn, Securities Exchange Act Release No. 84553 (Nov. 8, 2018) (settled cease-and-desist order); In the Matter of Poloniex, LLC, Securities Exchange Act Release No. 92607 (Aug. 9, 2021) (settled cease-and-desist order).

32 See President's Executive Order on Ensuring Responsible Development of Digital Assets, dated Mar. 9, 2022, available at https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/.

33 17 CFR 242.300 through 242.304.

34 See Proposing Release at 15503.

today's registered exchanges or ATSs.[35] These benefits, in turn, promote capital formation, competition, and market efficiencies.[36] An organization, association, or group of persons that constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of crypto asset securities or performs with respect to crypto asset securities the functions commonly performed by a stock exchange as that term is generally understood under the criteria of Exchange Act Rule 3b-16(a), as proposed to be amended, would be an exchange under section 3(a)(1) of the Exchange Act and would be required to register as a national securities exchange or comply with the conditions of Regulation ATS.

Some commenters question the application of the proposed amendments to Exchange Act Rule 3b-16 to assets that may not be securities.[37] In addition, commenters indicate that many crypto asset trading systems offer pairs trading,[38] which typically involves two crypto assets (which may or may not be securities) that can be exchanged directly for each other using their relative price ("trading pair").[39] Trading pairs consist of both a base and quote asset; the base asset is the asset quoted in terms of the value of the other (i.e., quote) asset in the trading pair.[40]

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35 See Regulation ATS Adopting Release at 70847.

36 See 15 U.S.C. 78c(f).

37 See ADAM Letter II at 9 (stating that "it is premature of the SEC to include digital assets within the scope of the exchange regulatory framework until such time as there is a better understanding regarding the appropriate regulatory approach for such assets"); LeXpunK Letter at 2 n.4 (stating "where digital asset transactions do not involve securities, U.S. securities laws (and the instant proposed rulemaking) would be inapplicable" and that "in light of the lack of clarity with respect to the Commission's classification of digital assets and transactions involving digital assets, however, there remains a looming uncertainty as to whether the same would be regarded as securities and securities transactions, respectively"); a16z Letter at 15-16 (stating that the Proposing Release "does not mention 'digital asset securities' or 'investment contracts,' two of the terms the Commission uses to describe digital assets believed to be securities" and that the "omissions will further compound the uncertainty over whether the Proposal was meant to cover digital assets").

38 See LeXpunK Letter at 4 and 4 n.19; Delphi Digital Letter at 7 (stating that, in the context of systems that use "technology in DeFi," automated market makers ("AMMs") use "liquidity pools," which "represents assets in (and a market for) a single token pair" that are "'locked' within smart contracts").

39 See Fan Fang, Carmine Ventre, Michail Basios et al., Cryptocurrency Trading: A Comprehensive Survey, 8 FIN. INNOVATION 13 (2022), available at https://doi.org/10.1186/s40854-021-00321-6 (stating that in general, pairs trading involves two similar assets with a stable long-run relationship and slightly different spreads, and if the spread widens, investors short the high-priced crypto asset and buy the low-priced crypto asset).

40 See A Review of Cryptoasset Market Structure and Regulation in the United States, Feb. 2023, Program on International Financial Systems, available at https://www.pifsinternational.org/cryptoasset-market-structure-and-regulation-in-the-u-s/ ("PIFS Crypto Review").

Today, trading pairs can include a combination of securities and non-securities and frequently include so-called stablecoins, bitcoin, or ether as the base asset, quote asset, or both.[41] Users entering a trading pair on a system can exchange one crypto asset for another without exchanging the crypto asset for U.S. dollars (or other fiat currency) by simultaneously selling one asset while buying another on the system without exchanging either crypto asset for U.S. dollars first.

Section 3(a)(1) of the Exchange Act and Rule 3b-16 state that an exchange is any organization, association, or group of persons which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood.[42] An organization, association, or group of persons that meets the criteria of existing Exchange Act Rule 3b-16(a), and Rule 3b-16(a), as proposed to be amended, and makes available for trading a security and a non-security would meet the definition of "exchange" notwithstanding the fact that the entity traded non-securities. For its securities activities, the organization, association, or group of person must register as a national securities exchange or comply with the conditions of Regulation ATS.[43] Market places or facilities of, and the functions performed by, national securities exchanges and ATSs trade only securities quoted in and paid for in U.S. dollars.

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41 Crypto asset trading pairs offered by trading systems today also include other combinations (e.g., crypto asset (security or non-security) for another crypto asset (security or non-security)). While some of the major crypto asset trading systems available in the U.S. allow trading in U.S. dollars, others only allow trading between different crypto assets and not fiat currencies. The main base asset used on certain of these other systems is Tether (USDT). See Igor Makarov & Antoinette Schoar, Trading and Arbitrage in Cryptocurrency Markets, 135 J. FIN. ECON. 293 (2020). See also PIFS Crypto Review at 10-11 (stating that most global bitcoin trading is conducted with stablecoins rather than fiat currency).

42 See 15 U.S.C. 78c(a)(1).

43 Section 5 of the Exchange Act states that "[i]t shall be unlawful for any . . . exchange, directly or indirectly, to make use of the mails or any means or instrumentality of interstate commerce for the purpose of using any facility of an exchange within or subject to the jurisdiction of the United States to effect any transaction in a security, or to report any such transaction, unless such exchange (1) is registered as national securities exchange under [section 6 of the Exchange Act], or (2) is exempted from such registration . . . ." See 15 U.S.C. 78e.

The Commission is soliciting additional comment on Rule 3b-16, as proposed to be amended, and in particular responses to the following questions:

1. Should a New Rule 3b-16(a) System that trades crypto asset securities have the choice of registering as a national securities exchange or complying with the conditions of Regulation ATS? Why or why not?
2. Please describe any trading systems that currently offer the use of non-firm trading interest and provide non-discretionary protocols to bring together buyers and sellers of crypto asset securities, including a description of trading interest used, functionalities or protocols, requirements, limitations, types of market participants that use the systems, transaction volume, crypto asset securities offered for trading, and any other services offered by the system. Please provide any data, literature, or other information that you consider relevant to the Commission's analysis of New Rule 3b-16(a) Systems for crypto asset securities, including but not limited to, the types of systems, the amount of trading volume on such systems, the number of participants on such systems (as well as the participant types, such as institutional and retail), and the types of crypto asset securities they trade.
3. Do organizations, associations, or groups of persons that meet the criteria of New Rule 3b-16(a) Systems and trade crypto asset securities quote a security in an asset other than in U.S. dollars, such as a non-security crypto asset, and provide for the purchase or sale of that asset on the system or off-system? How do investors and trading systems use pairs trading involving non-security crypto assets and crypto asset securities? Are there significant differences between investors' use of pairs trading on centralized trading systems versus trading systems that commenters describe as "DeFi"? Please explain. For example, approximately how much trading volume for crypto asset securities is executed using trading pairs on various types of platforms discussed above? What percentage of trading in crypto asset securities, in

terms of volume executed, is in exchange for U.S. dollars? Please provide any data, literature, or other information that you consider relevant to the Commission's analysis.

B. Exchange Activity Using DLT, Including "DeFi" Systems

1. Technology Neutral and Functional Test of the "Exchange" Definition

The Commission received comments regarding whether the proposed amendments to Exchange Act Rule 3b-16 were intended to apply to what commenters characterize as "DeFi," and comments stating that the Proposed Rules could be interpreted to cover a broad range of technologies, including technologies used by so-called "DeFi" trading systems.[44] Some commenters state that so-called "DeFi" trading systems should be excluded from Exchange Act Rule 3b-16(a), as proposed to be amended.[45]

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[44] See, e.g., ConsenSys Letter at 8-9 (requesting that any final rule make clear that "blockchain-based systems" would not be exchanges); a16z Letter at 1, 2, 28 (stating, among other things, that the Proposed Rules could be interpreted as applying to a broad array of technologies, including "DeFi systems and protocols"); Crypto Council Letter at 2, 4 (stating, in part, that the Proposed Rules could apply to the "crypto and decentralized finance markets"); LeXpunK Letter at 3 (stating, in part, its belief that many "DeFi protocols and applications" would meet the definition of a "communication protocol system" under the Proposed Rules); Global Digital Asset & Cryptocurrency Association, dated Apr. 18, 2022 ("GDCA Letter II") at 11 (questioning whether "decentralized exchanges" would fall under the definition of "exchange"); Letter from Miller Whitehouse-Levine, Policy Director, DeFi Education Fund, dated Apr. 18, 2022 ("DeFi Education Fund Letter") at 3, 15 (stating, in part, that, without clarification, the Proposed Rules could be interpreted to regulate certain "DeFi protocols"); Letter from Dante Disparte, Chief Strategy Officer and Head of Global Policy, Circle Internet Financial, LLC, dated Apr. 18, 2022 ("Circle Letter") at 3; Letter from Michelle Bond, Chief Executive Officer, Association for Digital Asset Markets, dated Feb. 2, 2022 ("ADAM Letter I") at 1-2 (stating that the Proposed Rules could expand Commission authority over "spot digital asset markets and peer-to-peer decentralized networks" in ways not discussed in the Proposing Release); Letter from Kimberly Unger, The Security Traders Association of New York, dated Feb. 3, 2022 ("STANY Letter") at 2; Letter from Andrew Vollmer, Mercatus Center at George Mason University, dated Mar. 11, 2022 ("Vollmer Letter") at 2. Two commenters also state their belief that there is a lack of clarity as to the application of the Proposed Rules to "decentralized finance" or "DeFi protocols" that raises administrative due process concerns for industry participants. See ConsenSys Letter at 18; DeFi Education Fund Letter at 19. The foregoing commenters describe systems that use DLT with varying definitions and terminology (some of which the commenters do not define). As discussed above, there is no generally agreed upon definition of "DeFi" or decentralization. See IOSCO Decentralized Finance Report at 1, 9. Nonetheless, as discussed below, the Proposed Rules, like the existing exchange framework, regulate exchange activity, and not the technology underlying such activity.

[45] See, e.g., a16z Letter at 3 (stating that "DeFi protocols eliminate the need for a central operator that could implement regulatory requirements applicable to traditional securities exchanges or broker-dealers" and therefore the Commission should "clarify that the [p]roposal does not apply to DeFi systems by explicitly excluding them"); LeXpunK Letter at 2 (stating that the Proposed Rules would improperly expand the Commission's authority to regulate "technologists with neither the resources nor the reasonable expectation of being so regulated, who 'make available' peer-to-peer 'communication protocols' used in DeFi"); ConsenSys Letter at 8-12 (stating its belief that the term "communication protocols" does not cover "blockchain-based systems"); Delphi Digital Letter at 6 (stating that, unless "decentralized-in-actuality

When adopting Exchange Act Rule 3b-16, the Commission stated that the exchange framework is based on the functions performed by a trading system, not on its use of technology.[46] Notwithstanding how an entity may characterize itself or the technology it uses, a functional approach (taking into account the relevant facts and circumstances) will be applied when assessing whether the activities of a trading system meet the definition of an exchange. These principles continue to apply today under existing Rule 3b-16 and would equally apply under Rule 3b-16, as proposed to be amended.[47] Accordingly, an organization, association, or group of persons that uses any form or forms of technology (e.g., DLT, including technologies used by so-called "DeFi" trading systems, computers, networks, the Internet, cloud, telephones, algorithms, a physical trading floor) that constitutes, maintains, or provides a market place for bringing together purchasers and sellers of securities, including crypto asset securities, or for otherwise performing with respect to securities the functions commonly performed by a stock exchange under the current criteria of Exchange Act Rule 3b-16(a), or Exchange Act Rule

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software systems – including 'automatic market-making' smart contract systems" are carved out of the term "communication protocols," the Proposed Rules would impose "impossible compliance obligations on persons who may merely write open-source 'communications protocol' code or publish information about the contents of communications systems which they do not control"); Blockchain Association Letter II at 3 (stating that application of the Proposed Rules to "decentralized exchange protocols through which digital assets may be traded, [and] operate[d] autonomously and automatically through smart contracts and the participation of their users" would exceed the Commission's statutory authority under the Exchange Act); Letter from Spence Purnell, Director of Technology Policy, Reason Foundation, dated Feb. 23, 2022 at 2 (stating that the Proposed Rules should not apply to "technologies such as decentralized finance and smart-contracts" because they were not explicitly considered in the Proposing Release); Letter from Bryant Eisenbach, dated Feb. 2, 2022 ("Eisenbach Letter"). See also Letter from Rep. Patrick McHenry, Ranking Member, and Rep. Bill Huizenga, Ranking Member Subcommittee on Investor Protection, Entrepreneurship and Capital Markets, House Committee on Financial Services, dated Apr. 18, 2022 ("McHenry/Huizenga Letter") (expressing concern that the Proposed Rules "can be interpreted to expand the SEC's jurisdiction beyond its existing statutory authority to regulate market participants in the digital asset ecosystem, including in decentralized finance").

46 See Regulation ATS Adopting Release at 70902.

47 See, e.g., DAO 21(a) Report (stating that "any entity or person engaging in the activities of an exchange, such as bringing together the orders for securities of multiple buyers and sellers using established non-discretionary methods under which such orders interact with each other and buyers and sellers entering such orders agree upon the terms of the trade, must register as a national securities exchange or operate pursuant to an exemption from such registration," "the automation of certain functions through this technology, 'smart contracts,' or computer code, does not remove conduct from the purview of the U.S. federal securities laws," and that the requirements of the U.S. federal securities laws "apply to those who offer and sell securities in the United States, regardless whether the issuing entity is a traditional company or a decentralized autonomous organization, regardless whether those securities are purchased using U.S. dollars or virtual currencies, and regardless whether they are distributed in certificated form or through distributed ledger technology").

3b-16(a), as proposed to be amended, would be an exchange and would be required to register as a national securities exchange or comply with the conditions of Regulation ATS.

2. So-Called "DeFi" Systems and Exchange Act Rule 3b-16

Several commenters state their belief that the Proposed Rules could cause what they describe as "DeFi" trading systems to meet the criteria of Exchange Act Rule 3b-16(a), as proposed to be amended.[48] So-called "DeFi" trading systems can be used to allow investors to discover prices, find liquidity, locate counterparties, and agree upon terms of a trade for securities, including crypto asset securities, thereby performing market place activities or functions commonly performed by a stock exchange. Today, many systems, some of which are described as "DeFi" by commenters, bring together buyers and sellers of securities, including crypto asset securities, and could meet the existing criteria of Exchange Act Rule 3b-16(a). The Commission understands that so-called "DeFi" trading systems often rely on electronic messages that are exchanged between buyers and sellers so that they can agree upon the terms of a trade without negotiations.[49] If these electronic messages constitute a firm willingness to buy or sell a security, including a crypto asset security, the messages would meet the definition of orders

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48 See DeFi Education Fund Letter at 15; Circle Letter at 3; ADAM Letter I at 1-2; STANY Letter at 2; Vollmer Letter at 2; Crypto Council Letter at 2; LeXpunK Letter at 7-8.

49 For example, AMM is a mechanism designed to create liquidity for others seeking to effectuate trades. See President's Working Group on Financial Markets, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency, Report on Stablecoins (Nov. 2021), available at https://home.treasury.gov/system/files/136/StableCoinReport_Nov1_508.pdf. Liquidity pools of so-called "DeFi" trading systems rely on AMM protocols which typically use preset mathematical equations (e.g., x*y=k, where x and y represent the values of tokens in a liquidity pair and k is a constant) to ensure the ratio of assets in the liquidity pools remains balanced and determine prices based on trading volumes. See U.S. Department of the Treasury, Crypto-Assets: Implications for Consumers, Investors, and Businesses (Sept. 2022) ("Crypto-Assets Treasury Report"), available at https://home.treasury.gov/system/files/136/CryptoAsset_EO5.pdf. Some commenters argue that systems that use AMMs do not use trading interest as described in the Proposed Rules. See LeXpunK Letter at 12-13; Delphi Digital Letter at 9-10. One commenter states that AMM users do not interact with each other but with a pool of liquidity resting in a smart contract. See LeXpunK Letter at 12-13. This commenter states that forms of non-firm trading interest – conditional orders and indications of interest – discussed in the Proposing Release, "do not align with AMMs provision of automated liquidity through the smart contract-based deterministic mechanisms," where no party imposes such conditions or communicates such interest. See id. One commenter states that there are no "orders" on an AMM because, in contrast to a "centralized" platform which permits makers and takers to agree upon a price, an AMM sets the price. See Delphi Digital Letter at 9-10.

under existing Rule 3b-16(c).[50] And if established, non-discretionary method(s) under which orders of multiple buyers and sellers interact with each other are provided, such as through the provision of certain smart contract functionality, the activities would be covered under existing Rule 3b-16(a). Accordingly, depending on the facts and circumstances, activities performed today using so-called "DeFi" trading systems could meet the criteria of existing Rule 3b-16 and thus constitute exchange activity. The proposed amendments to Rule 3b-16(a) would not, in any way, change whether such activities constitute exchange activity under section 3(a)(1) and Rule 3b-16(a).

As discussed above, the Commission preliminarily believes that New Rule 3b-16(a) Systems, including some so-called "DeFi" systems, trade some amount of crypto asset securities, and would, under the proposed amendments to Exchange Act Rule 3b-16(a), be required to register as a national securities exchange or comply with the conditions of Regulation ATS.

3. Custodial Services is Generally Not Relevant to Exchange Analysis

Some commenters state that because so-called "DeFi" trading systems do not custody assets, they should not be subject to exchange regulation.[51] One commenter states that trading conducted using "DeFi" trading systems does not involve users depositing assets with a central authority.[52] Another commenter states that "custody" with reference to "DeFi" means self-custody, which the commenter states does not fit "the Commission's model, under which all

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50 See 17 CFR 240.3b-16(c).

51 See a16z Letter at 8-9; GDCA Letter II at 11; DeFi Education Fund Letter at 6. See also LeXpunK Letter at 4 n.18 (stating that no "'custody' or 'transfer' actually occurs" in the context of a "smart contract-based platform").

52 See a16z Letter at 8-9. The commenter cites a paper stating "one of the main advantages of decentralized exchanges over centralized exchanges is the ability for users to keep control of their private keys." See id. at 8 n.41 (citing Igor Makarov & Antoinette Schoar, Cryptocurrencies and Decentralized Finance (DeFi) 23 (Brookings Paper on Econ. Activity, Conference Draft, 2022)).

exchanges are centralized."[53] Neither existing Exchange Act Rule 3b-16 nor Rule 3b-16, as proposed to be amended, requires an organization, association, or group of persons to provide custodial services to be considered an exchange under section 3(a)(1) of the Exchange Act and Rule 3b-16 thereunder.[54] Thus, custodial services generally is not a relevant factor to the exchange analysis.

4. Group of Persons as the Exchange

Some commenters ask that the Commission explain which actor or group of actors would be responsible for compliance and how so-called "DeFi" trading systems should comply with exchange regulatory requirements.[55] Some commenters express concerns that the proposed amendments to Exchange Act Rule 3b-16(a) would inappropriately apply to systems that purport not to involve intermediaries.[56] One commenter states that providers of rule sets on how messages should be formed, stored, and relayed on a network are not like "intermediaries of the traditional financial system" because "all they are doing is publishing particular arrangements of

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53 See GDCA Letter II at 11. See also DeFi Education Fund Letter at 6 (stating "DeFi protocols" present "no financial risk for users from broker activity or custody"). One commenter also states that the Commission has provided no public guidance regarding how a digital asset communication protocol system could arrange for custody and settlement to the Commission's satisfaction, in order to operate as an exchange. See GDCA Letter II at 10. Further, some commenters question how exchange regulation will apply to trading activities that use "DeFi" and do not involve an intermediary for trading or to custody securities. See supra note 52 and infra note 56.

54 The Customer Protection Rule requires a broker-dealer to promptly obtain and thereafter maintain physical possession or control of all fully-paid and excess margin securities it carries for the account of customers. See 17 CFR 240.15c3-3(b). In 2020, the Commission issued a statement describing its position that, for a period of five years, special purpose broker-dealers operating under the circumstances set forth in the statement 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 crypto asset securities for purposes of 17 CFR 240.15c3-3(b)(1) ("Rule 15c3-3(b)(1)") under the Exchange Act. See Commission Statement on Custody of Digital Asset Securities by Special Purpose Broker-Dealers. To date, no person has been approved to act as a special purpose broker-dealer custodying crypto asset securities.

55 See Letter from Paul Grewal, Chief Legal Officer, Coinbase Global, Inc., dated Apr. 18, 2022 ("Coinbase Letter") at 7; a16z Letter at 3; Blockchain Association Letter II at 8.

56 See a16z Letter at 10; ConsenSys Letter at 8; DeFi Education Fund Letter at 3, 11; Blockchain Association Letter II at 3, 5; CoinList Letter at 2; Eisenbach Letter at 2. For example, one commenter states that what it calls "decentralized" systems allow anyone to participate rather than rely on gatekeepers. See ConsenSys Letter at 8.

0s and 1s."[57] In addition, some commenters state that "DeFi" trading systems may be unable to comply with exchange regulatory requirements because they lack a central operator.[58] Some commenters interpret Exchange Act Rule 3b-16(a), as proposed to be amended, to mean that each entity that performs any exchange function would need to register as a national securities exchange or comply with the conditions of Regulation ATS.[59] For example, some commenters state that, under the proposed amendments to Exchange Act Rule 3b-16(a), exchange regulation could extend to persons including open source developers who contribute code to the software repositories where software for so-called "DeFi" trading systems is first published, persons who republish and share this information, and persons who connect to the peer-to-peer networks on which "DeFi" activities takes place.[60] One commenter states that the group of persons involved in a "DeFi" trading system – including developers, AMMs, and miners – could all comprise essential components of the market infrastructure.[61] This commenter further states that the fact that these roles might be "decentralized" does not change that they would be considered a group of persons who constitutes, maintains, or provides facilities for bringing together purchasers and sellers of securities.[62]

The existence of smart contracts on a blockchain does not materialize in the absence of human activity or a machine (or code) controlled or deployed by humans. The Commission understands that, typically, including for so-called "DeFi" trading systems, a single organization

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57 See Letter from Coin Center, dated Apr. 14, 2022 ("Coin Center Letter") at 13. Another commenter states that developers of "DeFi protocols" would not qualify as a "group of persons" because they "merely make tools available for parties to communicate." See DeFi Education Fund Letter at 15.

58 See, e.g., a16z Letter at 3; Coin Center Letter at 12; CoinList Letter at 2; GDCA Letter II at 11; Blockchain Association/DeFi Education Fund Letter at 5.

59 See, e.g., Letter from Robert Toomey, Managing Director and Associate General Counsel, Securities Industry and Financial Markets Association, dated June 13, 2022 ("SIFMA Letter II") at 8.

60 See Coin Center Letter at 25. See also Delphi Digital Letter at 9 (stating that participants could "number in the hundreds or thousands and be distributed all over the world").

61 See Letter from James F. Tierney, Assistant Professor of Law, University of Nebraska College of Law, dated June 13, 2022 ("Tierney Letter") at 2 (stating that these participants in "blockchain and other DeFi applications" all "might play analogous roles to in-house counsel, market makers, and back-office clearance roles in a traditional exchange setup").

62 See id.

constitutes, maintains, or provides the market place or facilities for bringing together buyers and sellers of securities or otherwise performs with respect to securities the functions commonly performed by a stock exchange under section 3(a)(1) and Exchange Act Rule 3b-16 thereunder.[63]

While it is common today for a single organization to provide a market place or facilities to bring together buyers and sellers of securities and meet the definition of an exchange, an exchange can also exist where a market place or facilities are provided by a group of persons, rather than a single organization.[64] Under section 3(a)(1), and Exchange Act Rule 3b-16(a), the term exchange "means any organization, association, or group of persons, whether incorporated or unincorporated, which constitutes, maintains, or provides a market place or facilities for bringing together buyers and sellers of securities or perform with respect to securities the functions commonly performed by a stock exchange."[65] Thus, a group of persons, whether incorporated or unincorporated, can together constitute, maintain, or provide a market place or facilities or perform with respect to securities the functions commonly performed by a stock exchange. In determining which persons would be included in the group of persons that constitutes, maintains, or provides an exchange or performs with respect to securities the functions commonly performed by a stock exchange, important factors would generally include whether the persons act in concert in establishing, maintaining, or providing a market place or facilities for bringing together buyers and sellers of securities or in performing with respect to securities the functions commonly performed by a stock exchange, or exercise control, or share

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63 See IOSCO Decentralization Finance Report at 8 n.13 (stating that "claims about decentralization for many projects may not hold up to scrutiny of the technical reality of what can be changed in the system, who can be involved in the decisions, and who actually is involved").

64 The term "person" means a natural person, company, government, or political subdivision, agency, or instrumentality of a government. 15 U.S.C. 78c(a)(9).

65 In a recent decision, the United States Court of Appeals for the District of Columbia Circuit held that the term "group of persons" "certainly includes closely connected corporate affiliates" and noted that "[w]hether two or more persons are or may be acting in concert is likely the key consideration" in determining whether two or more entities may constitute a "group of persons" for purposes of the statute. Intercontinental Exch., Inc. v. SEC, 23 F.4th 1013, 1024 (D.C. Cir. 2022). In addition, the court stated that it was "not suggest[ing] the term 'group of persons' is synonymous with corporate affiliation" and that "one corporation that is affiliated with but not controlled by another may or may not, depending upon the circumstances, be considered a 'group of persons'" for the purposes of section 3(a)(1) of the Exchange Act. See id.

control, over aspects of such market place or facilities or the performance of functions commonly performed by a stock exchange. In particular, when a group of persons exercises control, or shares control, over the organizational, financial, or operational aspects of a market place or facilities for bringing together buyers and sellers of securities, they are a group of persons that can be deemed to constitute, maintain, or provide the market place or facilities.[66]

Whether persons act in concert or exercise control, or share control, requires an analysis of the activities of each person and the totality of facts and circumstances. In assessing whether a person would be acting in concert with a group of persons, one factor to consider, depending on other facts and circumstances, would be the extent to which a person acts with an agreement (formal or informal) to constitute, maintain, or provide a market place or facilities for bringing together buyers and sellers of securities or to perform with respect to securities a function commonly performed by a stock exchange. For example, if one entity agrees with another entity to combine aspects of each other's market places or facilities (e.g., order books, display functionalities, or matching engines) to bring together buyers and sellers of securities, both entities could be considered part of the group and thus an exchange.

Control could occur through several means, including, among other things, ownership interest, corporate organizational structure and management, significant financial interest, or the ability to determine or modify participant access, securities traded, operations or trading policies,

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[66] In the Proposing Release, the Commission explained that, depending on the activities of the persons involved with the market place or facilities, a group of persons, who may each perform a function of the market place that meets the criteria of Exchange Act Rule 3b-16, can together provide, constitute, or maintain a market place or facilities for bringing together buyers and sellers of securities and together meet the definition of exchange. See Proposing Release at 15506 n.109. See also Regulation ATS Adopting Release at 70891 (". . . any subsidiary or affiliate of a registered exchange could not integrate, or otherwise link the alternative trading system with the exchange, including using the premises or property of such exchange for effecting or reporting a transaction, without being considered a 'facility of the exchange.'"). In determining whether affiliated persons would be a "group of persons" for the purposes of section 3(a)(1) of the Exchange Act and Rule 3b-16 thereunder, an important factor is whether the operations and management of the affiliated persons are separate. For example, an affiliated entity of an exchange might not be considered a group of persons with that exchange if there is independent governance, management, and oversight between affiliated entities; prevention of strategic coordination or information sharing between the affiliated entities by way of information barriers and other procedures; separation of functions relating to technology, operations and infrastructure, sales and marketing, branding, and staffing; and avoidance of business links, such as routing, fees, billing, and membership.

or non-discretionary methods of the market place or facilities. For example, a person that can determine or modify, either individually or with others, the entering, storing, matching, or display of trading interest (e.g., a matching engine, a smart contract) would be exercising control over the operations of the market place or facilities. In addition, a person that can determine or modify, or grant or limit access to, for example, either individually or with others, the market or other data about the securities and securities transactions available on the market place or facility, order types, order interaction procedures (e.g., counterparty selection, segmentation), the priority or price at which trading interest will execute, or protocols for negotiation, would have the ability to determine trading policies or methods and exercise control over the market place or facilities.

The ability to exercise control over a market place or facilities is not limited solely to the operational control.[67] Also, a person that, for example, either individually or with others, can determine or modify, with respect to the market place or facilities, the securities made available for trading or the access requirements and conditions for participation would be exercising control. In addition, a person could exercise control by determining who can, and in what amount, share in profits or revenues derived from the market place or facilities, or by having the ability to enter into legal or financial agreements or arrangements on behalf of or in the name of the market place or facilities. Depending on the facts and circumstances, significant holders of governance or other tokens, for example, could also be considered part of the group of persons and thus an exchange if they can control certain aspects of it.[68]

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67 See, e.g., Regulation ATS Adopting Release at 78052 (stating that a system that standardizes the material terms of instruments traded on the system will be considered to use established, non-discretionary methods).

68 This analysis would depend on facts and circumstances. Whether a token holder can exercise control over a market place or facilities and be considered part of a "group of persons" would depend, for example, on the number of total token holders, or, if a holder's votes are weighted proportionally to the size of their holdings of tokens, the size of their holdings, as well as what parameters the governance tokens are set to control (e.g., fundamental operational decisions, strategic direction of the company, budgetary decisions, and ability to change the underlying code), among other things.

Generally, an entity that engages a service provider or vendor to operate a market place or facilities for bringing together buyers and sellers of securities directs, manages, and oversees the activities of the service provider or vendor. In this instance, the entity, not the service provider or vendor, controls the market place or facilities, and the entity is responsible for compliance with federal securities laws. In certain circumstances, however, a service provider or vendor could exercise control, or share control, over aspects of the market place or facilities along with the entity that procured the service provider or vendor. In that case, the service provider or vendor would be considered a person within a group of persons that constitutes, maintains, or provides the market place or facilities for bringing together buyers and sellers of securities.[69]

The group of persons that constitutes, maintains, or provides a market place or facilities for bringing together buyers and sellers of securities or performs with respect to securities the functions commonly performed by a stock exchange, and is thus an exchange, would collectively have the responsibility for compliance with federal securities laws. A group of persons must consider how they will comply with the Exchange Act registration requirements given their activities, which can include, but are not limited to, designating a member of the group,[70] to register the group or forming an organization to register as an exchange or, to operate as an ATS, registering as a broker-dealer and becoming a member of Financial Industry Regulatory

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69 See Proposing Release at 15548. This would not encompass purely administrative items, such as human resources support, or basic overhead items, such as phone services, electricity, and other utilities. In the Proposing Release, the Commission recognized that an ATS may engage an entity other than the broker-dealer operator to perform an operation or function of the ATS or a subscriber may be directed to use an entity to access a service of the ATS, such as order entry, disseminating market data, or display, for example. See Proposing Release at 15548. In such instances, the ATS must ensure that the entity performing the ATS function complies with Regulation ATS with respect to the ATS activities performed. See id.

70 The group of persons would be collectively responsible for ensuring that the designated member of the group fulfills its regulatory responsibilities.

Authority ("FINRA") to ensure compliance with the requirements of the Exchange Act, Commission rules, and FINRA rules.[71]

5. Group of Persons and So-Called "DeFi" Systems

One commenter states users of what it characterizes as "DeFi" protocols should not be considered part of a group of persons as they act independently of each other.[72] The commenter states that developers and users of "DeFi" protocols would not qualify as a "group of persons" because the developers have no ongoing relationship with either market participants or other financial providers and merely make tools available for parties to communicate, and users are acting independently of each other.[73] Another commenter describes that the "DeFi protocols" deploying AMM functionality rely on many distinct groups or participants, which may not be "affiliated or extrinsically coordinated" with one another.[74]

Trading on so-called "DeFi" systems can involve multiple actors. These actors can include, for example, the provider(s) of the DeFi application or user interface, developers of AMMs or other DLT code, decentralized autonomous organizations ("DAO"), validators or

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71 An ATS that complies with Regulation ATS and registers as a broker-dealer would be required to, among other things, comply with the anti-money laundering and countering the financing of terrorism (AML/CFT) obligations under the Bank Secrecy Act. 31 CFR 1023.210; 31 CFR 1023.320. The Bank Secrecy Act is codified at 31 U.S.C. 5311-5314; 5316-5332 and 12 U.S.C. 1829b, 1951-1959. Additionally, sections 5(a) and 5(c) of the Securities Act of 1933 ("Securities Act") generally prohibit any person, including broker-dealers, from selling a security unless a registration statement is in effect or has been filed with the Commission as to the offer and sale of such security. See 15 U.S.C. 77e(a) and (c). A New Rule 3b-16(a) System that operates as an ATS, which is a registered broker-dealer, could be subject to liability under section 5 of the Securities Act for facilitating the sale of a security by its customer on the ATS if the sale of such security is not registered or an exemption from the registration provisions does not apply. Section 4(a)(4) of the Securities Act provides an exemption for "brokers' transactions, executed upon customers' orders on any exchange or in the over-the-counter market but not the solicitation of such orders." See 15 U.S.C. 77d(a)(4). To rely on this exemption, a broker-dealer is required to conduct a "reasonable inquiry" into the facts surrounding a proposed unregistered sale of securities before selling the securities to form reasonable grounds for believing that a selling customer's part of the transaction is exempt from section 5 of the Securities Act. The Commission has stated that broker-dealers "have a responsibility to be aware of the requirements necessary to establish an exemption from the registration requirements of the Securities Act and should be reasonably certain such an exemption is available." In the Matter of World Trade Financial Corp., Securities Exchange Act Release No. 66114, 13 (Jan. 6, 2012) (quoting Stone Summers & Co., Securities Exchange Act Release No. 9839, 3 (Nov. 3, 1972)).

72 See DeFi Education Fund Letter at 15.

73 See id.

74 See Delphi Digital Letter at 9 (describing that "[t]hey do not co-own assets or operate a single enterprise for profit, do not know each other's identities, and have diverse (and often competing) motivations").

miners,[75] and issuers or holders of governance or other tokens. Often, a single organization constitutes, maintains, or provides a DLT-based market place or facilities for bringing together buyers and sellers of securities or performs with respect to securities the functions commonly performed by a stock exchange; however, a group of persons can likewise do so. As indicated above, one possible avenue for determining which persons comprise a group of persons can include whether such persons act in concert to establish, provide, or maintain a market place or facilities for securities or to perform with respect to securities the functions commonly performed by a stock exchange, or exercise control, or share control, over aspects of the market place or facilities or the performance of functions commonly performed by a stock exchange.[76] These actors can form a group of persons if they act in concert to perform, or exercise control or share control over, different functions of a market place or facilities for bringing together buyers and sellers of securities that, taken together, satisfy the elements of existing Exchange Act Rule 3b-16(a) or Rule 3b-16(a), as proposed to be amended.

As discussed above, in assessing whether a person would be acting in concert with a group of persons, one factor to consider, depending on other facts and circumstances, would be the extent to which a person acts with an agreement (formal or informal) to perform a function of a market place or facilities for bringing together buyers and sellers of securities.[77] A software developer who, acting independently and separate from an organization, publishes or republishes code without any agreement (formal or informal) with any person for that code to be used for a function of a market place or facilities for bringing together buyers and sellers of securities may be less likely to be acting in concert to provide a market place or facilities for bringing together

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75 Validators and miners verify transactions on the underlying blockchain and the function they perform is not only with respect to a particular trading system. Validators and miners use a consensus mechanism (e.g., proof-of-stake or proof-of-work) to verify and add transactions to a distributed ledger in exchange for crypto assets. See Crypto-Assets Treasury Report at 11-12.

76 See supra note 66.

77 See supra section II.B.4.

buyers and sellers.[78] This could be the case even if the software developer's code is subsequently adopted and implemented into a market place or facilities for securities by an unrelated person. Whether the activities of actors amount to a group of persons requires an analysis of the totality of facts and circumstances and the activities of each actor. If the activities of any combination of actors constitute, maintain, or provide, together, a market place or facilities for bringing together buyers and sellers for securities or perform with respect to securities a function commonly performed by a stock exchange, they could today be considered a group of persons and thus an exchange under section 3(a)(1) of the Exchange Act and Rule 3b-16 thereunder and therefore be required to register as an exchange under section 5 of the Exchange Act.[79]

One commenter states that attributing the function of constituting, maintaining, or providing an exchange to persons who initially created or deployed the system's code may not be practicable or advance the Commission's policy objectives because according to the commenter, the system, once deployed, typically cannot be significantly altered or controlled by any such persons.[80] A smart contract deployed to, and run on, a blockchain is typically accompanied by

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78 See, e.g., LeXpunK Letter at 15 (requesting that the Commission clarify that persons who "write and publish smart contract code as a hobby or business, whether to an open-source repository otherwise, and may not otherwise be subject to the jurisdiction of the U.S." are not intended to be captured by the Proposed Rules). If a software developer receives compensation for publishing, independently from an organization, code for a trading facility to match orders or a protocol for buyers and sellers to negotiate a trade, the software developer could be acting in concert with a group of persons to provide a market place or facilities for bringing together buyers and sellers.

79 See, e.g., Regulation ATS Adopting Release at 70852 ("[I]f an organization arranges for separate entities to provide different pieces of a trading system, which together meet the definition contained in paragraph (a) of Rule 3b-16, the organization responsible for arranging the collective efforts will be deemed to have established a trading facility."). See also Proposing Release at 15506 (stating the proposed change to use the phrase "makes available" is intended to make clear that, in the event that a party other than the organization, association, or group of persons performs a function of the exchange, the function performed by that party would still be captured for purposes of determining the scope of the exchange under Exchange Act Rule 3b-16). The Proposing Release also stated that, "[d]epending on the activities of the persons involved with the market place, a group of persons, who may each perform a part of the 3b-16 system, can together provide, constitute, or maintain a market place or facilities for bringing together purchasers and sellers of securities and together meet the definition of exchange. In such a case, the group of persons would have the regulatory responsibility for the exchange." See id. at 15506 n.109. See also infra notes 101-103 and accompanying text.

80 See Coinbase Letter at 6. Likewise, some commenters state that software developers cannot modify or control the code they have developed after it is launched. See Delphi Digital Letter at 8-9; Blockchain

other functionality to bring together buyers and sellers of securities (e.g., a user interface or website), and these functionalities can be provided and maintained by more than one party. If, for example, an organization deploys a smart contract that the organization cannot significantly alter or control but constitutes a market place for securities under existing Exchange Act Rule 3b-16 or Rule 3b-16, as proposed to be amended, then that organization would be an exchange and would be responsible for compliance with federal securities laws for that market place.[81] Given that such a market place could be publicly available to bring together buyers and sellers of securities, requiring the organization to be responsible in this case would advance the Commission's policy objectives by ensuring the exchange complies with federal securities laws and regulations, including, among other things, the oversight, investor protection, and fair and orderly market principles applicable to registered exchanges and ATSs.

6. Feasibility of Compliance with Exchange Regulatory Requirements

Some commenters state that so-called "DeFi" trading systems may have difficulty complying with certain exchange regulatory requirements.[82] For example, one commenter states it is unclear that any party would have the necessary information to comply with Regulation ATS.[83] In addition, some commenters question how DeFi trading systems would comply with broker-dealer requirements.[84]

The investor protection, fair and orderly markets, transparency, and oversight benefits of the federal securities laws are just as relevant to a system that uses DLT and meets the existing

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Association/DeFi Education Fund Letter at 5; DeFi Education Fund Letter at 11; Stinson Letter; Letter from Roman Scher, dated Apr. 18, 2022.

81 See also supra 78 and accompanying text (discussing "group of persons" involving a software developer acting independently and separate from an organization).

82 See, e.g., a16z Letter at 3; CoinList Letter at 2; GDCA Letter II at 8, 10.

83 See a16z Letter at 15 (stating that there is no central operator of a DeFi exchange that could complete Form ATS or comply with periodic reporting requirements and that those who make available AMMs cannot identify, track the orders of, or report to the Commission information about users).

84 See, e.g., GDCA Letter II at 8; Blockchain Association Letter II at 8; Letter from Lilya Tessler, Founder and Co-Chair, Digital Asset Regulatory & Legal Alliance, Kristin Boggiano, Founder and Co-Chair, Digital Asset Regulatory & Legal Alliance, Lee Schneider, Co-Founder, Global Blockchain Convergence, Cathy Yoon, Co-Founder, Global Blockchain Convergence, Renata Szkoda, Chairwoman, Global Digital Asset & Cryptocurrency Association, dated Apr. 14, 2022 ("DARLA, GBC, and Global DCA Letter") at 9.

criteria of Exchange Act Rule 3b-16 and Rule 3b-16, as proposed to be amended, as to any other system that meets the criteria under the exchange definition. From the Commission's experience, systems that currently are registered as national securities exchanges or comply with the conditions of Regulation ATS differ with respect to structure, participants, and established, non-discretionary methods and apply many assorted technologies to bring together buyers and sellers of various types of securities. The federal securities laws apply equally to systems that trade securities, use DLT, and meet the criteria of Rule 3b-16 as to any other exchange. The federal securities laws are flexible and the use of DLT, or any other technology, does not make compliance incompatible with the federal securities laws.[85]

One commenter states that "many Communication Protocol Systems are neither 'brokers' nor 'dealers' as defined by the Exchange Act because they do not effect securities transactions," which the commenter equates to "order execution," and "do not engage in the business of buying and selling securities."[86] The commenter states accordingly that the option to qualify as an ATS is not available for Communication Protocol Systems under current law, as only a registered broker-dealer may qualify as an ATS.[87]

Regulation ATS establishes a regulatory framework for ATSs. An ATS meets the definition of "exchange" under existing Exchange Act Rule 3b-16(a) and Exchange Act Rule 3b-16(a), as proposed to be amended, but is not required to register as a national securities exchange if the ATS complies with the conditions of Regulation ATS, which include registering as a broker-dealer. Section 3(a)(4)(A) of the Exchange Act defines "broker" as "any person engaged

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85 See DAO 21(a) Report (stating that "the automation of certain functions through [distributed ledger or blockchain] technology 'smart contracts,' or computer code, does not remove conduct from the purview of the U.S. federal securities laws" and that the requirements of the U.S. federal securities laws "apply to those who offer and sell securities in the United States, regardless whether the issuing entity is a traditional company or a decentralized autonomous organization, regardless whether those securities are purchased using U.S. dollars or virtual currencies and regardless whether they are distributed in certificated form or through distributed ledger technology").

86 See GDCA Letter II at 11-13.

87 See id.

in the business of effecting transactions in securities for the accounts of others."[88] The question of whether a person is a broker within the meaning of section 3(a)(4) turns on the facts and circumstances of the matter. Under section 3(a)(4)(A), the terms "engaged in the business" and "effecting transactions" are not defined by statute; however, effecting transactions in securities includes more than just executing trades or forwarding securities orders to a broker-dealer for execution.[89] In particular, the Commission stated that effecting securities transactions can include participating in the transactions through routing or matching orders, or facilitating the execution of a securities transaction.[90] In addition, courts have stated that a person may be found to be acting as a "broker" if the person participates in securities transactions "at key points in the chain of distribution."[91] Accordingly, the Commission believes that a New Rule 3b-16(a) System that seeks to operate as an ATS could register as a broker-dealer.

Given that the Proposing Release applies to New Rule 3b-16(a) Systems that use DLT, the Commission seeks responses to the following questions:

4. Which, if any, activities performed on so-called "DeFi" trading systems meet the criteria of Rule 3b-16(a), as proposed to be amended? For example, does the use of

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88 15 U.S.C. 78c(a)(4)(A). Section 3(a)(5)(A) defines "dealer" as any person engaged in the business of buying and selling securities, with certain exceptions, for such person's own account through a broker or otherwise. 15 U.S.C. 78c(a)(5)(A).

89 See Securities Exchange Act Release No. 44291 (May 11, 2001), 66 FR 27760, 27772-73 (May 18, 2001) (stating that effecting securities transactions can include participating in the transactions through (1) identifying potential purchasers of securities; (2) screening potential participants in a transaction for creditworthiness; (3) soliciting securities transactions; (4) routing or matching orders, or facilitating the execution of a securities transaction; (5) handling customer funds and securities; and (6) preparing and sending transaction confirmations (other than on behalf of a broker-dealer that executes the trades). Further, the Commission stated in the Regulation ATS Adopting Release that a trading system that falls within the Commission's interpretation of "exchange" in Rule 3b-16 will still be considered an "exchange" even if it matches two trades and routes them to another system or exchange for execution and that whether or not the actual execution of the order takes place on the system is not a determining factor of whether the system falls under Exchange Act Rule 3b-16. See Regulation ATS Adopting Release at 70852.

90 See Securities Exchange Act Release No. 44291 (May 11, 2001), 66 FR 27760, 27772-73 (May 18, 2001).

91 See Mass. Fin. Serv., Inc. v. Sec. Inv. Prot. Corp., 411 F. Supp. 411, 415 (D. Mass. 1976), aff'd 545 F.2d 754 (1st Cir. 1976). See also SEC v. Nat'l Exec. Planners, Ltd., 503 F. Supp. 1066, 1073 (M.D.N.C. 1980). Courts have also stated that in determining whether a person has acted as a broker, several factors are considered, including "whether the person: (1) actively solicited investors; (2) advised investors as to the merits of an investment; (3) acted with a 'certain regularity of participation in securities transactions;' and (4) received commissions or transaction-based remuneration." See, e.g., SEC v. U.S. Pension Trust Corp., 2010 WL 3894082, *20-21 (S.D. Fla. 2010).

AMMs alone bring together multiple buyers and sellers of securities through the use of non-firm trading interest? Please explain. Please identify any relevant data, literature, or other information that could assist the Commission in analyzing this issue.

5. Please give examples of New Rule 3b-16(a) Systems for crypto asset securities that use DLT or are so-called "DeFi" systems. Approximately how many such systems exist? Please identify the types of non-firm trading interest used and how participants use non-firm trading interest on such systems. Please explain what these systems trade (crypto asset securities or crypto assets) and the type of participants (e.g., retail or institutional). How do participants on a New Rule 3b-16(a) System for crypto asset securities that use "DeFi" systems, as characterized by commenters, negotiate trades for crypto asset securities? Please identify any relevant data, literature, or other information that could assist the Commission in analyzing these issues.
6. Would an organization, association, or group of persons that is a New Rule 3b-16(a) System and uses DLT to trade crypto asset securities likely elect to register as a national securities exchange or comply with the conditions of Regulation ATS? Please explain.
7. What are common characteristics of New Rule 3b-16(a) Systems for crypto asset securities that use DLT? Further, what are common characteristics of New Rule 3b-16(a) Systems for crypto asset securities described as "DeFi" trading systems? Are there any characteristics that heighten the need for investor protection and market integrity under the exchange regulatory framework?
8. What are the various governance structures (e.g., the role of governance token issuers or holders or of DAOs) of trading systems that use DLT and how can such structures administer regulatory programs or respond to regulatory oversight regarding activities on the system? What activities do governance token issuers or holders or DAOs

undertake regarding the governance and operation of trading systems that use DLT? Is there any concentration in voting and if so, how does that arise? Are voting rights of governance tokens or DAOs capable of being assigned or delegated and, if so, how is that done? How are changes to trading systems that use DLT effected and how are changes proposed to holders of voting rights under governance tokens or DAOs? Under what circumstances should governance or other token issuers or holders or DAOs be responsible for an exchange's regulatory compliance?

9. As noted in the above requests for comment in this section, the Commission seeks additional data and other information about the use of DLT as it relates to New Rule 3b-16(a) Systems. Please provide any such data, literature, or other information about the topics noted above or any other issue that would be relevant to the Commission's analysis of the Proposed Rules.

III. Proposed Amendments to Exchange Act Rule 3b-16 Generally

A. Performs Functions Commonly Performed by a Stock Exchange

Some commenters state that the Proposing Release did not demonstrate that systems that offer the use of non-firm trading interest and provide non-discretionary protocols "perform[] with respect to securities the functions commonly performed by a stock exchange as that term is generally understood," and assert that such a finding is required under the statutory definition of "exchange" under section 3(a)(1) of the Exchange Act.[92] In addition, some commenters state that systems that offer the use of non-firm trading interest and provide non-discretionary

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92 See, e.g., ConsenSys Letter at 14-15; DeFi Education Letter at 13; Coinbase Letter at 3 n.9. One of the commenters also states that in the Regulation ATS Adopting Release, the Commission assumed that to meet the statutory definition, the system must be "generally understood" to be performing stock exchange functions and "anchored" that rulemaking explicitly within the statutory definition. See Coinbase Letter at 3 n.10. In addition, a commenter opines that "[m]erely indicating a possible interest in buying or selling a security without mentioning the quantity or pricing terms that would otherwise characterize an order would allow the Commission to deem a platform an exchange despite it not 'performing with respect to securities the functions commonly performed by a stock exchange.'" Blockchain Association Letter II at 4.

protocols to bring together buyers and sellers of securities do not perform functions commonly performed by a stock exchange, as that term is generally understood.[93]

The statutory definition of "exchange" is written in the disjunctive: "a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood" (emphasis added).[94] Thus, if an organization, association, or group of persons constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities, it would be an "exchange"; it need not be demonstrated that the organization, association, or group of persons also performs functions commonly performed by a stock exchange as that term is generally understood. As discussed in the Proposing Release, systems today that offer the use of non-firm trading interest and provide non-discretionary protocols can constitute, maintain, or provide a market place or facilities for bringing together buyers and sellers of securities and meet the criteria of Exchange Act 3b-16 as proposed to be amended.[95]

B. Makes Available Non-Discretionary Methods

In the Proposing Release, the Commission proposed to amend Exchange Act Rule 3b-16(a) to provide that an organization, association, or group of persons would be considered to constitute, maintain, or provide an exchange if it: brings together buyers and sellers of securities using trading interest; and makes available established, non-discretionary methods (whether by

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93 See, e.g., Coinbase Letter at 3; ConsenSys Letter at 13-14; DARLA, GBC, and Global DCA Letter at 3-6; Letter from Gregory Babyak, Global Head of Regulatory Affairs and Gary Stone, Regulatory Analyst and Market Structure Strategist, Bloomberg L.P., dated Apr. 18, 2022 ("Bloomberg Letter I") at 22.

94 See 15 U.S.C. 78c(a)(1); Regulation ATS Adopting Release at 70900 n.544 (stating "the statutory definition of 'exchange' is written in the disjunctive"). Section 3(a)(1) of the Exchange Act states that an "exchange" includes any organization, association, or group of persons that constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood. Functions commonly performed by a stock exchange as that term is generally understood include, among other things, SRO functions and the listing of securities, by, for example, establishing or enforcing qualitative or quantitative listing standards. See Regulation ATS Adopting Release at 70880 (stating that "[r]egistered exchanges are able to establish listing standards, which may promote investor confidence in the quality of the securities traded on the exchange").

95 See Proposing Release at section II.C.

providing a trading facility or communication protocols, or by setting rules) under which buyers and sellers can interact and agree to the terms of a trade. The Commission proposed, among other changes, to replace the term "uses" with the term "makes available" in 17 CFR 240.3b-16(a)(2) ("Rule 3b-16(a)(2)"),[96] and to add "communication protocols" as an example of an established, non-discretionary method that an organization, association, or group of persons can provide to bring together buyers and sellers of securities.[97] The Commission received comment on the application of these proposed changes to all securities, including comments requesting the Commission to provide further consideration and opportunity for comments before adopting the proposed changes.[98] The Commission is now soliciting further comment on certain Proposed Rules.

In the Proposing Release, the Commission discussed two reasons it proposed to replace "uses established, non-discretionary methods" with the phrase "makes available established, non-discretionary methods." First, the Commission stated that the proposed change to use the term "makes available" rather than "uses" is designed to capture established, non-discretionary methods that an organization, association, or group of persons may provide, whether directly or indirectly, for buyers and sellers to interact and agree upon terms of a trade.[99] Unlike systems that "use" established non-discretionary methods to match buyers and sellers, communication protocols systems offer a different method for bringing together buyers and sellers by providing protocols that allow participants to interact, negotiate, and come to an agreement.[100]

Second, the term "makes available" was intended to make clear that, in the event that a party other than the organization, association, or group of persons performs a function of the exchange, the function performed by that party would still be captured for purposes of

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96 See id. at 15506.

97 See id. at 15506-07.

98 See Bloomberg Letter I at 13-15; SIFMA Letter II at 7.

99 See Proposing Release at 15506.

100 See id.

determining the scope of the exchange under Exchange Act Rule 3b-16.[101] The Commission has previously stated that it will attribute the activities of a trading facility to a system if that facility is offered by the system directly or indirectly (such as where a system arranges for a third party or parties to offer the trading facility).[102] The Commission also recognized how a system may consist of various functionalities, mechanisms, or protocols that operate collectively to bring together the orders for securities of multiple buyers and sellers using non-discretionary methods under the criteria of Rule 3b-16(a), and how, in some circumstances, these various functionalities, mechanisms, or protocols may be offered or performed by another business unit of the broker-dealer operator or by a separate entity.[103] The Commission stated that these principles apply equally to an organization, association, or group of persons that arranged with another party to provide, for example, a trading facility or communication protocols, or parts thereof, to bring together buyers and sellers and perform a function of a system under Rule 3b-16.[104] Consistent with the principles in the Regulation ATS Adopting Release, the term "makes available" would help ensure that the investor protection and fair and orderly markets provisions of the exchange regulatory framework apply to the activities performed through all functionalities, mechanisms, or protocols of a market place that meet the criteria of Rule 3b-16(a), notwithstanding whether those activities are performed by a party other than the organization that provides the market place.[105]

Commenters state that the proposed use of the term "makes available" would extend the scope of the exchange definition to a broad set of entities that provide services to a system and its participants and potentially create uncertainty and ambiguity.[106] One commenter states that the

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101 See id.

102 See id. (citing Regulation ATS Adopting Release at 70852).

103 See id.

104 See id.

105 See id. See also Regulation ATS Adopting Release at 70851-52.

106 See, e.g., Letter from Gregory Babyak and Gary Stone, Regulatory Affairs, Bloomberg L.P., dated Sept. 16, 2022 ("Bloomberg Letter II") at 2; Letter from Elisabeth Kirby, Head of U.S. Market Structure,

Proposing Release opens up the possibility that systems interacting with the ATS are themselves separate exchanges and questions when two or more unrelated entities might be viewed as collectively providing the services of an exchange.[107] One commenter expresses concern that the Proposed Rules would broaden the definition of "exchange" to include entities that do not themselves take an active role in matching orders but instead contribute in some manner to the efforts of buyers and sellers to identify each other and arrange trades, and that anyone who contributes to the existence of trading protocols could be considered to make them available.[108] Another commenter states that the Proposed Rules do not address "open-architecture platforms that integrate with or embed in a third-party application" and asks whether such activity would constitute making available communication protocols.[109] One commenter states that the proposed term "makes available" would expand the groups of persons subject to the Exchange Act to include those who expressly do not fall under the statutory language of section 3(a)(1)—"a party other than the organization, association, or group of persons" that performs a function on the exchange.[110] In addition, one commenter states the definition should only include entities that make available systems "with the intent to profit from trades to which they are not a party" and exclude those that integrate software available in the public domain and perform the role without a profit motive.[111]

Tradeweb Markets, Inc., dated Apr. 18, 2022 ("Tradeweb Letter") at 5; Letter from Ken McGuire, President, Aditum Alternatives & Aditum Asset Management, dated Feb. 21, 2022 ("Aditum Letter") at 2; Letter from Gene Hoffman, President & Chief Operating Officer, Chia Network, dated Apr. 16, 2022 ("Chia Network Letter") at 4-7; DARLA, GBC, and Global DCA Letter at 6-7; ConsenSys Letter at 13, 16-17; Blockchain Association Letter II at 8-9; ADAM Letter II at 8, 16; Eisenbach Letter at 2.

107 See SIFMA Letter II at 9 n.23.

108 See ConsenSys Letter at 16-17. See also DeFi Education Fund Letter at 9-10 (stating that "systems providing communication and other financial technology adjacent to trading, such as bespoke direct messaging or market information services, could be captured under the overbroad 'makes available' standard").

109 See Letter from Corinna Mitchell, General Counsel, Symphony Communication Services, dated Apr. 18, 2022 at 4. See also DeFi Education Fund Letter at 9-10 (stating the "makes available" language could subject software developers to exchange regulation "solely on the basis of having lines of their code subsequently used by unrelated parties"); Tradeweb Letter at 5 (stating that the proposed language might affect various forms of software tools widely used in the securities industry).

110 See Blockchain Association Letter II at 4-5 (quoting the Proposing Release at 15506).

111 See Aditum Letter at 2.

Request for Comment

10. In the Regulation ATS Adopting Release, the Commission stated that it would "attribute the activities of a trading facility to a system if that facility is offered by the system directly or indirectly (such as where a system arranges for a third party or parties to offer the trading facility)."[112] In explaining the term "makes available" in the Proposing Release, the Commission stated that it was "designed to capture established, non-discretionary methods that an organization, association or groups of person may provide, whether directly or indirectly."[113] To ensure that an exchange function performed by a party is appropriately captured under Exchange Act Rule 3b-16, should the Commission adopt alternative language to "makes available"? Please explain. For example, should the Commission adopt "Uses established, non-discretionary methods (whether by providing, directly or indirectly, a trading facility…)"? Would the addition of the phrase "directly or indirectly" align Rule 3b-16 more closely with prior Commission statements in the Regulation ATS Adopting Release[114] and focus the rule text on a function that a party performs in the provision of an established, non-discretionary method to bring together buyers and sellers? Would the phrase "directly or indirectly" reduce commenters' concerns about the proposed "makes available" language being overbroad? Why or why not? What, if any, limiting principles should be applied to determining when a person provides "directly or indirectly" a trading facility or communication protocols (or "negotiation protocols")?[115] Please explain.

11. The Commission proposed to remove the term "uses" and insert the term "makes available" before "established, non-discretionary methods" because the Commission

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112 See Regulation ATS Adopting Release at 70852.

113 See Proposing Release at 15506.

114 See id. (citing Regulation ATS Adopting Release at 70852).

115 See infra Request for Comment #13.

proposed to include as an established, non-discretionary method communication protocols under which buyers and sellers can interact and agree to the terms of a trade. Communication protocols would be in addition to a trading facility, which is an existing established, non-discretionary method under existing Exchange Act Rule 3b-16(a)(2) and is used by the provider of the exchange to match buyers and sellers. Instead of the terms "uses" and "makes available," should the Commission adopt amendments to Exchange Act Rule 3b-16(a)(2) that state "[E]stablishes non-discretionary methods (whether by providing, directly or indirectly, a trading facility or…)"? The addition of the term "establishes" would adhere to the concept of "established" in existing Exchange Act Rule 3b-16(a)(2) and be consistent with the Commission's explanation in the Regulation ATS Adopting Release that the person who establishes non-discretionary methods is dictating the terms of trading among buyers and sellers on the system.[116] For example, an organization that establishes a non-discretionary method would be providing a trading facility or providing communication protocols (or "negotiation protocols"[117]) or setting rules for buyers and sellers to interact and agree upon the terms of a trade.

C. Non-Discretionary Method: Communication Protocols

In the Proposed Rules, the Commission proposed to add "communication protocols" to Exchange Act Rule 3b-16(a) as a non-discretionary method that an organization, association, or group of persons could provide for buyers and sellers to interact and agree upon the terms of a trade.[118] In the Proposing Release, the Commission explained that communication protocols, which can be applied to various technologies and connectivity, are provided along with the use of non-firm trading interest (as opposed to firm orders) to prompt and guide buyers and sellers to

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116 See Regulation ATS Adopting Release at 70850.

117 See infra Request for Comment #13.

118 See Proposing Release at 15507.

communicate, negotiate, and agree to the terms of the trade.[119] The Commission also provided examples of trading systems that function as market places or facilities for securities by providing communication protocols.[120] The Commission provided an example of an entity making available a chat feature that has the additional requirement that certain information be included in a chat message (e.g., price, quantity) and also setting parameters and structure designed for participants to communicate about buying or selling securities as a system that would have established communication protocols.[121] The Commission also explained what would not be a communication protocol system for purposes of the Proposed Rules.[122]

The Commission received comment that the term "communication protocol" is too broad and vague and that it is unclear what activities or entities would be classified as communication protocol systems.[123] Commenters suggest that the Commission should define the term "communication protocol system" to avoid uncertainty as to who is included or not included under its scope.[124] Commenters state that the broad concept of a communication protocol system could capture various types of technologies used by market places for securities, including, for

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119 Id.

120 See id. at 15500-01. These trading systems could include, among others, RFQ systems, stream axes, conditional order systems, and bilateral negotiation systems.

121 See id. at 15507.

122 See, e.g., id. For example, the Commission stated that it did not intend for communication protocols to include systems that only provide the connectivity or technology that allows buyers and sellers to communicate (such as utilities or providers of stand-alone electronic web chat) without also establishing non-discretionary methods that govern how the communications are allowed to proceed as participants agree to the terms of a trade. See id.

123 See, e.g., Letter from Lindsey Weber Keljo, Head of Asset Management Group, William C. Thum, Managing Director and Assistant General Counsel, Securities Industry and Financial Market Association, dated Apr. 18, 2022 ("SIFMA AMG Letter") at 6; Letter from Charles V. Callan, Broadridge Financial Solutions, Inc., dated Apr. 18, 2022 ("Broadridge Letter") at 2; Letter from Douglas A. Cifu, Chief Executive Officer, Virtu Financial, Inc., dated Apr. 18, 2022 ("Virtu Letter") at 11; Letter from Jennifer W. Han, Managed Funds Association, dated Apr. 18, 2022 ("MFA Letter") at 7-10; Letter from David R. Burton, Senior Fellow in Economic Policy, The Heritage Foundation, dated Apr. 18, 2022 ("Burton Letter") at 2.

124 See, e.g., Healthy Markets Letter at 6; Letter from Scott Pintoff, General Counsel, MarketAxess, dated Apr. 18, 2022 ("MarketAxess Letter") at 5; Broadridge Letter at 2; Virtu Letter at 11. Another commenter, in expressing concern about the scope of the Proposed Rules, describes that the Proposed Rules did not define "communication protocol system." See McHenry/Huizenga Letter at 2.

example, front-end graphical user interfaces ("GUIs"), web chat providers,[125] primary market communication systems,[126] software solutions,[127] or trading desks of a broker-dealer.[128] Commenters state that the uncertainty could give the impression that employing the term expands the scope of exchange regulation to all communication methods.[129]

Request for Comment

12. In existing Exchange Act Rule 3b-16(a)(2), non-discretionary methods include providing a trading facility or setting rules governing the interaction of orders. "Trading facility" and "setting rules" are not defined in the rule text but are explained in the Regulation ATS Adopting Release and the Commission provided examples of each.[130] The Commission proposed "communication protocols" as another non-discretionary method for trading interest in the Proposing Release. Should the Commission adopt Exchange Act Rule 3b-16(a)(2), as proposed to be amended, to include "communication protocols" as an example of a non-discretionary method under which buyers and sellers can interact and agree to the terms of a trade? Why or why not? In addition to the guidance provided in the Regulation ATS Adopting Release, should the Commission provide guidance on what "non-discretionary methods" means under Exchange Act Rule 3b-16?

13. To reflect systems that provide non-discretionary methods under which buyers and sellers negotiate terms of a trade, should the Commission adopt amendments to

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125 See, e.g., GDCA Letter II at 9; Coin Center Letter at 19-20.

126 See Letter from Scott Eisenberg, Head of Legal, DirectBooks LLC, dated Apr. 18, 2022.

127 See SIFMA Letter II at 9.

128 See Letter from Christopher A. Iacovella, Chief Executive Officer, American Securities Association, dated Apr. 18, 2022 ("ASA Letter") at 3.

129 See, e.g., Bloomberg Letter I at 19; Chia Network Letter at 2 (stating that "the Commission's proposed amendments [put] the entire Internet and connectivity businesses in jeopardy of tripping over the [Exchange Act]").

130 See Regulation ATS Adopting Release at 70851-52. The Regulation ATS Adopting Release stated that the Commission intended for "'established, non-discretionary methods' to include any methods that dictate the terms of trading among the multiple buyers and sellers entering orders into the system." Id. at 70850.

Exchange Act Rule 3b-16(a)(2) that replace the proposed term "communication protocols" with the term "negotiation protocols" and adopt the following definition under a new Rule 3b-16(f):

> For purposes of this section, the term "negotiation protocols" means a non-discretionary method that sets requirements or limitations designed for multiple buyers and sellers of securities using trading interest to interact and negotiate terms of a trade.

14. As discussed above, some commenters state that the term "communication protocol" is too broad and vague and that it is unclear what activities or entities would be classified as communication protocol systems.[131] The term "negotiation protocols" could better focus the non-discretionary methods that the Commission intended to capture in the proposed amendments to Exchange Act 3b-16(a)(2) than the term "communication protocols." The term "negotiation protocols" would be another example, in addition to directly or indirectly providing a trading facility or setting rules, of a non-discretionary method established by an exchange under which buyers and sellers can negotiate and agree to the terms of a trade. What are commenters' views of the term "negotiation protocols"? Are there any terms that should be added, deleted, or modified in the definition of "negotiation protocol" to make the definition more precise or appropriate? Are there other non-discretionary methods under which buyers and sellers can interact and agree to the terms of a trade that the Commission should add to Rule 3b-16(a)(2)? If so, please explain. What other types of protocols under which buyers and sellers can interact and agree to the terms of a trade exist or can be provided?

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131 See supra note 123.

15. The definition of "negotiation protocols" described above would set requirements or limitations designed to govern how the trading interest is used by participants to interact and negotiate a trade. Should a definition of "negotiation protocols" specify both requirements and limitations that would constitute a non-discretionary method? Why or why not?

16. As an alternative to adopting a definition of "negotiation protocols" in the rule text, should the Commission provide an explanation and examples of what negotiation protocols are and are not in any adopting release, similar to what the Commission did in the Regulation ATS Adopting Release when analyzing the application of Rule 3b-16 to hypothetical Systems A through T?[132] In the Proposing Release, the Commission provided examples of trading systems that offer the use of non-firm trading interest and established protocols that would meet the criteria of Exchange Act 3b-16, as proposed to be amended (e.g., RFQ, conditional order systems, indication of interest systems).[133] Should the Commission adopt those examples as hypotheticals that would meet the criteria of Rule 3b-16 similar to the hypotheticals in the Regulation ATS Adopting Release? Please explain. Should the examples that the Commission provided in the Proposing Release change in any way? Are there any other examples that the Commission should adopt to describe New Rule 3b-16(a) Systems? Please describe any such examples.

17. As discussed above, whether an organization, association, or group of persons meets the definition of an exchange depends on the activities performed and not the technology used. The Commission received comments requesting the Commission clarify that order management systems, order execution systems, and order execution management systems (collectively referred to as "OEMS" technology) do not meet

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132 See Regulation ATS Adopting Release at 70854-56.

133 See Proposing Release at 15500-01.

the criteria of Rule 3b-16, as proposed to be amended.[134] The Commission understands that brokers, dealers, and investment advisers use OEMS technology to carry out their respective Commission-regulated activities. The proposed amendments to Rule 3b-16 were not designed to capture within the definition of exchange the activities of brokers, dealers, and investment advisers who use an OEMS to carry out their functions (e.g., organizing and routing trading interest). The use of OEMS technology, however, like other types of technology, could be used, in certain circumstances, to perform exchange activities (e.g., crossing orders of multiple buyers and sellers using established non-discretionary methods). The Commission requests comment on what activities are performed today using OEMS technology and how the use of OEMS technology might change in the future. The Commission requests comment on whether and how activities performed through the use of OEMS technology could meet the criteria of Rule 3b-16(a), as proposed to be amended. Please explain why or why not.

18. In light of comments that the concept of a communication protocol system could capture various types of technologies used by market participants for securities (e.g., GUIs, web chat providers, primary market communication systems, software solutions, or trading desks of a broker-dealer), please explain in detail and provide

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134 See Bloomberg Letter I at 16; SIFMA AMG Letter at 11; Broadridge Letter at 3; MFA Letter at 9; Letter from Kelvin To, Founder and President, Data Boiler Technologies, LLC, dated Apr. 18, 2022 at 9. Several commenters express general concerns about and set forth policy arguments against including OEMSs within the Commission's exchange regulation. See, e.g., SIFMA AMG Letter at 6 (asserting that "the Commission's drafting risks moving too far beyond trading venues and is potentially capturing a broad range of OEMS, ETF portal, and single user systems carefully developed by a diverse group of market participants to introduce efficiencies and costs savings into the market, but which do not allow for separate users to interact and do not directly connect with multiple brokers to confirm the non-discretionary execution of orders"); Letter from Sarah Bessin, Associate General Counsel, Investment Company Institute, dated Apr. 18, 2022 ("ICI Letter") at 9 (arguing that there are no perceived regulatory benefits from applying the ATS or broker-dealer regulatory framework to internalized trading activity on OEMSs, which is independently regulated, and stating that it may "frustrate advisers' ability to seek best execution on behalf of their clients").

examples of the specific activities performed through the use of such technology identified by commenters.

19. In response to the Proposing Release, the Commission received several comments expressing concern that the expansion of Exchange Act Rule 3b-16 might encompass general Internet chat services, such as WhatsApp, Twitter, and Reddit.[135] As stated in the Proposing Release, systems that provide general connectivity for persons to communicate without protocols containing requirements and limitations to negotiate trades for securities (e.g., utilities or electronic web chat providers) would not fall within the definition of exchange, as proposed to be amended.[136] However, the determination as to whether a given system would meet the criteria under Rule 3b-16(a), as proposed to be amended, must be based on the facts and circumstances surrounding the operation of the system, not the market name or categorization (i.e., simply because a program is called a "chat" or "messaging" service, it does not mean the service is per se outside the scope of Rule 3b-16(a), as proposed to be amended). For example, if a chat or messaging service was provided with a display functionality for trading interest in securities, an execution facility for securities, or protocols for participants to negotiate, the mere fact that the system contains a chat feature or message service would not necessarily preclude it from meeting the criteria of Rule 3b-16 as proposed to be amended. What features of a chat or message service could be considered protocols (i.e., requirements or limitations) under Rule 3b-16, as proposed to be amended, that would allow buyers and sellers to interact and negotiate

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135 See, e.g., Chia Network Letter at 4-7 (stating that the expansion to parties that "make available" established, non-discretionary methods could capture large numbers of Internet and telecommunications providers, including any company that makes any sort of messaging system available to Internet users such as Twitter and Reddit, and creates regulatory uncertainty for all such entities); GDCA Letter II at 10 (stating that the term trading interest "sweeps up dialogue that otherwise would be outside the rules," such as "'inadvertent' or 'incidental' exchange activity" through protocols "with a primary social or business use unrelated to trading" that are "used secondarily or incidentally for trading").

136 See Proposing Release at 15502 n.72.

a trade for securities? Are there currently any types of chat services that are solely used for discussing securities but are not used for negotiating a securities trade? Are there any types of chat services that are currently designed for buyers and sellers to interact and negotiate a trade for securities? Please explain why or why not.

20. Do commenters believe that there are other technologies, such as social networking websites, business communication platforms, financial information systems, blockchain technology nodes and smart contracting platforms,[137] that could be used to perform activities that meet the criteria of Exchange Act Rule 3b-16(a), as proposed to be amended? Are there any features of these systems that could be considered protocols (i.e., requirements or limitations) that allow buyers and sellers to interact and negotiate a trade for securities? Please explain.

21. Form ATS is designed to enable the Commission to determine whether an ATS subject to Regulation ATS is in compliance with Regulation ATS and other federal securities laws.[138] Form ATS provides disclosures about, among other things, classes of subscribers, securities traded, manner of operation, and procedures governing the execution, reporting, clearance, and settlement of transactions. Proposed Item 3(c) of Form ATS (current Form ATS Exhibit B) requires an ATS to disclose a list of securities the ATS trades or expects to trade, and requires disclosure of all securities, which includes crypto asset securities.[139]

22. Form ATS-N is designed to provide market participants with information to, among other things, help them make informed decisions about whether to participate on an NMS Stock ATS (and, as proposed, on a Government Securities ATS).[140] Proposed Part I, Item 8 of Form ATS-N would require an NMS Stock ATS or Government

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137 See infra note 278.

138 See Form ATS Instruction A.6.

139 See Proposing Release at 15653.

140 See Form ATS-N Instruction D.

Securities ATS to disclose information about the NMS stocks and government securities that it makes available for trading, which would include any NMS stocks or government securities that are crypto asset securities.[141] Should the Commission adopt an amendment to proposed Item 3(c) of Form ATS or proposed Part I, Item 8 of Form ATS-N to require ATSs and NMS Stock ATSs and Government Securities ATSs to specifically identify the securities that are crypto asset securities? Why or why not? Should the Commission make any other changes to Form ATS and Form ATS-N in light of the Proposing Release and the information provided in this Reopening Release?

23. Form ATS-R, which is filed on a quarterly basis and deemed confidential when filed, is designed to enable the Commission to more effectively track the growth and development of ATSs, as well as to more effectively comply with its statutory obligations with respect to ATSs, and improve investor protection.[142] Among other things, Form ATS-R requires ATSs to list all securities that were traded on the ATS at any time during the period covered by the report[143] and to report total unit and dollar volume of transactions for certain categories of securities.[144] Should Form ATS-R be amended to require ATSs to indicate whether any of the types of securities traded on the ATS are crypto asset securities? For example, should Form ATS-R include a checkbox for each type of security listed on Form ATS-R for the ATS to indicate whether any of the securities transacted are crypto asset securities? Why or

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141 See Proposing Release at 15542.

142 See Form ATS-R Instruction A.7.

143 See Form ATS-R Item 3. Form ATS-R also requires a list of all subscribers that were participants of the ATS during each calendar quarter. See Form ATS-R Item 2.

144 See Form ATS-R Item 4. For example, Form ATS-R requires NMS Stock ATSs to report the total unit and dollar volume of transactions in NMS stocks that are reported to the consolidated tape in "Listed Equity Securities" (Item 4A), "Nasdaq National Market Securities" (Item 4B), or "Nasdaq SmallCap Market Securities" (Item 4C). In the Proposing Release, the Commission proposed to delete the categories "Nasdaq National Market Securities" and "Nasdaq SmallCap Market Securities" and require ATSs to report the total volume previously reported under these categories under "Listed Equity Securities." See Proposing Release at 15580.

why not? Should Form ATS-R be amended to require an ATS to report the total unit and dollar volume of transactions in crypto asset securities for each category of securities? Why or why not? Should the Commission make any other changes to Form ATS-R in light of the Proposing Release and the information provided in this Reopening Release?

24. Information about a New Rule 3b-16(a) System's operations, including operations related to non-firm trading interest and protocols provided for buyers and sellers to interact and negotiate the terms of a trade, would be responsive to proposed Item 3(g) of Form ATS, which requires a description of the manner of operation of the ATS. To assist New Rule 3b-16(a) Systems in responding to Form ATS, should the Commission adopt an amendment to proposed Item 3 of Form ATS to add the following requirement as a disclosure: "any display of trading interest" and "protocols provided for buyers and sellers to interact and negotiate the terms of a trade"? Please explain why or why not. Although this information would be responsive to current Form ATS Item 8(a) and would be required to be included in current Form ATS Exhibit F, the explicit references would make clear to ATSs that such information is responsive to the form and must be provided.

25. Proposed Item 3(j) of Form ATS (current Form ATS Item 8(d), which is required to be disclosed on Exhibit F) would require an ATS to provide "a description of the procedures governing execution, reporting, clearance, and settlement of transactions effected through the [ATS]."[145] Should the Commission adopt an amendment to the Item to include a reference to the use of DLT among the procedures so that the Item would state that the ATS must include "a description of the procedures, including through use of DLT, governing execution, reporting, clearance, and settlement of

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145 See id. at 15654.

transactions effected through the alternative trading system"? Please explain why or why not. Although a description of the use of DLT, or any other technology, in these processes is currently required by the term "procedures," the explicit reference to DLT would make clear that a description of its use would be required to be provided in Form ATS.

26. As discussed above, several commenters ask questions about how so-called "DeFi" systems could comply with the requirements of Regulation ATS.[146] Form ATS-N, which provides operational transparency and regulatory oversight of NMS Stock ATSs and, as proposed, of Government Securities ATSs, is technology neutral and asks questions designed to apply to ATSs that vary in structure and offer many different functionalities and trading processes and procedures. However, Form ATS-N provides examples of specific functionalities and procedures that would be responsive to particular questions. To assist subject systems in responding to Form ATS-N, should the Commission adopt any changes, particularly to the examples provided in Form ATS-N, to clarify and highlight the applicability of certain items in Form ATS-N to NMS Stock ATSs and Government Securities ATSs that use DLT? Should, for example, the Commission adopt amendments to proposed Part II, Item 5 to provide examples of other products and services that the operator of a system that uses DLT may provide for the purpose of effecting transactions or submitting, disseminating, or displaying trading interest on the ATS?[147] Should the Commission adopt amendments to Part III, Item 5(a) to provide web-based systems as an example of means by which the NMS Stock ATS or Government Securities ATS permits trading interest to be entered directly into the ATS?[148] Should the Commission adopt

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146 See, e.g., supra note 55.

147 See Proposing Release at 15546-48.

148 See id. at 15552-53.

amendments to Part III, Item 15 to provide examples of blockchain-based means by which trading interest can be displayed or made known to the ATS subscribers or the public?[149] Should the Commission adopt amendments to proposed Part III, Item 21 to provide examples of blockchain-based procedures to manage the post-trade processing, clearance, and/or settlement on the ATS?[150] Should the Commission adopt amendments to proposed Part III, Item 22 to provide examples of blockchain-based market data sources?[151]

D. Exclusion from Exchange Act Rule 3b-16(a)

In the Proposing Release, the Commission proposed to amend Rule 3b-16(b) to add an exclusion from Rule 3b-16(a) for systems that allow an issuer to sell its securities to investors.[152] The Commission stated in the Proposing Release that the exclusion was merely codifying in Rule 3b-16(b)(3) an example the Commission provided in the Regulation ATS Adopting Release for systems that have a single seller of its securities.[153] While such systems have multiple buyers (i.e., investors), they have only one seller for each security (i.e., issuers) and, therefore, do not meet the criteria of Rule 3b-16(a) because the systems do not bring together multiple buyers and multiple sellers.[154]

One commenter states that it is unclear whether the issuer exclusion would cover portals on which multiple issuers offer securities.[155] Another commenter suggests that the exclusion for issuer systems should be revised to state that it applies to a system that "allows one or more

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149 See id. at 15563-65. Such amendments could provide examples of blockchain-based means by which: an ATS may display trading interest to its subscribers or the public; a subscriber can display or make known trading interest through the ATS; and trading interest bound for the ATS is made known to any person. See id.

150 See id. at 15568-69.

151 See id. at 15569.

152 See proposed Rule 3b-16(b)(3).

153 See Regulation ATS Adopting Release at 70849.

154 Id.

155 See SIFMA AMG Letter at 8.

issuers to sell their securities to investors, either directly or through placement agents or underwriters."[156] This commenter states that a system that allows more than one issuer to sell its own securities is a single counterparty system because for any particular security, there is only one counterparty, the issuer of the securities.[157] This commenter further states that including the phrase "or through placement agents or underwriters" is needed to make clear that the issuer exclusion may continue to be applied if the system permits an issuer to use brokers or underwriters, and this approach is desirable because it permits the interposition of registered brokers, who provide a multitude of services protective of the rights of investors.[158]

Two commenters request that the Commission confirm that a system or portal that an exchange-traded fund ("ETF") sponsor uses to facilitate ETF primary market operations (i.e., creation and redemption of ETF shares) ("ETF Portal") is not a communication protocol system, as defined in the Proposing Release, and otherwise does not meet the definition of "exchange," as proposed to be amended.[159] The commenters state that ETF Portals enable registered broker-dealers that serve as an ETF's authorized participants ("APs") to communicate creation or redemption requests for an ETF.[160] One of the commenters states that ETF Portals do not create a market place for secondary market trading activity (i.e., trading of the actual ETF shares among individual investors) because they are used by ETF sponsors for the specific purpose of creating and redeeming their own issued securities.[161] In this respect, this commenter believes that ETF

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156 See ABA Letter at 8.

157 Id. at 9.

158 Id.

159 See SIFMA AMG Letter at 8; ICI Letter at 13. The commenters state that they do not believe that the Commission intended to classify ETF Portals as exchanges under Rule 3b-16, as proposed to be amended. See id.

160 See id.

161 See ICI Letter at 14. This commenter also states that an ETF Portal's activities are limited in the following respects: "(1) the scope of ETFs involved in the creation or redemption process is confined to those offered by the ETF sponsor; (2) only registered broker-dealers that have an established agreement with an ETF sponsor's ETF to act as an AP can submit creation or redemption requests to the ETF; and (3) the system or portal does not directly facilitate secondary market activity in the ETF (i.e., trading of the actual ETF shares among individual investors), nor does it provide access for individual investors that are not registered broker-dealers." Id. at 13.

Portals are similar to a system that allows issuers to sell their own securities to investors.[162] Another commenter similarly agrees that ETF Portals should not be included in the definition of an "exchange" and does not believe there would be any public benefit to treating such portals as exchanges and requiring ATS registration.[163]

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27. Should the Commission adopt Rule 3b-16(b)(3), as proposed to be amended? Why or why not? Should the Commission adopt the proposed Rule 3b-16(b)(3) exclusion but with certain revisions? If so, please identify those revisions and explain. For example, should the Commission adopt, as suggested by one commenter, the proposed issuer exclusion with revisions to state that it applies to a system that "allows one or more issuers to sell their securities to investors, either directly or through placement agents or underwriters"? In particular, should the Commission add "one or more issuers" to the proposed issuer exclusion? What types of systems would be covered under the revised issuer exclusion example above? Please explain. Is the inclusion of "either directly or through placement agents or underwriters" in the revised issuer exclusion example above necessary or appropriate to clarify its application? If so, why?

28. How do ETF Portals operate for the creation and redemption of securities? Who are the participants in ETF Portals and how do they interact? Are there any trading activities conducted as part of the creation and redemption process through an ETF Portal that are exchange activities or necessitate further clarification by the Commission as to whether such activities are exchange activities? Do an ETF Portal's activities facilitate secondary market activity in the ETF? Why or why not?

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162 See id. at 14. This commenter further states that applying the Regulation ATS and broker-dealer regulatory frameworks to ETF Portals would impose unnecessary additional costs and burdens to the ETF creation and redemption process, lead to unintended consequences, and would not further the Commission's regulatory objectives. See id. at 4.

163 See SIFMA AMG Letter at 8.

Does trading in ETF Portals involve multiple buyers and sellers of securities? Why or why not? What non-discretionary methods are generally used by ETF Portals?

29. Do ETF Portals fall within the criteria of existing Exchange Act Rule 3b-16(a) or Rule 3b-16(a), as proposed to be amended? Why or why not? If the activities conducted through ETF Portals fall within the criteria of existing Exchange Act Rule 3b-16(a) or Rule 3b-16(a), as proposed to be amended, should the Commission adopt an exclusion under Exchange Act Rule 3b-16(b)(3) for ETF Portals? If yes, please explain why and explain what the exclusion should apply to. How should an ETF Portal be defined for purposes of the exclusion? For example, should the Commission expressly adopt an exclusion that applies only to ETF Portals that fall within this definition: "a system that allows one or more issuers from the same sponsoring entity to solicit creation or redemption requests for their own securities submitted by authorized participants for those securities"? Should the Commission adopt an exclusion that applies only to platforms that solely support primary market transactions in investment company securities, where the issuer of the security participates in each transaction either as the sole buyer, or as the sole seller? If so, should the exclusion be available only for securities issued by ETFs or also for securities issued by other investment companies? Should the exclusion specify that it is available only for transactions that take place at a price based on the current net asset value of the security, as required by 17 CFR 270.22c-1 (Rule 22c-1 under the Investment Company Act of 1940)? What ETF Portals should not be excluded from Exchange Act Rule 3b-16(a)? Please explain.

E. Compliance Date for Implementation of Proposed Amendments to Rule 3b-16

Exchange Act Rule 3b-16, as proposed to be amended, would require, if adopted, New Rule 3b-16(a) Systems to comply with federal securities laws applicable to national securities

exchanges and ATSs. These systems may trade securities that are crypto asset securities, or specific types of securities, including NMS stock, over-the-counter ("OTC") equity securities, corporate bonds, municipal securities, government securities, foreign sovereign debt, asset-backed securities, restricted securities, or options. New Rule 3b-16(a) Systems provide access to numerous and diverse market participants (e.g., retail investors, institutional investors, broker-dealers, issuers) seeking to perform different trading strategies and investment objectives in various types of securities. To facilitate these market participants' trading strategies and investment objectives, providers of these trading systems employ assorted technology and protocols (e.g., Internet, DLT, cloud) and apply a variety of methods to bring together buyers and sellers in securities (e.g., RFQ, indication of interest, negotiation, conditional orders, bid wanted in competition, streaming axes).

Several commenters express concern that New Rule 3b-16(a) Systems would not be provided enough time to comply with their new regulatory obligations.[164] As stated in the Proposing Release, the Commission expects that many New Rule 3b-16(a) Systems would elect to register as broker-dealers and comply with Regulation ATS;[165] however, they can also elect to register as exchanges.[166] The Commission recognizes that New Rule 3b-16(a) Systems are operating today and would seek to comply with the Proposed Rules without disrupting their current business and their participants. To facilitate the trading system operators' compliance with the Proposed Rules, the Commission is soliciting further public comment on any compliance dates for the Proposed Rules.

Request for Comment

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164 See, e.g., MarketAxess Letter at 5; Letter from Teana Baker-Taylor, Chief Policy Officer, Chamber of Digital Commerce, dated Mar. 24, 2022 ("Chamber Letter") at 5; Letter from Elisa Hirschmann, Executive Director, Chief Compliance Officer, BrokerTec Americas LLC, CME Group, Inc., dated Apr. 18, 2022 at 4; Bloomberg Letter I at 4-5; Letter from Scot J. Halvorsen, Associate General Counsel, Cboe Global Markets, Inc., dated Apr. 18, 2022 ("Cboe Letter") at 2; Crypto Council Letter at 7.

165 See Proposing Release at 15502.

166 See id. at 15617-18.

30. Should the Commission adopt a compliance date to delay implementation for New Rule 3b-16(a) Systems? Why or why not? Should the Commission adopt the same compliance date for all New Rule 3b-16(a) Systems or different compliance dates depending on certain factors, such as the type of securities the system trades? Please explain. For example, should the Commission adopt separate compliance dates to implement the proposed amendments to Exchange Act Rule 3b-16 for trading systems that trade one or more of the following: NMS stock, OTC equity securities, corporate bonds, municipal securities, government securities, foreign sovereign debt, asset-backed securities, restricted securities, or options? Please explain.

31. As indicated above, crypto assets generally use DLT as a method to record ownership and transfers, and a crypto asset that is a security is not a separate type or category of security for purposes of federal securities laws based solely on the use of DLT.[167] Should the Commission adopt a separate compliance date for New Rule 3b-16(a) Systems that trade crypto asset securities?[168] Please explain. If the Commission adopts a different compliance date for New Rule 3b-16(a) Systems that trade crypto asset securities, for purposes of ascribing such compliance date, should "crypto asset securities" be defined to mean securities that are also issued and/or transferred using distributed ledger or blockchain technology, including, but not limited to, so-called "virtual currencies," "coins," and "tokens," to the extent they rely on cryptographic protocols?[169] Please explain.

32. Should the Commission adopt a uniform compliance period for all categories of securities that is one year? Or would a shorter or longer time period than one year be

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167 See supra note 27 and accompanying text.

168 Such a delayed compliance date for New Rule 3b-16(a) Systems would not impact the obligation of systems that meet the existing criteria of Rule 3b-16 to comply with existing rules.

169 In the past, the Commission used this definition for "digital asset securities" in the Commission Statement on Custody of Digital Asset Securities by Special Purpose Broker-Dealers. See supra note 26.

sufficient or necessary? If commenters believe the Commission should adopt different compliance dates for trading systems that trade a category of security, what compliance date should the Commission adopt for such trading systems? Please explain.

33. Should the Commission adopt different compliance dates for New Rule 3b-16(a) Systems based on the types of participants that trade on the system? For example, should the Commission adopt a delayed compliance date for trading systems that have predominately retail, institutional, or broker-dealer participants? Please explain. What compliance date should the Commission adopt for these types of trading systems? Please explain.

34. Should the Commission adopt different compliance dates for New Rule 3b-16(a) Systems based on the different means by which participants enter trading interest into the system? For example, should the Commission adopt a delayed compliance date for trading systems that perform intermediary services, such as entering trading interest into the trading system on behalf of users or offering users services other than trading? Should the Commission adopt a delayed compliance date for trading systems that allow buyers and sellers to enter trading interest into the system directly without an intermediary? Please explain. What compliance date should the Commission adopt for these types of trading systems? Please explain.

35. Should the Commission adopt different compliance dates for New Rule 3b-16(a) Systems based on different trading protocols that bring together buyers and sellers to negotiate a trade? For example, should the Commission adopt different compliance dates for trading systems that provide RFQs, indications of interest, bids wanted in competition, or streaming axes? Should the Commission adopt a delayed compliance date for trading systems that use AMMs for buyers and sellers to enter trading interest

into the system and negotiate a trade? What compliance date should the Commission adopt for these types of trading systems? Please explain.

36. Should the Commission adopt different compliance dates for New Rule 3b-16(a) Systems based on the technology supporting its exchange activity (e.g., Internet, DLT, cloud)? For example, should the Commission adopt a delayed compliance date for trading systems that use DLT to bring together buyers and sellers using trading interest and establish protocols that allow participants to negotiate a trade? Please explain. What compliance date should the Commission adopt for these types of trading systems? Please explain.

37. Should the Commission adopt different compliance dates for New Rule 3b-16(a) Systems based on the volume that trading systems transact? For example, should the Commission adopt a delayed compliance date for a trading system that transacts a certain level of dollar volume or share volume, and if so, what should that volume be? Should the Commission adopt different compliance dates for trading systems based on all of their transaction volume or only transaction volume in a category of security or in a crypto asset security? Please explain. What compliance date should the Commission adopt for these types of trading systems? Please explain.

38. Should the Commission adopt different compliance dates for New Rule 3b-16(a) Systems based on a combination of factors described above or any other factors? Please explain.

IV. Paperwork Reduction Act

In the analysis of the proposed rule amendments under the Paperwork Reduction Act of 1995 ("PRA") of the Proposing Release, the Commission estimated 22 Communication Protocol Systems[170] would be impacted by the Proposed Rules. This estimate included systems that offer

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[170] The Proposing Release referred to systems that would newly meet the definition of "exchange" under the Proposed Rules as "Communication Protocol Systems." See Proposing Release at 15496 n.5. See also id. at 15586 (estimating the total number of Communication Protocol Systems to be 22).

trading of OTC equity securities and restricted securities, some of which trade crypto asset securities.

The Commission is revising the estimated number of trading systems that would be impacted by the proposed amendments to Exchange Act Rule 3b-16 to include: (1) New Rule 3b-16(a) Systems that trade crypto asset securities and were not included in the estimates in the Proposing Release, and (2) New Rule 3b-16(a) Systems for non-crypto asset securities that have exited, entered, or intend to enter, the market since the Commission issued the Proposing Release. The Commission is not revising its estimate of the per-respondent burdens that would be imposed by the proposed amendments to Rule 3b-16(a). The summary of the "collection of information" requirements within the meaning of the PRA and the proposed use of such information described in the Proposing Release are unchanged.

A. Respondents

As discussed in the Proposing Release,[171] the Commission believes that New Rule 3b-16(a) Systems would likely choose to register as a broker-dealer and comply with the conditions of Regulation ATS rather than register as a national securities exchange because of the lighter regulatory requirements imposed on ATSs, as compared to registered exchanges.[172] For purposes of this PRA analysis, New Rule 3b-16(a) Systems that would comply with Regulation

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171 See id. at section VII.

172 See id. at section II.D. As discussed above, today, the Commission preliminarily believes that some amount of crypto asset securities trade on New Rule 3b-16(a) Systems. See supra note 31. These systems are not included as estimated respondents for the purposes of the PRA analysis because they are already required to comply with current applicable regulations; the proposed amendments to Rule 3b-16 would not result in any new burden on these systems. Rather, the PRA analysis includes the estimated number of respondents for which a new burden would be imposed by the proposed amendments to Rule 3b-16. Further, as discussed earlier in this section, the Commission is not revising its estimate of the per-respondent burdens that would be imposed by the proposed amendments to Rule 3b-16. The increase in the estimate of total burdens across all respondents is due solely to the Commission revising its estimate of the number of respondents to include: (1) systems that would meet the criteria of Rule 3b-16, as proposed to be amended, and trade crypto asset securities; and (2) systems that would meet the criteria of Rule 3b-16, as proposed to be amended, and trade securities that are not crypto asset securities and have entered, intend to enter, or exited the market since the Commission issued the Proposing Release.

ATS are referred to as "Newly Designated ATSs."[173] In the Proposing Release, the Commission estimated the total number of Newly Designated ATSs, across all asset classes, to be 22.[174] Since issuing the Proposing Release, the Commission has learned, based on public sources of information, of several trading systems that appear to offer the use of non-firm trading interest, provide non-discretionary protocols, trade crypto asset securities, and were not included within the Commission's initial estimate of the number of respondents. Based on publicly-available information, these trading systems may meet the criteria of Exchange Act Rule 3b-16(a) as proposed to be amended and therefore, this PRA analysis includes estimates of the burdens that these systems would incur under the Proposed Rules. Many of the entities operating such trading systems, however, depending on their activities and other facts and circumstances, may be subject to existing federal securities laws and registration requirements, including the requirement to register as an exchange under existing criteria of Rule 3b-16(a) or the requirement to register as a broker-dealer. In this regard, the Commission recognizes that it may be over-estimating the number of respondents that may be subject to the Proposed Rules. Specifically, the Commission is revising the estimated total number of Newly Designated ATSs from the 22 estimated systems in the Proposing Release to a total of 35-46 estimated Newly Designated ATSs,[175] which would include: (1) an additional 15-20 New Rule 3b-16(a) Systems that trade

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173 See supra note 170. The description of respondents and burden estimates described in this Reopening Release for Newly Designated ATSs supersedes and replaces corresponding respondent and burden estimates for Communication Protocol Systems in the Proposing Release.

174 See Proposing Release at section VII.C.

175 As discussed in the Proposing Release, some of the estimates could change based on how the Newly Designated ATSs structure their operations if subject to Regulation ATS. See id. at 15586 n.749. For example, the Commission is basing some of the below estimates on the assumption that operators of Newly Designated ATSs that are affiliated with existing broker-dealers would structure their operations so that the existing broker-dealer would operate the ATS to avoid the costs of new broker-dealer registration. In addition, the Commission estimates that 2 Newly Designated ATSs that trade municipal securities or corporate debt securities would meet the volume thresholds to satisfy the conditions for complying with ATS-specific systems capacity, integrity and security recordkeeping as well as systems outages requirements. This number is based on aggregate data reported by broker-dealers and could vary based on how these systems structure their businesses.

crypto asset securities,[176] and (2) 20-26 Newly Designated ATSs (revised from the 22 Newly Designated ATSs estimated in the Proposing Release),[177] which has been revised to reflect New Rule 3b-16(a) Systems for non-crypto asset securities that have exited, entered, or intend to enter, the market since the Commission issued the Proposing Release. For the purposes of this PRA analysis, the Commission is analyzing the burdens for an estimated 46 Newly Designated ATSs, based on the high end of these ranges.[178] Some or all of this total number will be subject to the following collections of information[179] as estimated below:[180]

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176 The Commission received several comments stating that the PRA analysis in the Proposing Release underestimated or did not include systems that trade crypto asset securities. See, e.g., Bloomberg Letter II at 2-3; Coin Center Letter at 25; Coinbase Letter at 6; Crypto Council Letter at 4-7. One commenter states that the Commission did not include approximately 288 crypto "exchanges," 200 crypto AMMs, and 9 front-end platforms that offer liquidity aggregation and (smart) order routing functionality. See Bloomberg Letter II at 2-3. It is not clear from the comment letter whether these systems operate in the U.S., use non-firm trading interest, and provide non-discretionary protocols to bring together buyers and sellers to negotiate, and thus would be New Rule 3b-16(a) Systems and subject to the new burdens analyzed under the PRA. In addition, the Commission preliminarily believes that some amount of crypto asset securities trade on New Rule 3b-16(a) Systems. See supra note 31. These systems could be some or many of the systems the commenter references. However, without additional information, the Commission is unable to assess whether the systems referenced by the commenter would meet existing Rule 3b-16(a), or Rule 3b-16(a), as proposed to be revised. In addition, some commenters estimate that hundreds or thousands of persons could be captured by the proposed rule change. See supra note 60. See also SIFMA Letter II at 8-9 (stating that "[t]he broad concept of communication protocol systems could theoretically capture hundreds, if not thousands, of systems across asset classes" and there is a disconnect with the Commission's estimate that 22 systems would be affected by the Proposed Rules). As discussed above, systems would constitute a single exchange and be responsible for compliance as a single entity. See supra section II.B.

177 The original 22 Newly Designated ATSs the Commission estimated in the Proposing Release may include ATSs that trade crypto asset securities.

178 In the Proposing Release, the Commission certified that the proposed amendments to Regulation ATS would not, if adopted, have a significant economic impact on a substantial number of small entities pursuant to section 3(a) of the Regulatory Flexibility Act of 1980 (5 U.S.C. 603(a)). See Proposing Release at 15645. The Commission did not receive any comment regarding its certification. Although the Commission is now revising its estimate of the number of respondents that would be subject to the proposed rules, the Commission continues to certify that the proposed amendments would not, if adopted, have a significant economic impact on a substantial number of small entities. As in the Proposing Release, the Commission encourages written comments regarding this certification.

179 The estimates presented here relate only to those collections of information for which the burdens will change as a result of increasing the estimated total number of Newly Designated ATSs. For the complete estimated burden associated with the proposed amendments, the estimates here for Newly Designated ATSs should be considered together with those originally included in the Proposing Release for Communication Protocol Systems, see Proposing Release at section VII, with any burden identified by the identical combination of Collection of Information and rule number replaced and superseded by that contained here.

180 The estimated respondents for the Rule 304/Form ATS-N collection of information is based on the assumption that systems that operate multiple market places that are affiliated with a new or existing

Collection of Information	Rule	Number of Respondents	Description
Rule 301 of Regulation ATS and Forms ATS and ATS-R	17 CFR 242.301(b)(2) ("Rule 301(b)(2)")	37	The Commission estimates that certain Newly Designated ATSs that trade securities other than NMS stocks or government securities or repos, including crypto asset securities, would be required to file the proposed modernized Form ATS.
	Rule 301(b)(5)	10	The Commission estimates that certain Newly Designated ATSs would meet the volume thresholds in government securities, NMS stocks, corporate debt securities, municipal securities, equity securities that are not NMS stocks and for which transactions are reported to an SRO and be subject to the Fair Access Rule.
	17 CFR 242.301(b)(9) ("Rule 301(b)(9)")	46	The Commission estimates that all Newly Designated ATSs will need to comply with the requirement to file quarterly reports on the proposed modernized Form ATS-R.
	17 CFR 242.301(b)(10) ("Rule 301(b)(10)")	46	The Commission estimates that all Newly Designated ATSs will need to comply with the requirement to have written safeguards and written procedures to protect subscribers' confidential trading information.
Rule 302 of Regulation ATS	17 CFR 242.302 ("Rule 302")	46	The Commission estimates that all Newly Designated ATSs will need to comply with the recordkeeping requirements for ATSs.
Rule 303 of Regulation ATS	17 CFR 242.303 ("Rule 303")	46	The Commission estimates that all Newly Designated ATSs will need to comply with the record

broker-dealer will all be operated by such broker-dealer, and that such systems will not register multiple broker-dealers to operate multiple affiliated ATSs.

Collection of Information	Rule	Number of Respondents	Description
			preservation requirements for ATSs.
Rule 304 of Regulation ATS	17 CFR 242.304 ("Rule 304")	9	The Commission estimates that certain Communication Protocol Systems that trade NMS stocks or government securities or repos would be required to file Form ATS-N, as proposed to be revised.
Rule 15b1-1 and Form BD	17 CFR 240.15b1-1 ("Rule 15b1-1")	27	The Commission estimates that certain Newly Designated ATSs are not currently registered as or affiliated with a broker-dealer and will need to register using Form BD. This would include all Newly Designated ATSs that trade crypto asset securities that do not currently file a Form ATS.
Form ID	17 CFR 232.101 ("Rule 101 of Regulation S-T")	27	The Commission estimates that the same subset of Newly Designated ATSs that are not currently registered as or affiliated with a broker-dealer will also need to file Form ID to apply for EDGAR access.

B. Total PRA Burdens

The Commission continues to assume that, under the proposed amendments, Newly Designated ATSs will choose to register as broker-dealers and comply with the conditions of Regulation ATS, rather than register as a national securities exchange,[181] and the estimates below reflect this assumption.

1. Burden of Rule 301 of Regulation ATS and Forms ATS and ATS-R

a. Rule 301(b)(2) Burden on Newly Designated ATSs

[181] See Proposing Release at 15618 n.1056 and accompanying text.

As discussed in the Proposing Release, the Commission estimates that each Newly Designated ATS would incur an initial burden of 20.5 hours[182] and an annual burden of 5 hours[183] for complying with Rule 301(b)(2). In light of the revision of the Commission's estimate of Newly Designated ATSs, the Commission estimates the following total initial and annual burdens:

Burden Type	Respondent Type	Number of Respondents	Burden per Respondent	Total Burden (Number of Respondents × Burden per Respondent)
Initial	Newly Designated ATSs	37	20.5 hours	758.5 hours
Annual			5 hours	185 hours

b. Rule 301(b)(5) Burden on Newly Designated ATSs

As discussed in the Proposing Release, the Commission estimates an annual compliance burden of 37 hours per respondent for Rule 301(b)(5).[184] In light of the revision of the

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182 The Commission's currently approved baseline for the average initial compliance burden for each initial operation report ("IOR") on Form ATS is 20 hours (Attorney at 13 hours + Compliance Clerk at 7 hours). See Extension Without Change of a Currently Approved Collection: Regulation ATS Rule 301 Amendments; ICR Reference No. 202101-3235-011; OMB Control No. 3235-0509 (June 9, 2018), available at https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=202101-3235-011 ("Rule 301 PRA Supporting Statement"). The Commission proposed amendments to Part I of Form ATS, which would add an additional burden of 0.5 hours per filing using the modernized form (Compliance Clerk at 0.5 hours), and therefore the average compliance burden for each Form ATS filing would be 20.5 hours. See Proposing Release at section V.B and section VII.E (discussing proposed changes).

183 The Commission's currently approved baseline for the average ongoing compliance burden for each amendment to a Form ATS IOR is 4 hours ((Attorney at 1.5 hours + Compliance Clerk at 0.5 hours) × 2 IOR amendments a year). See Rule 301 PRA Supporting Statement. The Commission proposed amendments to Part I of Form ATS, including a requirement applicable to an ATS filing an IOR amendment to attach as Exhibit 3 a marked document to indicate changes to "yes" or "no" answers and additions or deletions from any Item in Part I, Part II, and Part III, which would add an additional annual burden of 1 hour per ATS using the modernized form (Compliance Clerk at 0.5 hours × 2 IOR amendments a year). Therefore the average compliance burden for each Form ATS filing would be 5 hours. See Proposing Release at section V.B and section VII.E (discussing proposed changes).

184 The Commission's currently approved baseline for the average compliance burden per respondent is 37 hours = 10 hours for Fair Access standards recordkeeping (Attorney at 5 hours × 2 responses a year) + 27 hours for Fair Access notices (Attorney at 1 hour × 27 responses a year). See Proposing Release at section VII.D.1.b.

Commission's estimate of Newly Designated ATSs, the Commission estimates the following total annual burdens:

Respondent Type	Number of Respondents	Annual Burden per Respondent	Total Annual Burden (Number of Respondents × Annual Burden per Respondent)
Newly Designated ATSs	10	37 hours	370 hours

c. Rule 301(b)(6) Burden on Newly Designated ATSs

The Commission estimates that none of the Newly Designated ATSs trading crypto asset securities or that have entered or intend to enter the market since the Commission issued the Proposing Release would meet the applicable volume requirements and be subject to the requirements of 17 CFR 242.301(b)(6) ("Rule 301(b)(6)"), and therefore, the estimates in the Proposing Release remain unchanged.

d. Rule 301(b)(9) Burden on All Respondents

As discussed in the Proposing Release, the Commission estimates an annual compliance burden of 19 hours per new Form ATS-R respondent[185] and 3 hours per existing Form ATS-R respondent.[186] In light of the revision of the Commission's estimate of Newly Designated ATSs, the Commission estimates the following total annual burdens:

Respondent Type	Number of Respondents	Annual Burden per Respondent	Total Annual Burden (Number of Respondents × Annual Burden per Respondent)
Newly Designated ATSs	46	19 hours	874 hours

185 The annual burden per Newly Designated ATS would be 4.75 hours × 4 quarterly filings annually = 19 burden hours. See Proposing Release at 15590 n.770.

186 The annual burden per existing Form ATS-R respondent would be 0.75 hours × 4 quarterly filings annually = 3 burden hours. See id. at 15590 n.771.

e. Rule 301(b)(10) Burden on Newly Designated ATSs

As discussed in the Proposing Release, the Commission estimates an initial burden of 8 hours[187] and an annual burden of 4 hours[188] per respondent for complying with Rule 301(b)(10). In light of the revision of the Commission's estimate of Newly Designated ATSs, the Commission estimates the following total initial and annual burdens:

Burden Type	Respondent Type	Number of Respondents	Burden per Respondent	Total Burden (Number of Respondents × Burden per Respondent)
Initial	Newly Designated ATSs	46	8 hours	368 hours
Annual			4 hours	184 hours

2. Burden of Rules 302 and 303 of Regulation ATS on Newly Designated ATSs

As discussed in the Proposing Release, the Commission estimates an annual burden of 45 hours per respondent to comply with Rule 302[189] and 15 hours to comply with Rule 303.[190] In light of the revision of the Commission's estimate of Newly Designated ATSs, the Commission estimates the following total annual burdens:

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187 The Commission's currently approved baseline for the average initial compliance burden is 8 hours (Attorney at 7 hours + Compliance Clerk at 1 hour). See Rule 301 PRA Supporting Statement.

188 The Commission's currently approved baseline for the average ongoing compliance burden is 4 hours (Attorney at 2 hours + Compliance Clerk at 2 hours). See id.

189 The Commission's currently approved baseline for the average compliance burden is 45 hours (Compliance Clerk at 45 hours). See Extension Without Change of a Currently Approved Collection: Rule 302 (17 CFR 242.302) Recordkeeping Requirements for Alternative Trading Systems; ICR Reference No. 201906-3235-011; OMB Control No. 3235-0510 (Oct. 24, 2019), available at https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201906-3235-011. There is no initial burden associated with this rule.

190 The Commission's currently approved baseline for the average compliance burden is 15 hours (Compliance Clerk at 15 hours). See Extension Without Change of a Currently Approved Collection: Rule 303 (17 CFR 242.303) Record Preservation Requirements for Alternative Trading Systems; ICR Reference No. 202101-3235-010; OMB Control No. 3235-0505 (June 25, 2021), available at https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=202101-3235-010. There is no initial burden associated with this rule.

Rule	Respondent Type	Number of Respondents	Annual Burden per Respondent	Total Annual Burden (Number of Respondents × Annual Burden per Respondent)
Rule 302	Newly Designated ATSs	46	45 hours	2,070 hours
Rule 303			15 hours	690 hours

3. Burden of Rule 304 of Regulation ATS and Form ATS-N on Newly Designated ATSs

As discussed in the Proposing Release, the Commission estimates an initial compliance burden of 136.4 hours per new Form ATS-N respondent[191] and an annual burden of 47 hours.[192] In light of the revision of the Commission's estimate of Newly Designated ATSs, the Commission estimates the following total annual burdens:

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191 The Commission's currently approved baseline for the average initial compliance burden for each initial Form ATS-N is 130.4 hours (currently approved baseline burden to complete an initial Form ATS at 20 hours: Attorney at 13 hours and Compliance Clerk at 7 hours; see Proposing Release at 15588 n.759) + (Part I at 0.5 hour) + (Part II at an average of 29 hours) + (Part III at an average of 78.75 hours) + (Access to EDGAR at 0.15 hours) + (Posting link to published Form ATS-N on ATS website at 2 hours) = 130.4 burden hours. See Extension Without Change of a Currently Approved Collection: Regulation ATS Rule 304 and Form ATS-N; ICR Reference No. 202109- 3235-014; OMB Control No. 3235-0763 (January 3, 2022), available at https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=202109-3235-014 ("Rule 304 PRA Supporting Statement"). The aggregate totals by professional, including the baseline, are estimated to be approximately 54.6 hours for an Attorney, 0.5 hours for a Chief Compliance Manager, 34.55 hours for a Compliance Manager, 32.25 hours for a Senior Systems Analyst, 1 hour for a Senior Marketing Manager, and 7.5 hours for a Compliance Clerk. The Commission estimates that the proposed amendments to Form ATS-N would add an additional burden of 6 hours per filing (Attorney at 2.5 hours, Compliance Manager at 1.5 hours, Senior Systems Analyst at 1.5 hours, and Compliance Clerk at 0.5 hours), and therefore the average compliance burden for each new Form ATS-N filer would be 136.4 hours. See Proposing Release at section V.B and section VII.E (discussing proposed changes).

192 The currently approved baseline for filing amendments to Form ATS-N is 47 hours ((Attorney at 5.5 hours + Compliance Manager at 2 hours + Compliance Clerk at 1.9 hours) × 5 amendments a year). See Rule 304 PRA Supporting Statement.

Burden Type	Respondent Type	Number of Respondents	Burden per Respondent	Total Burden (Number of Respondents × Burden per Respondent, rounded to nearest 0.5 hours)
Initial	Newly Designated ATSs	9	136.4 hours	1,227.5 hours
Annual			47 hours	423 hours

4. Burden of Rule 15b1-1 and Form BD on Newly Designated ATSs

As discussed in the Proposing Release, the Commission estimates an initial burden of 2.75 hours[193] and an annual burden of 1 hour[194] per respondent for completing Form BD. In light of the revision of the Commission's estimate of Newly Designated ATSs, the Commission estimates the following total initial and annual burdens:

Burden Type	Respondent Type	Number of Respondents	Burden per Respondent	Total Burden (Number of Respondents × Burden per Respondent, rounded to nearest 0.5 hours)
Initial	Newly Designated ATSs	27	2.75 hours	74 hours
Annual			0.95 hours	25.5 hours

5. Burden of Form ID on Newly Designated ATSs

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193 The Commission's currently approved baseline for the average initial compliance burden for each Form BD is 2.75 hours (Compliance Manager at 2.75 hours). See Extension Without Change of a Currently Approved Collection: Form BD and Rule 15b1-1. Application for registration as a broker-dealer; ICR Reference No. 201905-3235-016; OMB Control No. 3235-0012 (Aug. 7, 2019), available at https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201905-3235-016. ("Form BD PRA Supporting Statement").

194 The Commission's currently approved baseline for the average ongoing compliance burden for each respondent amending Form BD is 0.95 hours (Compliance Manager at 0.33 hours × 2.87 amendments per year). See Form BD PRA Supporting Statement.

As discussed in the Proposing Release, the Commission estimates, with regards to Rule 101 of Regulation S-T, an initial burden of 0.15 hours[195] and no annual burden per respondent for completing Form ID. In light of the revision of the Commission's estimate of Newly Designated ATSs, the Commission estimates the following total burdens:

Respondent Type	**Number of Respondents**	**Initial Burden per Respondent**	**Total Initial Burden (Number of Respondents × Initial Burden per Respondent, rounded to nearest 0.5 hours)**
Newly Designated ATSs	27	0.15 hours	4 hours

6. Burden of Regulation SCI on Newly Designated ATSs

The Commission does not estimate any Newly Designated ATSs that trade crypto asset securities or that have exited, entered, or intend to enter the market since the Commission issued the Proposing Release will be subject to Regulation SCI,[196] and therefore, the estimates in the Proposing Release remain unchanged.

C. Request for Comments

Pursuant to 44 U.S.C. 3506(c)(2)(B), the Commission solicits comments to:

39. Evaluate whether the proposed collection of information is necessary for the proper performance of the Commission's functions, including whether the information shall have practical utility;

40. Evaluate the accuracy of the Commission's estimates of the burden of the proposed collection of information;

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195 See Revision of a Currently Approved Collection: Form ID - EDGAR Password; ICR Reference No. 202104-3235-022; OMB Control No. 3235-0328 (Apr. 29, 2021), available at https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=202104-3235-022.

196 "Regulation SCI" consists of 17 CFR 242.1000 through 242.1007.

41. Determine whether there are ways to enhance the quality, utility, and clarity of the information to be collected;

42. Evaluate whether there are ways to minimize the burden of collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology; and

43. Evaluate whether the proposed amendments would have any effects on any other collection of information not previously identified in this section.

Persons submitting comments on the collection of information requirements should direct them to the Office of Management and Budget, Attention: Desk Officer for the Securities and Exchange Commission, Office of Information and Regulatory Affairs, Washington, DC 20503, and should also send a copy of their comments to Vanessa Countryman, Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090, with reference to File Number S7-02-22. Requests for materials submitted to Office of Management and Budget ("OMB") by the Commission with regard to this collection of information should be in writing, with reference to File Number S7-02-22 and be submitted to the Securities and Exchange Commission, Office of FOIA/PA Services, 100 F Street NE, Washington, DC 20549-2736. As OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication, a comment to OMB is best assured of having its full effect if OMB receives it within 30 days of publication.

V. Economic Analysis

A. Introduction

The Commission received comments on the Proposing Release stating that the Commission had not considered the economic effects of the Proposed Rules on New Rule 3b-16(a) Systems that trade crypto asset securities.[197] In this section the Commission is

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[197] See GDCA Letter II at 4, 5, and 6; Crypto Council Letter at 2, 3, 4, and 5; McHenry/Huizenga Letter at 2; LeXpunK Letter at 3; ADAM Letter II at 13 and 14; Chamber Letter at 4; Coinbase Letter at 2 and 6; a16z Letter at 2, 3, 7, 20 and 21; Blockchain Association Letter II at 1 and 7; DeFi Education Fund Letter at 3.

supplementing the economic analysis provided in the Proposing Release with additional analysis that considers the impact of the Proposed Rules on New Rule 3b-16(a) Systems that trade crypto asset securities.[198]

The Commission preliminarily believes that some amount of crypto asset securities trade on New Rule 3b-16(a) Systems. These New Rule 3b-16(a) Systems do not meet the current definition of an exchange and thus are not subject to regulation either as a national securities exchange or an ATS. By amending Exchange Act Rule 3b-16 to include New Rule 3b-16(a) Systems within the definition of exchange, the Proposed Rules would functionally apply Regulation ATS to an additional number of entities not currently regulated by it. This would have a number of benefits, including enhanced regulatory oversight and protection for investors, a reduction in trading costs and improvement in execution quality, and enhancement of price discovery and liquidity.

The Proposed Rules would also have costs for those entities subject to new requirements, including compliance costs associated with filing forms such as Form ATS-N or Form ATS, protecting confidential information, keeping certain records, registering as a broker-dealer, and complying with the Fair Access Rule and/or Regulation SCI if applicable.

For purposes of measuring the effects of the proposed rule on participants in crypto asset securities markets, this analysis assumes that market participants are compliant with existing applicable Commission and FINRA rules, including those requiring registration and the rules and regulations applicable to such registered entities. To the extent that some entities engaged in activities involving crypto asset securities are not, but should be, FINRA or Commission registered entities, they may incur additional costs to comply with existing rules and registration

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198 Exchange Act section 3(f) requires the Commission, when it is engaged in rulemaking pursuant to the Exchange Act and is required to consider or determine whether an action is necessary or appropriate in the public interest, to consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation. See 15 U.S.C. 78c(f). In addition, Exchange Act section 23(a)(2) requires the Commission, when making rules pursuant to the Exchange Act, to consider among other matters the impact that any such rule would have on competition and not to adopt any rule that would impose a burden on competition that is not necessary or appropriate in furtherance of the purposes of the Exchange Act. See 15 U.S.C. 78w(a)(2).

obligations that are distinct from the costs associated with the Proposed Rules and are not discussed in this analysis. Similarly, any benefits from coming into compliance with existing rules and registration obligations are also not discussed in this analysis, and effects on efficiency, competition, and capital formation may differ from the discussion in this analysis to the extent impacted entities do not comply with existing applicable Commission or FINRA rules. For such entities, we expect the benefits and costs specifically associated with the Proposed Rules to be the same as those described below as applicable.

B. Baseline

1. Current State of Crypto Asset Markets

The global market for crypto assets is valued by some estimates at approximately $900 billion,[199] as of December 2022. Volatility in the price of crypto assets has caused this number to fluctuate considerably over the past few years. For example, in July of 2020 the market was estimated to be worth approximately $276 billion, but went on to reach a peak value of approximately $3 trillion by November 2021.[200] A subset of these crypto assets are securities with associated activity within the U.S.[201]

The Commission has limited information regarding crypto asset securities.[202] This limitation is, in part, due to the fact that only a small portion of crypto asset security trading

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199 See, e.g., Global Cryptocurrency Market Cap Charts, CoinGecko, available at https://www.coingecko.com/en/global-charts (last visited on Mar. 15, 2023).

200 Id.

201 The Commission is aware that some amount of activity in the market for crypto assets discussed in this Reopening Release is conducted outside the U.S. Due to unique challenges in analyzing the crypto asset market, the Commission faces obstacles to obtaining reliable, comprehensive, and comparable information to determine, in this rulemaking, the extent of the activities taking place within the U.S. For example, while the issuance of a crypto asset on a blockchain can be detected by observers of the blockchain, the national or international scope of the activities involving this asset is not always readily apparent. Furthermore, many of the platforms on which crypto assets are traded do not provide publicly available information that could be used to inform the determination about the scope of their operations. This is due, in part, to the significant amount of trading in crypto asset securities that may be occurring in non-compliance with the federal securities laws. See also supra note 26 (discussing crypto assets that are securities).

202 See, e.g., FSOC Report, supra note 30 ("The crypto-asset ecosystem is characterized by opacity that creates challenges for the assessment of financial stability risks."); Crypto-Assets Treasury Report, supra note 75, at 12 (finding that data pertaining to "off-chain activity" is limited and subject to voluntary disclosure by

activity is occurring within entities that are registered with the Commission and any of the SROs, or operating pursuant to the Regulation ATS exemption.[203] For example, there are currently no special purpose broker-dealers authorized to maintain custody of crypto asset securities.[204] This information limitation is also, in part, due to the significant trading activity in crypto asset securities that may be occurring in non-compliance with the federal securities laws.[205]

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trading platforms and protocols, with protocols either not complying with or not subject to obligations "to report accurate trade information periodically to regulators or to ensure the quality, consistency, and reliability of their public trade data"); Fin. Stability Bd., Assessment of Risks to Financial Stability from Crypto-assets 18-19 (Feb. 16, 2022) ("FSB Report"), available at https://www.fsb.org/wp-content/uploads/P160222.pdf (finding that the difficulty in aggregating and analyzing available data in the crypto asset space "limits the amount of insight that can be gained with regard to the [crypto asset] market structure and functioning," including who the market participants are and where the market's holdings are concentrated, which, among other things, limits regulators' ability to inform policy and supervision); Raphael Auer et al., Banking in the Shadow of Bitcoin? The Institutional Adoption of Cryptocurrencies 4, 9 (Bank for Int'l Settlements, Working Paper No. 1013, May 2022), available at https://www.bis.org/publ/work1013.pdf (stating that data gaps, which can be caused by limited disclosure requirements, risk undermining the ability for holistic oversight and regulation of cryptocurrencies); Int'l Monetary Fund, The Crypto Ecosystem and Financial Stability Challenges, in Global Financial Stability Report 41, 47 (Oct. 2021), available at https://www.imf.org/-/media/Files/Publications/GFSR/2021/October/English/ch2.ashx (finding that crypto asset service providers provide limited, fragmented, and, in some cases, unreliable data, as the information is provided voluntarily without standardization and, in some cases, with an incentive to manipulate the data provided).

203 For a description of the requirements of the Regulation ATS exemption, see Proposing Release at section II.E.2.

204 For background on 17 CFR 240.15c3-3 ("Rule 15c3-3"), as it relates to crypto asset securities, see U.S. Sec. & Exch. Comm'n, Joint Staff Statement on Broker-Dealer Custody of Digital Asset Securities (July 8, 2019) ("Joint Staff Statement on Broker-Dealer Custody of Digital Asset Securities"), available at https://www.sec.gov/news/public-statement/joint-staff-statement-broker-dealer-custody-digital-asset-securities; Fin. Indus. Regul. Auth., SEC Staff No-Action Letter, ATS Role in the Settlement of Digital Asset Security Trades (Sept. 25, 2020), available at https://www.sec.gov/divisions/marketreg/mr-noaction/2020/finra-ats-role-in-settlement-of-digital-asset-security-trades-09252020.pdf. Staff reports, Investor Bulletins, and other staff documents (including those cited herein) represent the views of Commission staff and are not a rule, regulation, or statement of the Commission. The Commission has neither approved nor disapproved the content of these staff documents and, like all staff statements, they have no legal force or effect, do not alter or amend applicable law, and create no new or additional obligations for any person. The Commission issued a statement describing its position that, for a period of five years, special purpose broker-dealers operating under the circumstances set forth in the statement 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 crypto asset securities for purposes of Rule 15c3-3(b)(1) under the Exchange Act. See Commission Statement on Custody of Digital Asset Securities by Special Purpose Broker-Dealers. To date, no such special purpose broker-dealer registration applications have been granted by FINRA.

205 See also FSOC Report, supra note 30, at 5, 87, 94, 97 (emphasizing the importance of the existing financial regulatory structure while stating that certain digital asset platforms may be listing securities while not in compliance with exchange, broker-dealer, or other registration requirements, which may impose additional risk on banks and investors and result in "serious consumer and investor protection issues"); Crypto-Assets Treasury Report, supra note 49, at 26, 29, 39, 40 (stating that issuers and platforms in the digital asset ecosystem may be acting in non-compliance with statutes and regulations governing traditional capital markets, with market participants that actively dispute the application of existing laws and regulations, creating risks to investors from non-compliance with, in particular, extensive disclosure requirements and market conduct standards); FSB Report, supra note 202, at 4, 8, 18 (stating that some trading activity in

Because of this limited information, and because, as the Commission understands, the trading of crypto asset securities utilizes different technology and methods of operation than is utilized in markets for non-crypto asset securities, the Commission has a greater degree of uncertainty in characterizing the baseline for the crypto asset market than it does in characterizing the baseline for non-crypto asset securities.

It is impossible to determine the true market turnover[206] for crypto assets, because, among other reasons, the crypto asset market reportedly is characterized[207] by rampant wash trading.[208] The Commission does possess data on reported trades from many crypto asset platforms, but there is no reliable way to determine whether trades reported are actually between two different market participants or are the result of wash trading. Estimates of how much of the total crypto asset market volume is attributable to wash trades vary but range as high as 95%.[209] The Commission believes that with such pervasive wash trading, any reported volume figures are significantly misleading.

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crypto assets may be failing to comply with applicable laws and regulations, while failing to provide basic investor protections due to their operation outside of or in non-compliance with regulatory frameworks, thereby failing to provide the "market integrity, investor protection or transparency seen in appropriately regulated and supervised financial markets").

206 That is, the amount of crypto assets that actually change hands between distinct market participants.

207 See, e.g., Lin William Cong, Xi Li, Ke Tang & Yang Yang, Crypto Wash Trading (Nat'l Bureau of Econ. Rsch., Working Paper No. 30783, Dec. 2022), available at https://www.nber.org/papers/w30783, Andrew Singer, Cleaning Up Crypto Exchange Wash Trading Will Take Global Regulation, Cointelegraph (July 29, 2020), available at https://cointelegraph.com/news/cleaning-up-crypto-exchange-wash-trading-will-take-global-regulation (according to Gerald Chee, head of research at CoinMarketCap.com, "there is no way to tell if an exchange is inflating volume or not by merely looking at the volume they report" because "[t]he only way to detect 'wash trades' would require access to 'account-ID' data" and "only exchanges have access to these [data]"); see also, e.g., Friedhelm Victor & Andrea Marie Weintraud, Detecting and Quantifying Wash Trading on Decentralized Cryptocurrency Exchanges (Working Paper, Feb. 13, 2021), available at https://arxiv.org/pdf/2102.07001.pdf.

208 The term wash trading refers to the practice of creating misleading trade reports and delivering such reports to the public, usually to deceive market participants into believing volume in a particular instrument is higher than it actually is. This is often arranged by trading against one's own limit orders, or buy swapping the instrument back and forth with a collaborator.

209 See, e.g., Bitwise Asset Management, Presentation to the Securities and Exchange Commission (Mar. 19, 2019), available at https://www.sec.gov/comments/sr-nysearca-2019-01/srnysearca201901-5164833-183434.pdf (stating that only 4.5% of approximately $6 billion of reported trading in Bitcoin was real). See also Javier Paz, More Than Half of All Bitcoin Trades are Fake, Forbes (Aug. 26, 2022), available at https://www.forbes.com/sites/javierpaz/2022/08/26/more-than-half-of-all-bitcoin-trades-are-fake/?sh=471e51be6681.

Because such wash trading renders volume data unusable, the Commission is also unable to determine the share of trading that takes place on various types of platforms; or the amount of concentration in volume among various exchanges, including whether a given exchange has any legitimate volume at all.

It is likewise impractical to determine market turnover of crypto assets using data on transfer of crypto assets between wallets that is available via public blockchains. The Commission preliminarily believes that a direct analysis of blockchain data would be unable to reliably determine how many crypto assets are actually moving between different entities. Among other complications, the Commission understands that it is a common practice for a single entity participating in crypto asset trading to control multiple wallets and to move funds between those wallets. There may be no way of determining that movement between such wallets represents the exchange of crypto assets between distinct entities. Additionally, because transactions on the blockchain can be costly and slow, the Commission understands crypto assets to sometimes trade and settle off-chain, with only changes between public addresses eventually appended to the blockchain. Thus, even if one could determine changes in ownership from transfers on the blockchain, that might not reflect all changes of ownership that occur on off-chain platforms.

a. Platforms in the Market for Crypto Assets

The Commission is unable to reliably determine the amount of trading in crypto assets that takes place through platforms, or to quantify their share of the market for trading services in crypto assets. This is due to the wash trading problem in the crypto asset market discussed

above.[210] The Commission is also unable to reliably determine the number of platforms operating in the crypto asset market.[211]

Some platforms may operate through the use of smart contracts.[212] A smart contract may be designed to accept and integrate changes to its functionality, or it may be immutable.[213] Different designs are used to control changes to a smart contract's functionality, including designs that enable only very specific entities to submit changes to the smart contract, as well as designs where a number of market participants receive tokens theoretically enabling them to vote on whether a change proposed by a developer is integrated or not.[214] The Commission understands that these tokens, or other tokens, may also entitle their holders to additional benefits, which may include a claim on some portion of the transaction fees paid to the smart contract.

i. Operations of Platforms

The Commission understands that some platforms for crypto assets operate limit order books to facilitate trading among their customers. Some operators of platforms also operate an

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210 See supra section V.B.1. The difficulties in computing volume is also due in part to the significant amount of trading in crypto asset securities that may be occurring in non-compliance with federal securities laws. See supra section V.B.1.

211 While the Commission is uncertain about the total number of platforms, some existing estimates of this number are over 200 for certain kinds of platforms, and over 250 for other kinds of platforms. See, e.g., Top Cryptocurrency Spot Exchanges, CoinMarketCap, available at https://coinmarketcap.com/rankings/exchanges/, Top Cryptocurrency Decentralized Exchanges, CoinMarketCap, available at https://coinmarketcap.com/rankings/exchanges/dex/; see also Bloomberg Letter II at 3; see supra section V.B.1. discussing difficulties in determining the size and scope of the crypto asset market generally, including issues related to foreign activity and non-compliance. See infra section V.B.1.c (where the Commission has provided a rough estimate of the number of Communication Protocol Systems in the market for crypto asset securities).

212 See supra note 15. Smart contracts generally can be appended to a blockchain capable of running such programs by anyone with the ability to submit transactions to it. The Commission understands that not all blockchains are initially designed with the intention of enabling smart contract functionality.

213 By "immutable," the Commission means that the smart contract cannot be changed through the processes that are part of the typical functioning of a blockchain. The miners or validators of the blockchain, by deviating from such processes, can make alterations to the blockchain that alter interactions with "immutable" smart contracts. See infra section V.C.2.c.i for related discussion.

214 Such tokens are sometimes referred to as governance tokens.

affiliated so-called over-the-counter system or an RFQ system.[215] Colocation options are possible at some platforms.[216]

The Commission preliminarily believes that platforms can be a source of pricing information for the crypto assets that trade on those platforms. Pricing information from off-chain platforms is sometimes supplied to blockchains to serve as a reference price for various entities using smart contracts in their systems.[217]

Some entities run limit order books on the blockchain, by utilizing smart contracts that accept limit orders, display them, and match limit orders with market orders. In a system using a limit order book where all activity takes place on-chain, traders must pay for blockchain transactions for each message they wish to send to the limit order book, in addition to any fees the limit order book may charge. This can increase the sources of transaction cost relative to a platform that does not run its limit order book on-chain. Some entities with an on-chain component to their system may run their limit order books in whole or in part off-chain, with only final transactions being posted to the blockchain. This may help both reduce total fees paid by users and issues of latency in updating on-chain records.

An AMM is designed as an alternative to a limit order book.[218] An AMM typically offers liquidity by exchanging one crypto asset for another,[219] with the exchange rate typically set

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215 See Elias Ahonen, What Really Goes on at a Crypto OTC Desk?, Cointelegraph (May 16, 2022), available at https://cointelegraph.com/magazine/explained-what-really-crypto-otc-desk/.

216 See Anna Baydakova, High-Frequency Trading is Newest Battleground in Crypto Exchange Race, CoinDesk (July 8, 2019), available at https://www.coindesk.com/markets/2019/07/08/high-frequency-trading-is-newest-battleground-in-crypto-exchange-race/.

217 See, e.g., Andrei Anisimov & Luke Youngblood, Introducing the Coinbase Price Oracle, Coinbase (Apr. 23, 2020), available at https://www.coinbase.com/blog/introducing-the-coinbase-price-oracle. See also infra section V.B.1.a for further discussion of using price information from centralized platforms in DeFi settings.

218 AMMs typically make use of smart contracts to enable their functionality, and as a consequence may run on-chain to a significant degree.

219 The inventory held by an AMM for providing liquidity is typically called a pool. A single AMM protocol will typically have many pools, one for each combination of crypto asset trades offered. For example, for crypto assets A, B, and C, a single AMM protocol might have a pool that offers to trade A for B and vice versa, another pool that offers to trade B for C and vice versa, and a third pool that offers to trade A for C and vice versa. Some AMMs can have pools with more than two assets that permit trades in combinations of the assets in the pool. For example, a pool might contain A, B, and C, and permit trades such as exchanging A and B for C.

according to a pre-specified formula. In some cases, this formula is set only by a mathematical function of the inventory the AMM possesses of each crypto asset in the pair,[220] while in other cases the AMM may incorporate information from an off-chain platform to help inform the exchange rate. The inventory that an AMM uses to fill orders is typically supplied by market participants, and the details of the smart contract may specify compensation for supplying inventory (e.g., by dividing up transaction fees among the inventory suppliers). In some cases, the AMM may permit the inventory suppliers to restrict the use of their liquidity to pre-specified price ranges.

The Commission understands that while some platforms provide markets that enable the trading of crypto assets for dollars or other fiat currency, platforms for crypto assets typically offer markets in trading pairs as well. This means that, for example, an order on a limit order book may offer to buy or sell units of a base asset in exchange for a quote asset with the price expressed in units of the quote asset.[221] In addition, some platforms focus on facilitating trades where the transaction takes place entirely "on-chain." In this case, the platform is unable to facilitate crypto asset markets using fiat currency. Instead, such systems can only facilitate trading in crypto asset pairs.

The Commission understands that the majority of platforms typically require crypto assets and fiat currency to be provided to the platform in advance of any trading activity. This requirement can help ensure the successful completion of trades.

A variety of market participants use platforms to trade crypto assets. The Commission understands that retail investors are significant users of platforms.[222] The Commission also

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220 In the case where the AMM offers pools with more than two assets, the formula may be based on the amount of each asset held in the pool.

221 See supra section II.A for additional discussion of pairs trading.

222 See, e.g., Michel Rauchs, Apolline Blandin, Kristina Klein, Gina Pieters, Martino Recanatini & Bryan Zhang, 2nd Global Cryptoasset Benchmarking Study (Dec. 2018), available at https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2019-09-ccaf-2nd-global-cryptoasset-benchmarking.pdf, showing that globally, retail investors are 70% of "exchange-only" crypto business users and 78% of "multi-segment" crypto businesses. See also 2022 10-K, Coinbase (Feb. 21, 2023),

understands that some platforms may also be used to fill the orders of institutional investors, and may have market makers participating as well.

The Commission understands that the speed of processing on some platforms may be faster when compared to transfers on some blockchains or systems that involve blockchain processing as part of functionality,[223] both of which are reliant on blockchain transactions to function. The Commission understands that there is often a queue of transactions waiting to be appended to a blockchain, and transactions being sent to a trading platform running on that blockchain may have to wait in that queue to be processed.

Trading using systems that involve sending information to a blockchain[224] as a means of interacting with the system may expose the market participant to information leakage of a kind that is not present on platforms or New Rule 3b-16(a) Systems that do not require interacting through a blockchain. The Commission understands that messages to be appended to a blockchain often end up in queue that is publicly viewable, which then exposes the market participant to information leakage.

Furthermore, when trading on a system that runs some of its functionality on-chain, there is a risk of unexpected or undesired execution results. Specifically, a market participant may send an order to a blockchain intending to interact with the on-chain portion of the system based on market conditions which will be altered by other transactions that are already queued but not yet processed.[225]

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available at https://www.sec.gov/Archives/edgar/data/1679788/000167978823000031/coin-20221231.htm showing that for one centralized platform, retail investors accounted for approximately 20% of trading volume in 2022.

223 See infra section V.B.1.c.

224 For example, sending a transaction to an AMM running on-chain.

225 The Commission understands that some platforms which have this risk permit transaction messages to set limits to help mitigate the risk of unexpected execution results. Although the problem of messages already en route or queued for processing causing unexpected changes to a trading platform for other users is a problem on off-chain platforms as well, the Commission understands that the problem may be more severe on platforms which require interaction through a blockchain because the longer processing times can lead to larger queues.

Some ATSs, which have an active Form ATS on file with the Commission, specify in their Form ATS disclosures that they trade or intend to trade crypto asset securities.

ii. Regulatory Baseline

The provider of a platform that meets the current criteria of Rule 3b-16 of the Exchange Act is required to register as a national securities exchange or operate pursuant to the Regulation ATS exemption, which involves registering as a broker-dealer and complying with Regulation ATS.[226] The regulatory requirements and the associated compliance costs for platforms that trade crypto asset securities vary according to whether they are regulated as a national securities exchange or ATS.

A platform that trades crypto asset securities could choose to register as a national securities exchange pursuant to sections 5 and 6 of the Exchange Act.[227] The compliance costs associated with being a national securities exchange are generally significantly higher than those of being an ATS. In contrast to an ATS, a national securities exchange, as an SRO, incurs compliance costs associated with, among other things, setting standards of conduct for its members, administering examinations for compliance with these standards, coordinating with other SROs with respect to the dissemination of consolidated market data, and generally taking responsibility for enforcing its own rules and the provisions of the Exchange Act and the rules and regulations thereunder. Furthermore, under section 19(b) of the Exchange Act, a national

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226 See supra section V.B.1.a.i, discussing ATSs that trade or intend to trade crypto asset securities. There are no registered national securities exchanges which trade crypto asset securities. See supra section V.B.1.

227 Pursuant to section 6 of the Exchange Act, national securities exchanges must establish rules that generally: (1) are designed to prevent fraud and manipulation, promote just and equitable principles of trade, and protect investors and the public interest; (2) provide for the equitable allocation of reasonable fees; (3) do not permit unfair discrimination; (4) do not impose any unnecessary or inappropriate burden on competition; and (5) with limited exceptions, allow any broker-dealer to become a member. Section 6(b) of the Exchange Act requires, among other things, that the national securities exchange be so organized and have the capacity to carry out the purposes of the Exchange Act and to comply and enforce compliance by its members, and persons associated with its members, with the federal securities laws and the rules of the exchange. See section 6(b) of the Exchange Act.

securities exchange incurs compliance costs by filing any proposed changes to its rules with the Commission, which the Commission has the authority to approve or disapprove.[228]

A platform that meets the current definition of an exchange and operates pursuant to the ATS exemption must comply with Regulation ATS, and incurs costs related to compliance with these requirements. To operate under the exemption, an ATS must register as a broker-dealer[229] and comply with the filing and conduct obligations associated with being a registered broker-dealer, including membership in an SRO, such as FINRA,[230] and compliance with the SRO's rules.[231] Upon becoming a broker-dealer, the operator of an ATS is subject to certain broker-dealer requirements with respect to maintaining net capital, reporting, and recordkeeping.[232] An ATS is subject to Commission examinations and FINRA examinations and surveillance, trade reporting obligations, and certain investor protection rules.[233] An ATS is required to establish adequate written safeguards and written procedures[234] to protect subscribers' confidential trading information.[235] Furthermore, an ATS is subject to certain reporting and disclosure requirements, as applicable. Under Rule 301(b)(2) of Regulation ATS, an ATS that does not trade NMS stocks

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228 See generally section 19(b) of the Exchange Act.

229 The broker-dealer operator controls all aspects of the operation of the ATS and is legally responsible for ensuring that the ATS complies with applicable federal securities laws and the rules and regulations thereunder, including Regulation ATS. See NMS Stock ATS Adopting Release at text accompanying note 663.

230 See section 15(b)(8) of the Exchange Act.

231 See Regulation ATS Adopting Release, supra note 3, at 70903.

232 Registered broker-dealers would be subject to requirements under certain Exchange Act rules, such as Rule 15c3-1, Rule 17a-1, Rule 17a-3, Rule 17a-4, and Rule 17a-5.

233 Under the federal securities laws and FINRA rules, registered broker-dealers (e.g., broker-dealer operators of ATSs) are subject to, among other things: (1) various disclosure and supervision obligations; (2) anti-money laundering obligations (including suspicious activity reporting); (3) FINRA OTC trade reporting requirements, including requirements to maintain membership in, or maintain an effective clearing arrangement with a participant of, a clearing agency registered under the Exchange Act; and (4) Commission examinations and FINRA examinations and surveillance of members and markets that its members operate.

234 These written safeguards and written procedures must include, among other things: limiting access to the confidential trading information of subscribers to those employees of the ATS who are operating the system or responsible for its compliance with these or any other applicable rules; and implementing standards controlling employees of the ATS trading for their own accounts.

235 See 17 CFR 242.301(b)(10); NMS Stock ATS Adopting Release, supra note 7, section VI.

must file Form ATS.[236] An ATS must file quarterly Form ATS-R to report to the Commission, among other things, trading volume, securities traded, and a list of subscribers that were participants during the relevant quarter.[237] An ATS is subject to recordkeeping and record preservation requirements under Rules 302 and 303 of Regulation ATS, respectively.

In addition, an ATS that trades in crypto asset securities that are corporate debt securities, and meets certain volume thresholds, is required to comply with the Fair Access Rule and Rule 301(b)(6) of Regulation ATS. The requirements of Rule 301(b)(6) are similar to, but with less benefits and with significantly less costs than, the requirements of Regulation SCI.[238] Such an ATS must be a member of FINRA, and would accordingly be required to report to the Trade Reporting and Compliance Engine (TRACE) transactions in corporate bonds.[239]

An ATS that trades crypto asset securities that are municipal securities is similarly required to comply with the Fair Access Rule and with Rule 301(b)(6) of Regulation ATS if it meets certain volume thresholds. Additionally, the broker-dealer operator of such an ATS must register with the Municipal Securities Rulemaking Board (MSRB) and accordingly is required to report municipal bond trades to the MSRB's Real-Time Transaction Reporting System (RTRS).[240]

A platform that operates as an NMS Stock ATS and trades in crypto asset securities that are NMS stocks is required to file public Form ATS-N. Such an ATS must comply with the requirements of Regulation SCI and the Fair Access Rule if it meets the corresponding volume

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236 Under Rule 304 of Regulation ATS, NMS Stock ATSs are required to file public Form ATS-N (instead of filing Form ATS), which is subject to a Commission review and effectiveness process.

237 See Rule 301(b)(9); Form ATS-R.

238 The scope and requirements of Rule 301(b)(6) are narrower than those of Regulation SCI. For example, Rule 301(b)(6) of Regulation ATS applies to a narrower set of systems, as compared to Regulation SCI. Rule 301(b)(6) of Regulation ATS applies only to systems that support order entry, order routing, order execution, transaction reporting, and trade comparison, which is narrower than the definition of SCI system. Also, Rule 301(b)(6) does not require ATSs to maintain a backup facility, whereas Regulation SCI includes such a requirement.

239 See Proposing Release at 15604 n.871 and accompanying text.

240 See id. at 15608.

thresholds. Additionally, because trades in NMS stocks that are transacted off-exchange must be reported to one of three FINRA Trade Reporting Facilities, such an NMS Stock ATS would have the reporting obligation in most cases where it handles the execution of the trade. Such an ATS that receives or originates orders in Eligible Securities[241] is required to report any Reportable Event[242] to the Consolidated Audit Trail.

A platform that is an ATS and trades in crypto asset equity securities that are not NMS stocks is required to comply with Regulation SCI and the Fair Access Rule if it meets certain volume thresholds, be a member of FINRA, and comply with associated reporting obligations.

AMMs[243] that meet the definition of a dealer or government securities dealer under sections 3(a)(5) and 3(a)(44) of the Exchange Act are subject to the requirements applicable to dealers under federal securities laws and FINRA rules.[244] These AMMs would incur compliance costs associated with broker-dealer requirements discussed in section V.B.1.a.ii.

Regulated platforms do not offer trading in non-cash markets for crypto assets in which one of the assets is a security and the other one is not a security.[245]

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241 The CAT NMS Plan is a national market system plan approved by the Commission pursuant to Section 11A of the Exchange Act and the rules and regulations thereunder. See Securities Exchange Act Release No. 79318 (Nov. 15, 2016), 81 FR 84696 (Nov. 23, 2016). The CAT NMS Plan and subsequent amendments to the Plan are available at https://catnmsplan.com/about-cat/cat-nms-plan. Section 1.1 of the CAT NMS Plan defines Eligible Securities as "(a) all NMS Securities; and (b) all OTC Equity Securities," where OTC Equity Securities are defined as any equity security, other than an NMS Security, subject to prompt last sale reporting rules of a registered national securities association and reported to one of such association's equity trade reporting facilities." This includes both OTC Equity Securities and transactions in Restricted Equity Securities effected pursuant to Securities Act Rule 144A.

242 According to Section 1.1 of the CAT NMS Plan, "Reportable Event" includes, but is not limited to, the original receipt or origination, modification, cancellation, routing, execution (in whole or in part) and allocation of an order, and receipt of a routed order. See CAT NMS Plan, supra note 241.

243 Some AMMs may operate as single dealer platforms. A single dealer platform that meets the requirement of existing Exchange Act Rule 3b-16(b)(2) and Rule 3b-16(b)(2) as proposed to be amended, would be excluded from the Exchange Act Rule 3b-16(a) and thus not fall within the definition of exchange. In addition, the proposed amendments to Rule 3b-16 do not change the registration obligations of a person that meets the definition of a dealer or government securities dealer under sections 3(a)(5) and 3(a)(44) of the Exchange Act.

244 The Commission encourages commenters to review the Commission's proposal, "Further Definition of "As a Part of a Regular Business" in the Definition of Dealer and Government Securities Dealer," Securities Exchange Act Release No. 94524 (Mar. 28, 2022), 87 FR 23054 (Apr. 18, 2022) to determine whether it might affect their comments on this Reopening Release.

245 There is a significant amount of trading in crypto asset securities that may be occurring in non-compliance with federal securities laws. See supra section V.B.1.

b. New Rule 3b-16(a) Systems in the Market for Crypto Assets Securities

The Commission understands that some amount of trading in crypto asset securities is facilitated through New Rule 3b-16(a) Systems.[246] The Commission lacks information on the entities involved providing New Rule 3b-16(a) Systems in the market for crypto asset securities, and consequently, is uncertain as to the precise number of such entities. Nevertheless, the Commission is providing a rough estimate that there are 15-20 New Rule 3b-16(a) Systems trading crypto asset securities.[247] The Commission requests comment on the number of New Rule 3b-16(a) Systems in the market for crypto asset securities. The Commission lacks data on the share of trades in crypto asset securities that are conducted in this way, and requests comment on this issue.

The Commission is uncertain as to the range of specific communication protocols used for trading crypto assets.[248] The Commission requests comment on the types of protocols used in trading crypto assets.

Some entities provide New Rule 3b-16(a) Systems that may run part of the system on-chain (for example, by using smart contracts). A New Rule 3b-16(a) System that utilizes such technology may possess some of the same features as other systems using that technology described in section V.B.1.a.

The Commission understands that when running a New Rule 3b-16(a) System that involves on-chain technology, the actual negotiation portion of the system (e.g. the RFQ

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246 See supra section V.B.1. Additionally, one commenter states that the proposed amendments to the definition of exchange, specifically the phrasing "to include systems that offer the use of non-firm trading interest and communication protocols to bring together buyers and sellers of securities," could be read to encompass "unhosted protocols," which the Commission understands to refer to DeFi platforms. See Delphi Digital Letter at 11; see also LeXpunK Letter at 3.

247 The Commission received comments stating that we had not included an estimate of the number of crypto asset security market participants that would be included in the amended definition of exchange. See GDCA Letter II at 6, Delphi Digital Letter at 11, McHenry/Huizenga Letter at 2.

248 In the Proposing Release, the Commission discussed common kinds of protocols and their economic significance in their respective markets, see, e.g., Proposing Release sections VIII.B.1, VIII.B.2.b, VIII.B.3.b, VIII.B.4.b, VIII.B.5.d, VIII.B.6.b, and VIII.B.7.

functions) may be run "off-chain," that is, without using the blockchain for computation and communication. Once negotiation is finished, the transaction may then be completed using blockchain-based systems.

It is also possible that some New Rule 3b-16(a) Systems may be run entirely on-chain. For example, there may be smart contracts that enable the sending of RFQs, responses to the RFQ, and finalizing of transactions all through communicating with a set of smart contracts by sending messages to the blockchain.

The Commission preliminarily believes that New Rule 3b-16(a) Systems with on-chain components to their system generally facilitate trades that are not cash-based. That is, the trades exchange one crypto asset security for another crypto asset. The Commission preliminarily believes that it is possible that New Rule 3b-16(a) Systems that do not use any on-chain elements in their systems may also facilitate trades that are non-cash based.

New Rule 3b-16(a) Systems do not meet the current definition of exchange under Rule 3b-16, and therefore are not currently required to register as national securities exchanges or comply with Regulation ATS.[249]

c. Other Methods of Trading in Crypto Assets

Market participants may transact in crypto assets via bilateral voice trading or electronic chat messaging.[250] The Commission understands that such interactions may be with a market maker in crypto assets, or with some other market participant. Such methods of trading permit negotiation on price and size. The Commission lacks information on current crypto asset market practice, and requests comment on this issue.

Bilateral voice trading may provide flexibility to traders and reduce information leakage. For these reasons, the Commission preliminarily believes it may be a useful method for trading

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249 See supra section V.B.1.a.ii describing the rules of Regulation ATS, as well as rules applicable to national securities exchanges.

250 See supra section V.B.1.

crypto assets in large blocks. The Commission requests comment on the role of bilateral voice trading in the market for crypto assets.

d. Competition for Crypto Asset Trading Services

The various platforms available for trading crypto assets, as well as New Rule 3b-16(a) Systems, compete to attract order flow. The Commission preliminarily believes that market participants seeking liquidity in crypto assets may prefer either one particular platform or method of crypto asset trading or multiple platforms or methods. A single order may be split and filled using the different methods. It is also possible that some methods may be used more than others in certain segments of market participants.

Because New Rule 3b-16(a) Systems are not currently subject to the same regulation as organizations, associations, or groups of persons that meet the existing definition of "exchange" under Rule 3b-16, they often trade pairs, which can include a combination of securities and non-securities. This may give New Rule 3b-16(a) Systems a competitive advantage over platforms that currently meet regulatory requirements for exchanges.

Some of the methods for trading crypto asset securities involve platforms that are currently subject to regulation as an ATS or national securities exchange.[251] New Rule 3b-16(a) Systems, in contrast, are not subject to such regulation. This may have an impact on competition for order flow between these two groups of platforms. For example, platforms that are ATSs or national securities exchanges may offer the benefits of investor protections associated with these regulations to customers in ways that New Rule 3b-16(a) Systems do not. It is also the case that the compliance costs for such regulations may burden current ATSs and national securities exchanges in a way that disadvantages them in competing with New Rule 3b-16(a) Systems.

C. Economic Effects

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[251] See supra section V.B.1.a discussing such platforms and the regulations to which they are subjected. Also, see supra section V.B.1.a.i, discussing ATSs that trade or intend to trade crypto asset securities. Today, there are no registered national securities exchanges that trade crypto asset securities. See supra section V.B.1.

The Commission discussed the economic effects of the Proposed Rules on general activity involving securities in the Proposing Release. In this section, the Commission discusses the economic effects of the Proposed Rules on activity involving crypto asset securities.

The Commission is relying on the analysis in the Proposing Release to form the basis for its discussion of the effects of the Proposed Rules for systems trading crypto asset securities.[252] This is because the Commission believes that New Rule 3b-16(a) Systems that trade crypto asset securities are broadly similar in their functions to functions of other New Rule 3b-16(a) Systems. The following sections include discussion of the extent to which we believe these effects may deviate from those discussed in the Proposing Release for the market for crypto asset securities. Throughout the discussion in this Reopening Release, the Commission has a greater degree of uncertainty in its analysis of the costs that the Proposed Rules would impose on market participants for crypto asset securities than it did in its discussion of costs for non-crypto asset securities. This is because the Commission has less data on the functioning of the market for crypto asset securities.[253]

As discussed in the Proposing Release,[254] a New Rule 3b-16(a) System could choose to register as an exchange rather than choose to comply with the Regulation ATS exemption. The Commission believes that New Rule 3b-16(a) Systems that trade crypto asset securities would likely elect to register as a broker-dealer and comply with Regulation ATS because the regulatory costs associated with registering and operating as an exchange would be higher than those associated with registering as a broker-dealer and complying with Regulation ATS.[255]

One commenter agrees with the Commission that any entity captured as a New Rule 3b-16(a) System "would likely prefer to be regulated as an ATS as opposed to an exchange."[256]

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252 See id.

253 See supra section V.B.1.

254 See Proposing Release at 15618.

255 See id. at 15586.

256 See LeXpunK Letter at 14.

1. Benefits

The Commission believes that the benefits detailed in the Proposing Release[257] would accrue in broadly the same manner to market participants who trade in crypto asset securities as they would to market participants who trade in the securities discussed in the Proposing Release. This is because the Commission believes that New Rule 3b-16(a) Systems that trade crypto asset securities are broadly similar in their functions to functions of other New Rule 3b-16(a) Systems. However, throughout the discussion in this Reopening Release, the Commission has a greater degree of uncertainty in its analysis of the benefits that the Proposed Rules would provide to market participants in the market for crypto asset securities than it did in its discussion of benefits for non-crypto asset securities. This is because the Commission has less data on the functioning of the market for crypto asset securities.[258]

Certain benefits discussed in the Proposing Release apply only to certain asset classes: the Commission believes that if any current or future crypto asset security falls into one of those classes, then those benefits would likely apply to the participants in the market for that crypto asset security as well.

a. Enhancement of Regulatory Oversight and Investor Protection

As discussed fully in the Proposing Release, the Proposed Rules would enhance regulatory oversight and investor protection by extending the requirements related, among other things, to broker-dealer registration, transaction reporting, safeguarding subscribers' confidential trading information, recordkeeping and reporting under Regulation ATS, providing certain information on Form ATS-R to the Commission, and filing public Form ATS-N , to New Rule 3b-16(a) Systems trading in securities of the applicable asset classes.[259] Of these benefits, some

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257 See id. at 15618.

258 See supra section V.B.1.

259 See id. at 15618-19. See also supra note 181 and accompanying text (explaining that the Commission continues to assume that, under the Proposed Rules, Newly Designated ATSs will choose to register as broker-dealers and comply with the conditions of Regulation ATS, rather than register as national securities exchanges, and therefore the costs analyzed here assume that such systems will not register as national securities exchanges).

are associated with rules that apply to all securities, and the rest are associated with rules that apply only to securities of specific asset classes. The Commission believes that benefits associated with rules that apply to all securities would accrue to market participants trading crypto asset securities in a manner similar to the description in the Proposing Release, and to a similar extent. The Commission additionally believes that benefits associated with rules applying only to specific asset classes would accrue to market participants trading crypto asset securities of the appropriate asset type, again in a similar manner and to a similar extent as that described in the Proposing Release.

b. Reduction of Trading Costs and Improvements to Execution Quality

As discussed fully in the Proposing Release, the Proposed Rules would help enhance operational transparency, reduce trading costs, and improve execution quality for market participants by requiring public disclosure of Form ATS-N and applying the Fair Access Rule to certain ATSs.[260] The Commission believes that benefits associated with these rules would accrue to market participants trading crypto asset securities of the appropriate asset class, in the same manner and to the same extent discussed in the Proposing Release. However, because some New Rule 3b-16(a) Systems involve systems which run with an on-chain component,[261] and therefore may operate using code that is, at least in part, publicly viewable, it is possible that the benefit of Form ATS-N disclosures may be reduced for such systems. However, because this code is not disclosed in a standardized or human-readable form, the Commission believes that this reduction of impact may not be significant.

c. Enhancement of Price Discovery and Liquidity

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260 See id. at 15620-21.

261 For example, the system may be run in part by smart contracts deployed on a blockchain. See supra section V.B.1.a for additional discussion of such systems.

As discussed fully in the Proposing Release, the Proposed Rules would help enhance the price discovery process and liquidity in securities markets by applying broker-dealer registration requirements of Regulation ATS, Regulation SCI, and the Capacity, Integrity, and Security Rule (i.e., Rule 301(b)(6) of Regulation ATS) to certain New Rule 3b-16(a) Systems.[262] The Commission believes that benefits associated with these rules would accrue to market participants trading crypto asset securities of the appropriate asset class, in the same manner and to the same extent discussed in the Proposing Release.

d. Electronic Filing Requirements

As discussed fully in the Proposing Release, the Proposed Rules would benefit market participants by improving the usability, accessibility, and reliability of the new disclosures, by requiring a structured data language and a publicly accessible filing location for the applicable required disclosures.[263] Of these benefits, some are associated with rules that apply to all securities, and the rest are associated with rules that apply only to securities of specific asset classes. The Commission believes that benefits associated with rules that apply to all securities would accrue to market participants trading crypto asset securities in a manner similar to the description in the Proposing Release, and to a similar extent. The Commission additionally believes that benefits associated with rules applying only to specific asset classes would accrue to market participants trading crypto asset securities of the appropriate asset class, again in the same manner and to the same extent discussed in the Proposing Release.

However, because some New Rule 3b-16(a) Systems involve systems which run with an on-chain component,[264] and therefore may operate using code that is, at least in part, publicly viewable, it is possible that the benefit of Form ATS-N disclosures may be reduced for such

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262 See id. at 15621-22.

263 See id. at 15623.

264 For example, the system may be run in part by smart contracts deployed on a blockchain. See supra section V.B.1.a for additional discussion of such systems.

systems. However, because this code is not disclosed in a standardized or human-readable form, the Commission believes that this reduction of impact may not be significant.

2. Costs

The Commission received comments on the Proposing Release stating that the Commission had not considered the costs of the Proposed Rules to New Rule 3b-16(a) Systems that trade crypto asset securities.[265] In this section the Commission is supplementing the analysis of costs provided in the Proposing Release with additional analysis that details the extent and manner in which the costs discussed in the Proposing Release would apply to New Rule 3b-16(a) Systems that trade crypto asset securities.

The Commission is relying on the analysis in the Proposing Release to form the basis for its discussion of the costs of Proposed Rules for systems trading crypto asset securities.[266] This is because the Commission believes that the functioning of New Rule 3b-16(a) Systems that trade crypto asset securities are broadly similar to the functioning of other New Rule 3b-16(a) Systems discussed in the Proposing Release. The Commission preliminarily believes that in some cases the costs of compliance may be higher for New Rule 3b-16(a) Systems in the market for crypto asset securities than for other New Rule 3b-16(a) Systems. This is because in some cases the market for crypto asset securities utilizes different technology and methods of operation[267] than is utilized in markets for non-crypto asset securities. In addition, throughout the discussion in this Reopening Release, the Commission has a greater degree of uncertainty in its analysis of the costs that the Proposed Rules would impose on market participants than it did in its discussion of costs for non-crypto asset securities. This is because the Commission has less data on the functioning of the market for crypto asset securities.[268]

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265 See GDCA Letter II at 6; Crypto Council Letter at 4; McHenry/Huizenga Letter at 2; Coinbase Letter at 2; a16z Letter at 7.

266 See id.

267 Such different technology may include, for example, smart contracts.

268 See supra section V.B.1.

In addition, the Commission has received comments stating that entities that trade crypto asset securities may incur different compliance costs than entities that trade traditional securities. One commenter states that the analysis provided in the Proposing Release were based only on "traditional broker-dealer business," adding that they were not aware of any broker-dealers that had successfully registered under the Commission's framework for registering "digital-asset-only broker-dealers."[269] There are also costs that are unique to New Rule 3b-16(a) Systems that trade crypto asset securities. These costs are also the result of the use of different technology and methods of operation in some instances. These costs are discussed in the sections below as applicable. The Commission invites comment on the costs of the Proposed Rules for market participants in the market for crypto asset securities.

a. Compliance Costs

Table V.1 provides estimates for the aggregate compliance costs for New Rule 3b-16(a) Systems that trade crypto asset securities. These aggregate costs reflect an estimate of 20 additional affected New Rule 3b-16(a) Systems that were not included in the estimates provided in the Proposing Release, which is the upper end of the Commission's estimate of the number of affected systems. The Commission is uncertain as to how precise these estimates are because we lack sufficient data on crypto asset securities.[270]

In both Table V.1 and the following subsections, the Commission is relying on the analysis in the Proposing Release to form the basis for its discussion of costs. The Commission preliminarily believes that actual costs may be higher than these estimates and discussions express, due to the type of technology and operations utilized in trading crypto asset securities. Because it lacks certain data, the Commission is unable to provide an estimate as to how much higher costs may be, but preliminarily believes that these estimates and discussions provide a useful lower bound.

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269 See ADAM Letter II at 14.

270 See supra section V.B.1.

Table V.1: Total Implementation Costs and Other Compliance Costs Affecting Entities that Trade Crypto Asset Securities Not Included in the Proposing Release

Rule	Compliance Action	Aggregate Initial Costs	Aggregate Ongoing Costs
Reg ATS, 301(b)(1)	Form BD filing	$18,000[a]	$6,000[d]
	Form ID filing	$1,000[b]	-
	Other compliance costs (non-PRA based)	$6,320,000[c]	$1,154,000[e]
Reg ATS, 301(b)(2)	Form ATS filing	$128,000[f]	$30,000[g]
Reg ATS, 301(b)(9)	Form ATS-R filing	-	$130,000[h]
Reg ATS, 301(b)(10)	Written safeguards and procedures to protect subscribers' confidential trading information	$64,000[i]	$20,000[j]
Reg ATS, 302	Recordkeeping	-	$68,000[k]
Reg ATS, 303	Record preservation	-	$2,000[l]
Total		**$6,531,000**	**$1,410,000**

[a] This cost figure is obtained by summing the initial implementation costs of Rule 301(b)(1)'s Form BD filing requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[b] This cost figure is obtained by summing the initial implementation costs of Rule 301(b)(1)'s Form ID filing requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[c] This cost figure is obtained by summing the other initial implementation costs (non-PRA based) associated with Rule 301(b)(1) for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[d] This cost figure is obtained by summing the ongoing implementation costs of Rule 301(b)(1)'s Form BD filing requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[e] This cost figure is obtained by summing the other ongoing implementation costs (non-PRA based) for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[f] This cost figure is obtained by summing the initial implementation costs of Rule 301(b)(2)'s Form ATS filing requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[g] This cost figure is obtained by summing the ongoing implementation costs of Rule 301(b)(2)'s Form ATS filing requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[h] This cost figure is obtained by summing the ongoing implementation costs of Rule 301(b)(9)'s Form ATS-R filing requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[i] This cost figure is obtained by summing the initial implementation costs of Rule 301(b)(10)'s requirement for written safeguards and procedures to protect subscribers' confidential trading information, for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[j] This cost figure is obtained by summing the ongoing implementation costs of Rule 301(b)(10)'s requirement for written safeguards and procedures to protect subscribers' confidential trading information, for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[k] This cost figure is obtained by summing the ongoing implementation costs of Rule 302's recordkeeping requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

[l] This cost figure is obtained by summing the ongoing implementation costs of Rule 303's record preservation requirement for 20 New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release. See Proposing Release at Table VIII.8.

Commenters express concern that the Proposed Rules would include certain crypto asset security entities that the Commission had not considered, which would increase costs beyond what was estimated in the Proposing Release due to the increase in the number of affected entities.[271] The Commission is now including a rough estimate that the Proposed Rules would include 15-20 New Rule 3b-16(a) Systems that trade crypto securities that were not included in the Proposing Release,[272] along with the associated costs.

One commenter expresses concern that "persons who may merely write open-source 'communications protocol' code or publish information about the contents of communications systems which they do not control" would be included by the amended definition of exchange.[273] Another commenter expresses similar concerns that "DeFi developers" would be included by the amended definition of exchange.[274] Another commenter expresses similar concerns that "persons who 'make available' AMMs or interfaces for utilizing AMMs may now be required by the SEC to register those AMMs as ATSs or securities exchanges."[275] Another commenter expresses concern that the definition of exchange, as proposed to be amended, might "capture developers working with all manner of protocols, front end systems, and smart contracts."[276] Two commenters include smart contract code developers and publishers, blockchain miners and validators, providers of liquidity to AMMs, website maintainers, and blockchain client software developers as examples of persons they believe might be inadvertently captured by the definition

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271 See DeFi Education Fund Letter at 9, 17; Crypto Council Letter at 5; Blockchain Association Letter II at 7; LeXpunK Letter at 11; Chamber Letter at 5.

272 See supra section V.B.1.c (discussing New Rule 3b-16(a) Systems in the market for crypto asset securities, and the Commission's uncertainty regarding this estimate).

273 See Delphi Digital Letter at 6.

274 See DeFi Education Fund Letter at 3, 9.

275 See Letter from Murray B. Wells, Attorney/Partner, Wells Associates, PLLC, dated Apr. 18, 2022 ("Wells Letter") at 2.

276 See LeXpunK Letter at 13.

of exchange, as proposed to be amended.[277] Another commenter lists social networking websites, peer-to-peer messaging applications, business communication platforms, financial information systems, blockchain technology nodes, and smart contracting platforms as examples of common retail communication platforms that might be required to register as an exchange under the Proposed Rules, adding that the proposal was likely to make "everyone involved in any securities-related communications an exchange or ATS."[278] Another commenter states that "any broker-dealer or non-broker-dealer that has systems related to trading or communicating trading interest in securities" might be included by the Proposed Rules.[279] This commenter also lists validators, developers of smart contracts, and website operators as examples of entities that might be included by the Proposed Rules.[280] Another commenter states that the Proposed Rules might cause "developers of code and smart contracts related to a Decentralized Protocol, or the maintainers of online websites that merely enable access to a Decentralized Protocol" to be captured by the definition of exchange, as proposed to be amended.[281]

The Commission believes that the entities these commenters describe would only be an exchange if they constitute, maintain, or provide a market place or facility that meets the applicable criteria, and would only incur compliance costs in connection with their activities that constitute, maintain, or provide that market place or facility.

The Commission acknowledges that there may be circumstances in which the miners or validators of a blockchain could incur costs under the Proposed Rules, and the Commission solicits comment on any such costs.[282]

i. Implementation Costs

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277 See Wells Letter at 2; LeXpunK Letter at 14.

278 See DARLA, GBC, and Global DCA Letter at 7.

279 See a16z Letter at 7.

280 See id. at 14.

281 See Blockchain Association Letter II at 6.

282 See supra notes 75-80 and accompanying text, section II.B (discussing groups of persons under the definition of exchange); infra section V.C.2.c.i.

New Rule 3b-16(a) Systems that would be newly subject to the requirements of Regulation ATS would incur implementation costs associated with, among other things, written safeguards and procedures to protect subscribers' confidential trading information, recordkeeping, record preservation, and Form ATS-R.[283] The Commission estimates that there are 15-20 additional New Rule 3b-16(a) Systems not included in the Proposing Release that trade crypto asset securities.[284]

Furthermore, New Rule 3b-16(a) Systems that trade NMS stocks would incur higher implementation costs due to the heightened requirements of filing Form ATS-N compared to New Rule 3b-16(a) Systems that would file Form ATS.[285] To the extent that any crypto asset securities are NMS stocks, New Rule 3b-16(a) Systems that trade them would incur these higher costs. The Commission estimates that no[286] New Rule 3b-16(a) Systems currently trade crypto asset securities that are NMS stocks.

Current ATSs and New Rule 3b-16(a) Systems that trade neither NMS stocks nor government securities would incur implementation costs associated with re-filing or filing the modernized Form ATS. Furthermore, all New Rule 3b-16(a) Systems would incur implementation costs to file the revised electronic Form ATS-R. Current NMS Stock ATSs would incur implementation costs associated with amending revised Form ATS-N. The Commission estimates that 15-20[287] New Rule 3b-16(a) Systems currently trade crypto asset securities that are not NMS stocks that were not included in the Proposing Release, and no[288] New Rule 3b-16(a) Systems currently trade crypto asset securities that are NMS stocks. To the

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283 See id. at 15627.

284 See supra section V.B.1.c (discussing New Rule 3b-16(a) Systems in the market for crypto asset securities, and the Commission's uncertainty regarding this estimate).

285 See id.

286 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

287 See supra section V.B.1.c (discussing New Rule 3b-16(a) Systems in the market for crypto asset securities, and the Commission's uncertainty regarding this estimate).

288 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

extent that a current ATS or New Rule 3b-16(a) System trades in crypto asset securities generally or crypto asset NMS stock specifically, associated costs described in the Proposing Release would be a lower bound on costs incurred.[289]

Significant NMS Stock ATSs and ATSs that trade corporate debt securities, municipal securities, or equity securities that are not NMS stocks are subject to the Fair Access Rule. The Commission estimates that no[290] New Rule 3b-16(a) Systems that trade crypto asset corporate debt securities, municipal securities, NMS stocks, or equity securities that are not NMS stocks would be subject to the Fair Access Rule.

Significant ATSs that trade corporate debt securities or municipal securities are subject to Rule 301(b)(6). The Commission estimates that no[291] New Rule 3b-16(a) Systems currently trade corporate debt or municipal securities that are crypto asset securities and would meet the threshold of Rule 301(b)(6). To the extent that such an entity exists, the Commission believes that the implementation costs per entity presented in the Proposing Release would be a lower bound on costs incurred.[292]

In the Proposing Release, the Commission discussed estimates of initial PRA burdens for new SCI entities and ongoing PRA burdens for all SCI entities.[293] To the extent that any significant New Rule 3b-16(a) System trades in crypto asset securities that are (i) NMS stocks or (ii) equity securities that are not NMS stocks, and would therefore be subject to Regulation SCI, the Commission preliminarily believes that the PRA burdens discussed in the Proposing Release would be a lower bound on costs incurred. The Commission estimates that no[294] New Rule 3b-

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289 See id.; Table VIII.8.

290 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

291 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

292 See id.

293 See id.

294 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

16(a) Systems that trade crypto asset securities that are NMS stocks or equity securities that are not NMS stocks would meet the applicable thresholds to be subject to Regulation SCI.

As discussed in the Proposing Release,[295] the Commission believes that the fixed implementation costs associated with Rule 301(b)(9) and (10), Rule 302, and Rule 303 would represent a larger fraction of revenue for a small (measured in trading volume) ATS relative to that for a large ATS. To the extent that New Rule 3b-16(a) Systems trade crypto asset securities, and are therefore subject to these costs, the Commission expects the fixed costs to fall disproportionately on such lower-volume New Rule 3b-16(a) Systems.

As discussed in the Proposing Release,[296] the Commission believes that the fixed implementation costs of developing internal processes to ensure correct and complete reporting on Form ATS-N would represent a larger fraction of revenue for a small (measured in trading volume) ATS relative to that for a large ATS. To the extent that New Rule 3b-16(a) Systems trade crypto assets that are NMS stocks, and are therefore subject to these costs, the Commission expects the fixed costs to fall disproportionately on smaller such New Rule 3b-16(a) Systems. However, as in the Proposing Release, the Commission expects that smaller New Rule 3b-16(a) Systems that are not operated by multi-service broker-dealer operators and that generally do not engage in other brokerage or dealing activities in addition to their ATSs would likely incur lower implementation costs, because certain sections of Form ATS-N, as proposed to be amended, would not be applicable to these New Rule 3b-16(a) Systems.

The Commission also believes that the implementation costs associated with Rule 304 would vary across New Rule 3b-16(a) Systems that are NMS Stock ATSs depending on the complexity of the ATS and the services that it offers. As discussed in the Proposing Release, the Commission believes that less complex ATSs and ATSs that offer fewer services would incur lower implementation costs due to requiring fewer burden hours to complete their Forms

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295 See Proposing Release at 15628.

296 See id.

ATS-N.[297] The Commission estimates that no[298] New Rule 3b-16(a) Systems currently trade crypto assets that are NMS stocks. To the extent that any such New Rule 3b-16(a) System exists, the Commission believes that this would also be the case for such systems.

ii. Costs Associated with Broker-Dealer Requirements

Under proposed Rule 301(b)(1), New Rule 3b-16(a) Systems that are non-broker-dealers (i.e., non-broker-dealer-operated New Rule 3b-16(a) Systems) and trade crypto assets securities would be subject to broker-dealer registration requirements. Such an entity would incur costs associated with broker-dealer registration, which include costs related to registering with the Commission as broker-dealers, becoming members of an SRO, maintaining broker-dealer registration and SRO membership, and certain broker-dealer requirements with respect to maintaining net capital, reporting, and recordkeeping. The Commission estimates that roughly 15-20[299] such New Rule 3b-16(a) Systems that trade crypto asset securities not included in the Proposing Release exist. The Commission believes that the costs[300] discussed in the Proposing Release[301] for such entities would be a lower bound on the costs incurred.

Furthermore, under section 4(a)(4) of the Securities Act,[302] a broker-dealer is required to conduct a reasonable inquiry into the facts surrounding the proposed sale of a security by its customer to determine whether the sale of the security would violate section 5, such as if there is no registration statement in effect with the Commission as to the offer and sale of the security, or

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297 See id. at 15628.

298 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

299 See supra section V.B.1.c (discussing New Rule 3b-16(a) Systems in the market for crypto asset securities, and the Commission's uncertainty regarding this estimate).

300 As stated in the Proposing Release, the Commission lacks information that would allow it to provide estimates on certain restructuring related costs for a non-broker-dealer-operated Communication Protocol System that trades crypto asset securities. Likewise, the Commission is unable to estimate the costs of broker-dealer requirements with respect to maintaining net capital, reporting, and recordkeeping, as it lacks information on how affected entities might change their current business structures upon registering as a broker-dealer.

301 See Proposing Release at 15628-29.

302 See 15 U.S.C. 77d(a)(4).

there is no applicable exemption from the registration provisions available to the customer. Upon registration as a broker-dealer, an entity could face liability under section 5 of the Securities Act for facilitating sales of securities on behalf of its customers that would violate section 5. To the extent a substantial portion of this entity's business is in the sales of such securities, the Proposed Rules would result in a significant loss in revenue for the entity.

One commenter states that the Commission's estimates of compliance costs, provided in the Proposing Release, omitted the costs of joining FINRA, which is a requirement for becoming a registered broker-dealer.[303] The commenter characterizes these costs as representing "the lion's share" of the time and effort needed to become a broker-dealer. The Commission did discuss these costs in the Proposing Release,[304] and believes that the estimates provided there provide a useful characterization, notwithstanding the possibility that some costs may be higher for entities that trade crypto asset securities.[305]

The Commission believes that a New Rule 3b-16(a) System not operated by a broker-dealer would not incur compliance costs associated with registering as a broker-dealer and becoming a member of an SRO (e.g., FINRA) if it has a broker-dealer affiliate.[306] The Commission believes that this would also apply to a New Rule 3b-16(a) System that trades crypto asset securities. A broker-dealer affiliate that is adding ATS or New Rule 3b-16(a) System operations would incur additional ongoing costs associated with maintaining FINRA membership if adding trading operations increases revenue, the number of registered persons or branch offices, trading volume, or expands the scope of brokerage activities. Furthermore, a broker-dealer affiliate that is adding ATS or New Rule 3b-16(a) System operations could incur additional costs associated with maintaining adequate net capital level, reporting, and recordkeeping depending on the changes in business structure of the broker-dealer. As in the

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303 See Crypto Council Letter at 6.

304 See Proposing Release at Table VIII.8 and note 1120.

305 See supra section V.C.2.a.

306 See Proposing Release at 15629.

Proposing Release,[307] the Commission is unable to provide estimates on these additional costs; however, the Commission estimates that there are no[308] New Rule 3b-16(a) Systems not operated by a broker-dealer that are affiliated with an existing broker-dealer.

iii. Costs Associated with the Ineffectiveness Declaration

In addition to the implementation costs associated with filing and amending Form ATS-N, the Commission preliminarily believes that the proposed ability for the Commission to declare an initial Form ATS–N or Form ATS–N amendment ineffective could result in direct costs for New Rule 3b-16(a) Systems that are NMS Stock ATSs.[309] However, the Commission estimates that no[310] New Rule 3b-16(a) Systems currently trade crypto asset securities that are NMS stocks. To the extent that such a New Rule 3b-16(a) System exists, it would incur these costs. However, the Commission believes that there would not be a substantial burden imposed in connection with resubmitting an initial Form ATS-N or a Form ATS-N amendment or from an ineffective declaration in general.[311] The costs of an ineffectiveness declaration would encourage New Rule 3b-16(a) Systems trading in these crypto asset securities to initially submit a more accurate and complete Form ATS-N and amendments thereto, which would reduce the likelihood that they are declared ineffective.[312] Additionally, New Rule 3b-16(a) Systems that trade NMS stocks, including those that are crypto asset securities, would also be able to continue operations pending the Commission's review of their initial Form ATS-N. However, if after notice and opportunity for hearing, the Commission declares an initial Form ATS-N filed by

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307 See id. at 15629.

308 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

309 See id.

310 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

311 See Proposing Release at 15630 (citation omitted).

312 See id.

such a New Rule 3b-16(a) System ineffective, the ATS would be required to cease operations until an initial Form ATS-N is effective.

iv. Costs Associated with the Fair Access Rule

The Commission preliminarily believes that complying with the Fair Access Rule could result in compliance costs (non-PRA based) for New Rule 3b-16(a) Systems that trade NMS stocks (including NMS Stock ATSs that would no longer be excluded from Fair Access compliance under Rule 301(b)(5)(iii) as proposed),[313] equity securities that are not NMS stocks, corporate debt securities, or municipal securities.[314] If a New Rule 3b-16(a) System must change fee structures, order interaction procedures, trading protocols, or access provisions and adapt their operating model due to the Fair Access Rule, it would incur costs related to changing business operations.[315] To the extent that a New Rule 3b-16(a) System trades in crypto asset securities that fall into any of the above-mentioned categories, the Commission believes that it would incur costs related to these changes as described in the Proposing Release. As in the Proposing Release, the Commission lacks data that would be used to quantify the costs related to these changes. The Commission estimates that no[316] New Rule 3b-16(a) Systems currently trade crypto asset securities that are NMS stocks, equities that are not NMS Stocks, corporate debt, or municipal securities.

As discussed in the Proposing Release,[317] the Proposed Rules would aggregate volume across affiliated ATSs in calculating the fair access volume thresholds. This would mean affiliate ATSs that otherwise do not meet the relevant volume thresholds may be subject to the Fair Access Rule. As discussed above, if ATSs must adapt their operating models as a result of being subject to the Fair Access Rule, those ATSs would incur costs related to changing business

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313 Today, based on public Form ATS-N filings, no NMS Stock ATS operates pursuant to this exclusion.

314 See id.

315 See id.

316 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

317 See Proposing Release at 15630-31.

operations. The Commission estimates that no current affiliate ATS that trades NMS stocks, equity securities that are not NMS stocks, corporate debt securities, or municipal securities, that are crypto asset securities, and does not already currently meet the fair access volume thresholds would meet the thresholds if volume is aggregated across affiliated ATSs.

v. Costs Associated with Rule 301(b)(6)

As discussed in the Proposing Release,[318] in addition to the implementation costs associated with reporting outages and recordkeeping under the proposed Rule 301(b)(6), the Commission preliminarily believes that significant New Rule 3b-16(a) Systems that trade corporate debt securities or municipal securities could incur compliance costs (non-PRA based) to ensure adequate capacity, integrity, and security with respect to those systems that support order entry, order routing, order execution, transaction reporting, and trade comparison. To the extent that a New Rule 3b-16(a) System trades in crypto assets that are corporate debt securities or municipal securities, and does not currently meet the standards under the proposed rule, they would incur compliance costs as described in the Proposing Release. The Commission lacks information that would enable it to reasonably estimate these costs, but believes that the compliance costs associated with Rule 301(b)(6) would be significantly less than those of Regulation SCI.[319] Furthermore, the Commission estimates that none[320] of the New Rule 3b-16(a) Systems trading crypto asset securities would meet the applicable volume requirements and be subject to the requirements of Rule 301(b)(6).

vi. Costs Associated with Regulation SCI

New Rule 3b-16(a) Systems that meet certain volume thresholds and trade crypto asset securities that are (i) NMS stock or (ii) equity securities that are not NMS stocks, would incur compliance costs (non-PRA based costs) as SCI entities, including both initial and ongoing costs.

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318 See id. at 15631.

319 See id. at 15631 n.1138 and accompanying text.

320 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1.

The Commission believes that, to the extent that there exist New Rule 3b-16(a) Systems trading crypto asset securities that are equity securities, including NMS stocks, the costs described in the Proposing Release[321] would be a lower bound on cost incurred. The Commission estimates no[322] New Rule 3b-16(a) Systems that trade crypto asset securities would be subject to Regulation SCI.

The Commission also believes that some New Rule 3b-16(a) Systems' participants required to participate in the testing of business continuity and disaster recovery plans would incur Regulation SCI-related connectivity costs. The Commission believes that $10,000 apiece would be a lower bound on such costs.[323] However, because the Commission estimates that no New Rule 3b-16(a) Systems that trade crypto asset securities would be subject to Regulation SCI, no such participants would incur these costs.

The Commission believes that the costs to comply with Regulation SCI discussed above would also fall on third-party vendors employed by New Rule 3b-16(a) Systems to provide services used in their SCI systems.[324] To the extent that a vendor provides services to an ATS that trades crypto asset securities that are equity securities, including NMS stocks, it would incur these costs. However, because the Commission estimates that no New Rule 3b-16(a) Systems that trade crypto asset securities would be subject to Regulation SCI, no such vendors would incur these costs.

b. Indirect Costs

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321 See id.; section VIII.C.2.a.vi.

322 The Commission is uncertain as to the accuracy of this estimate because we lack sufficient data on the full set of securities traded in crypto asset markets. See supra section V.B.1. See also Securities Exchange Act Release No. 97143 (Mar. 15, 2023), available at https://www.sec.gov/rules/proposed/2023/34-97143.pdf. The Commission encourages commenters to review that Regulation SCI proposal to determine whether it might affect their comments on this Reopening Release.

323 See id.

324 See id. at 15632.

The Commission believes that the Proposed Rules could result in indirect costs for market participants and certain New Rule 3b-16(a) Systems that trade crypto asset securities.[325]

i. General Indirect Costs

In the following discussion, the Commission is relying on the analysis in the Proposing Release to form the basis for our discussion of these costs. The Commission preliminarily believes that actual costs may be higher than these discussions express, due to the technology and operations utilized in trading crypto asset securities. The Commission is unable to provide a discussion as to how much higher costs may be, but preliminarily believes that the discussions below provide a useful lower bound.

The public disclosure requirements of Form ATS-N under the proposal could generate indirect costs for some subscribers by causing New Rule 3b-16(a) Systems that trade NMS stock to stop sharing information that they might currently offer to only some subscribers.[326] Form ATS-N would require NMS Stock ATSs to publicly disclose any platform-wide order execution metrics that they share with any subscriber. To avoid publicly disclosing this information, an ATS might stop sharing the information with subscribers. The trading costs of subscribers that currently use this information to help make trading decisions would likely increase if the information is no longer available to them. To the extent that a subscriber trades using a New Rule 3b-16(a) System that trades crypto assets that are NMS stocks and receives such information, the subscriber would incur these indirect costs. As discussed in the Proposing Release, the Commission anticipates that this risk might be low due to commercial incentives that may induce ATSs to continue disclosing this information.[327]

The Commission believes that the public disclosure of Form ATS-N would generate indirect costs, in the form of transfers, for some subscribers of New Rule 3b-16(a) Systems that

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325 See infra section V.C.3 for discussions about the economic effects of the Proposed Rules specifically pertaining to competition, efficiency, and capital formation.

326 See id.

327 See id.

trade NMS stock who might currently have more information regarding some ATS features, such as order priority and matching procedures, than other subscribers.[328] The public disclosure of these features would reduce informed subscribers' information advantage over other subscribers on such New Rule 3b-16(a) Systems and increase their trading costs. In this regard, the Commission recognizes that this effect would be a transfer to those subscribers who would receive the proposed information, from those subscribers who currently exclusively receive such information. To the extent that a New Rule 3b-16(a) System trades in crypto asset securities that are NMS stocks, such transfers might occur among their subscribers.

Some New Rule 3b-16(a) Systems that trade NMS stock would experience indirect costs from the public disclosure of Form ATS-N to the extent that this form would reveal information to competitors.[329] If such a New Rule 3b-16(a) System in part relies on certain operational characteristics (e.g., order types, trading functionalities) to attract customer order flow and generate trading revenues, it is possible that the public disclosure of these characteristics in Form ATS-N would make it easier for other trading venues to adopt the operational characteristics, which would lower trading volume and reduce revenue of the disclosing New Rule 3b-16(a) System. Such costs to the disclosing entity would constitute transfers to competing ATSs rather than a net cost to the market. To the extent that a New Rule 3b-16(a) System trades any crypto assets that are NMS stocks, it might experience these transfers described in the Proposing Release. Furthermore, because some New Rule 3b-16(a) Systems involve systems which run with an on-chain component,[330] and therefore may operate using code that is, at least in part, publicly viewable, it is possible that the adverse impact of these disclosures may be reduced, for such systems. However, because this code is not disclosed in a standardized or human-readable form, the Commission believes that this reduction of impact may not be significant.

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328 See id.

329 See id.

330 For example, the system may be run in part by smart contracts deployed on a blockchain. See supra section V.B.1.a for additional discussion of such systems.

The Commission believes that the risk of these transfers is low because it is not likely the responsive information to Form ATS-N, as proposed to be amended, would include detailed enough information regarding operational facets such that the public disclosure of the information would allow another ATS to replicate the functionality to the extent it would adversely affect the competitive position of the disclosing ATS in the market.[331]

The Commission believes that New Rule 3b-16(a) Systems that trade NMS stocks (including NMS Stock ATSs that would no longer be excluded from Fair Access compliance under Rule 301(b)(5)(iii) as proposed), equity securities that are not NMS stocks, corporate debt securities, or municipal securities could indirectly experience costs in the form of lost revenue if they meet or exceed the Fair Access Rule thresholds and need to alter their business model to comply with the requirements of the Fair Access Rule.[332] To the extent that any crypto asset securities fall into these categories, the Commission believes that a New Rule 3b-16(a) System that trades in them, including NMS Stock ATSs that trade crypto asset securities that are NMS stocks and would no longer be excluded from Fair Access compliance under Rule 301(b)(5)(iii) as proposed, might incur these costs discussed in the Proposing Release.

As discussed in the Proposing Release,[333] the Commission believes that market participants could incur indirect costs related to New Rule 3b-16(a) Systems that trade NMS stocks (including NMS Stock ATSs that would no longer be excluded from Fair Access compliance under Rule 301(b)(5)(iii) as proposed), equity securities that are not NMS stocks, corporate debt securities, or municipal securities, being subject to the Fair Access Rule. To the extent that a New Rule 3b-16(a) System (including NMS Stock ATSs that would no longer be excluded from Fair Access compliance under Rule 301(b)(5)(iii) as proposed) trades in crypto assets that fall into any of the above categories of security, market participants that trade on such

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331 See id.

332 See id.

333 See Proposing Release at 15633.

platforms might experience transfer costs through the same chain of events described in the Proposing Release.

Compared to larger and more established New Rule 3b-16(a) Systems trading in crypto assets, it is possible that younger New Rule 3b-16(a) Systems rely more on providing catered services, including more advantageous access, to specific clients or a clientele, in order to grow their businesses.[334] If being subject to the Fair Access Rule prohibits these New Rule 3b-16(a) Systems from doing this, these New Rule 3b-16(a) Systems could restrict trading on their systems when they are close to meeting the volume thresholds under the Fair Access Rule.[335] As in the Proposing Release, to the extent that the market for trading services is competitive, the Commission believes this may not result in a significant increase in trading costs for market participants, because the order flow that was being sent to those New Rule 3b-16(a) Systems would likely be absorbed and redistributed amongst other New Rule 3b-16(a) Systems or other venues.[336] However, if a New Rule 3b-16(a) System that is the sole provider of a niche service limits the trading in certain securities to avoid being subject to the Fair Access Rule, it could be more difficult for some market participants to find an alternative trading venue for that niche service, which would result in a larger increase in trading costs.[337] To the extent that a New Rule 3b-16(a) System trades in crypto assets that are securities, the Commission expects these costs to apply to such a New Rule 3b-16(a) System as described in the Proposing Release.

As discussed in the Proposing Release,[338] the Proposed Rules apply certain aggregate volume thresholds to the Fair Access Rule in the markets for corporate debt and municipal securities and equity securities, which could also cause market participants to incur similar indirect costs. If the aggregate volume of ATSs operated by a common broker-dealer or operated

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334 Id.

335 Id.

336 Id.

337 Id.

338 Id.

by affiliated broker-dealers approaches the Fair Access volume thresholds, then the operators could restrict trading in one or more securities on their systems in order to avoid being subject to the requirements of the Fair Access Rule.[339] Market participants could also incur indirect costs from the Proposed Rules to apply certain aggregate volume thresholds to the Fair Access Rule if it causes a broker-dealer or affiliated broker-dealers that operate multiple ATSs to shut down one or more of their smaller ATSs in order to avoid triggering the Fair Access threshold.[340] This could cause market participants that subscribed to one of the shutdown platforms to incur search costs to find another venue to trade on.[341] To the extent that there exist crypto assets that fall into one of the above asset classes, and are traded on ATSs, the Commission believes that these indirect costs could apply as discussed in the Proposing Release.

As discussed in the Proposing Release,[342] the Commission believes that market participants could incur indirect costs related to applying Regulation SCI to New Rule 3b-16(a) Systems in the market for crypto asset equity securities and applying Rule 301(b)(6) to New Rule 3b-16(a) Systems in the market for crypto asset corporate debt securities or municipal securities. If such a New Rule 3b-16(a) System is close to satisfying the volume thresholds of Regulation SCI or Rule 301(b)(6), it could limit the trading in certain securities on its systems to stay below the volume thresholds in order to avoid being subject to Regulation SCI or Rule 301(b)(6).[343] As discussed above, the Commission believes that in general this would not necessarily lead to higher trading costs, but to the extent this occurs for a New Rule 3b-16(a) System that is the sole provider of a niche service, some market participants would incur higher trading costs.

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339 Id.

340 Id.

341 Id.

342 Id.

343 Id.

Additionally, in order to stay below the volume thresholds under Regulation SCI or Rule 301(b)(6), a New Rule 3b-16(a) System could break itself up into smaller New Rule 3b-16(a) Systems.[344] If this results in its subscribers changing their administrative and operational procedures (e.g., means of access, connectivity, order entry), the subscribers would incur costs associated with making those administrative and operational changes to utilize the ATS(s), or otherwise incur search costs to find another venue to trade.[345] To the extent that there exist crypto assets that fall into one of the applicable asset classes, and are traded on New Rule 3b-16(a) Systems, the Commission believes that these costs could apply as discussed in the Proposing Release.[346]

ii. Costs Associated with the Proposed Functional-Test-Based Exchange Definition

The proposed functional-test-based exchange definition could result in increased legal costs for market participants. Specifically, the Proposed Rules could cause market participants to engage in a more thorough and expansive compliance review of any changes in operations out of concern that a large range of activities might meet the proposed definition of exchange. This approach could also increase uncertainty about the application of the Proposed Rules, which in turn may further increase legal costs.

In addition, market participants would decrease and slow down the development of new products and technologies. Such development may depend on the ability to rapidly develop and deploy new systems. The need for more extensive compliance review, uncertainty about the application of the Proposed Rules,[347] and concerns that new systems may inadvertently meet the

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344 Id.

345 Id.

346 See id.

347 One commenter agrees with assessment. See DARLA, GBC, and Global DCA Letter at 6 (stating that the broad language in the Proposed Rules "…would likely cause chilling effects and deter further innovation and activity among early-stage technology companies due to uncertainty over which technology services would satisfy the new and expanded definition of exchange.")

definition of exchange[348] could make such a process more difficult. Market participants may come to regard some areas of new product development as inherently risky, because of the potential for regulatory costs, and decide to stop engaging in them.

One commenter states that the uncertainty caused by the expanded definition of exchange in the Proposed Rules "…is concerning and likely to stifle innovation."[349] Another commenter states that the uncertainty of exposure to enforcement actions might stifle innovation.[350] While the Commission does not believe that innovation will be impossible under the Proposed Rules, we acknowledge that there could be less innovation as a result of the uncertainty and compliance costs associated with the broad formulation of the Proposed Rules.

iii. Costs Associated with Discontinuation of Non-Security-for-Security Pairs Trading

Many crypto asset securities are not traded in exchange for fiat currencies but are instead traded for other crypto assets. To the extent that a New Rule 3b-16(a) System enables the trading of crypto asset securities for crypto assets that are not securities, that entity may also incur the cost of having to stop enabling such trades, and the resulting loss of revenue. Because pairs trading is common in crypto asset markets, this cost may be significant for some New Rule 3b-16(a) Systems. These costs may be mitigated if affected New Rule 3b-16(a) Systems are able to arrange for a fiat currency market for the relevant crypto asset security, and a separate fiat currency market in a separate entity for the non-security crypto asset, so that it can arrange for a pair of trades to take place that closely replicates the desired trade. For systems that wish to complete the transaction entirely on-chain, such arrangements are likely to be impossible, and this mitigation would therefore not apply to them.

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348 One commenter expresses such concerns, stating "[w]e have significant concern that a lack of a specific definition for such a broadly explained term will cause ongoing confusion and, as a result, increase the potential for a market participant to inadvertently run afoul of the obligations set forth in the Proposals." See Chamber Letter at 4.

349 See McHenry/Huizenga Letter at 2.

350 See LexPunK Letter at 2.

Furthermore, because existing national securities exchanges and ATSs currently do not facilitate trading between crypto asset securities and non-security crypto assets, the loss of New Rule 3b-16(a) Systems as platforms for engaging in such trades may be a significant cost for market participants in crypto asset markets. The inability to complete such trades using New Rule 3b-16(a) Systems could require market participants to switch to other means of trading, such as bilateral voice trading. To the extent such trading methods are not the market participant's preferred method, this would increase trading costs. Market participants may be able to mitigate these costs if New Rule 3b-16(a) Systems are able to provide cash markets for the relevant crypto assets, and arrange for a pair of trades that would closely replicate the desired exchange.

c. Costs for Platforms Using Certain Technologies

The Commission preliminarily believes that there may be costs associated with complying with the Proposed Rules for New Rule 3b-16(a) Systems that would perform exchange activities using certain technologies that are used in the market for crypto asset trading services.[351] The Commission is unable to provide an exact estimate or quantitative range for these compliance costs, because the Commission lacks sufficient detail about the variety of platforms whose systems use these technologies, or their options to comply. In the following subsections the Commission provides a range of compliance costs related to responsibilities for compliance, as well as a discussion of the factors associated with certain technologies that might increase the compliance costs of certain specific requirements. It is possible that operating a system that uses these technologies to perform exchange activities under the Proposed Rules in a manner that complies with applicable regulations could significantly reduce the extent to which

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[351] One commenter on the Proposing Release states that due to the "decentralized and autonomous nature of Decentralized Protocols, and the lack of an intermediary who could serve as a broker-dealer affiliate," the Proposed Rules would impose significant burdens that had not been considered. See Blockchain Association Letter II at 8. The Commission believes that the general costs described throughout section V.C.2 as applicable, and the specific costs discussed in this subsection, provide the necessary consideration of such burdens.

the system is "decentralized" or otherwise operates in a manner consistent with the principles that the crypto asset industry commonly refer to as "DeFi."

i. Initial Costs of Compliance

The Commission preliminarily believes that some New Rule 3b-16(a) Systems that trade crypto asset securities may incur greater initial costs to come into compliance, due to these systems' use of certain technologies that, for example, allow them to automate portions of their operations using smart contracts deployed on an underlying blockchain.[352] The Commission believes that there are a range of such technologies, or a range of systems' use of such technologies, that would entail differing initial costs, and has prepared a description of two scenarios that we preliminarily believe covers the range of costs likely to occur.[353] These scenarios consist of an example of a system that would likely have the lowest possible costs of compliance for a system using such technologies, and an example of a hypothetical system in which the cost of compliance is likely to be the highest possible. The Commission preliminarily believes that the initial compliance costs of the typical New Rule 3b-16(a) System that performs exchange activities using such technologies would fall in between the costs associated with these two examples. The Commission requests comment on the issue of compliance costs of New Rule 3b-16(a) Systems that operate in this manner.

At the low end of the range, the Commission preliminarily believes a New Rule 3b-16(a) System that performs exchange activities using these technologies may incur similar costs to those of a New Rule 3b-16(a) System that does not use such technologies.[354] This lower bound is based on consideration of a hypothetical system using such technologies in a way that the Commission believes would tend to present the least difficulty in complying with the Proposed

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352 These technologies include, but are not limited to, system architectures that permit RFQ systems to be run partly or wholly on-chain using smart contracts.

353 Providing an estimate corresponding to every hypothetically possible design of systems using such technologies would be impractical.

354 See supra section V.C.2.a and V.C.2.b covering these costs.

Rules. This low-cost hypothetical case consists of a New Rule 3b-16(a) System that would automate a portion of its operations using a set of smart contracts[355] that it developed and deployed itself; would have the sole right and means[356] to make alterations to the deployed smart contracts; would receive any fees charged by the smart contracts, as well as any fees collected in connection to the service through other means; and would maintain all off-chain operations that might be necessary to run the service.

In this case, the Commission believes the responsibility to bring such a New Rule 3b-16(a) System into compliance may fall to this firm and that under such circumstances, the cost of compliance would be similar to that of a New Rule 3b-16(a) System that does not automate any portion of its operations using a smart contract, as detailed in sections V.C.2.a and V.C.2.b above. In particular, any alterations that may need to be made to the smart contracts connected with the system in order to bring it into compliance with the relevant regulations could be implemented in a manner similar to alterations made to software generally, due to the firm's control over those smart contracts.

The Commission preliminarily believes that a New Rule 3b-16(a) System that performs its exchange activities in part using smart contracts, but that is not set up in the manner described above, may have significantly higher costs of compliance than the lower bound. The Commission is unable to provide a quantitative estimate of an upper bound because the Commission lacks information on the costs of the activities which may be necessary for more complex systems using such technology to come into compliance.[357] The Commission preliminarily believes that a reasonable case, in which the highest possible compliance costs would result, would be a New Rule 3b-16(a) System that performs exchange activities in part

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355 See supra section V.B.1.a discussing smart contracts for DeFi platforms and their management.

356 Possession of the sole means to make alterations to a smart contract could consist of a design in which changes may be made to the smart contract's code by using a unique private key, and where that key is in the sole possession of the firm.

357 In particular, the Commission does not have examples of systems using such technology that are registered with the Commission as an exchange or as an ATS. See supra section V.B.2.

using smart contracts, but in which control over changes to the smart contracts is given to a token-based voting mechanism, which may use governance tokens as discussed above,[358] and where the tokens are dispersed among a large number[359] of investors.

In this scenario, the Commission believes that the holders of the governance tokens, or other tokens that carry voting rights, may bear the responsibility of ensuring the compliance of the system. In such a scenario, the Commission believes that the holders of the relevant tokens could choose to form an organization or association, or to designate a member of a group of persons, which would be responsible for undertaking the activities necessary to bring the New Rule 3b-16(a) System into compliance with Regulation ATS.

The costs to produce such an organization or association, or to designate a member of a group of persons may involve the effort required on the part of the relevant token holders to coordinate and reach agreement on the design of such an organization,[360] legal expenses associated with the design and legal registration of the entity, or costs involved with designating a member of the group of persons responsible for ensuring compliance. If the relevant tokens of a smart contract entitle their holders to a share of transaction fees paid to the smart contract, or some other form of return, these expenses could be paid using such returns; otherwise, the holders of the tokens themselves may have to supply the necessary funds.

Also, because changes to the smart contracts would require a vote, the Commission preliminarily believes that the process of implementing any changes to the smart contracts that

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358 See supra note 15.

359 "Large" could mean millions of retail investors, each with some share in the vote determined by the number of tokens they hold. One prominent DeFi platform has approximately 755 million outstanding tokens, each with a share in governance votes. See Curve DAO, CoinGecko, available at https://www.coingecko.com/en/coins/curve-dao-token. The Commission understands that, while protocols may have a large number of outstanding governance tokens, control of those tokens (or their voting rights) may be held by a limited number of entities.

360 The Commission believes that this may be a difficult undertaking, given the potentially large number of individuals and entities that would have to reach agreement. Such entities may also lack the sophistication or resources required to easily navigate the process of forming such an organization or association and coming into compliance.

are required for compliance may be more costly than in the case where a single firm holds all control.

It is possible that, when it becomes necessary for the holders of relevant tokens to form an organization or association, or to designate a member of a group of persons, some of those holders might choose to sell their tokens to avoid taking on regulatory burdens, which the Commission expects would ultimately result in there being fewer holders of the governance tokens. The Commission does not have the data it would need to estimate the extent to which this would happen, but to the extent that this process significantly reduces the number of holders of a smart contract's governance tokens, the Commission expects that the costs of compliance for such a smart contract would fall between the two extremes already discussed.

The Commission believes that there is a third configuration of smart contract management which may have costs either inside the range described above or outside this range. This is the configuration entailed by a New Rule 3b-16(a) System that would automate all of its operations via smart contracts that are immutable. This immutability makes it impossible to alter the code of a smart contract using the typical processes of a public blockchain once it has been deployed, even by the entity responsible for its deployment and responsible for bringing such a system into compliance. However, the Commission understands that it is possible for the miners or validators of a smart contract's underlying blockchain to effect a change to a blockchain through, for example, a fork that would impact interactions with the immutable smart contract, and that this capacity has already been used on rare occasions.[361]

In this case, the costs would depend on the specific factual circumstances, including, among other considerations, the activities performed by persons that, for example, could fund or code changes to the blockchain, or validate or mine the transactions, or some combination

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361 See, e.g., https://spectrum.ieee.org/ethereum-blockchain-forks-to-return-stolen-funds, discussing how miners of a major public blockchain "forked" the chain to change an undesired result.

thereof.[362] It is possible that in this case costs may exceed the upper bound described above.[363] The Commission is uncertain as to the exact size of the costs that may be involved and requests comment on the issue.

In addition, the Commission preliminarily believes that in a circumstance in which only validators or miners are able to stop effectuating transactions that trigger the automated operations of a smart contract, the validators or miners may discontinue processing transactions resulting from trading interest matched by the New Rule 3b-16(a) System. In the event that validators or miners choose to discontinue processing such transactions, there may be costs to market participants associated with arranging to direct their trading interest to other venues. If instead miners or validators incur costs by choosing to continue processing transactions of such a system, the Commission preliminarily believes that they may pass on some of these costs to users, as described above.[364] It may also be the case that even if the miners or validators as a whole opt to effect a change to a blockchain or smart contracts, some miners or validators could choose to cease processing transactions of a blockchain.

The Commission is not aware of a specific example of a New Rule 3b-16(a) System which automates all of its operations by means of immutable smart contracts. However, the Commission has limited information on such systems and requests comment on this issue.

One commenter describes "practical considerations" that it believes might mean that it was "not possible" for certain systems, which they term "Decentralized Exchanges" or "DEXes," to comply with the Proposed Rules.[365] These considerations include the fact that, once launched, smart contracts "are not controlled or intermediated by any person or group of persons,"[366] and in

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362 See supra notes 75-80 and accompanying text.

363 The Commission preliminarily believes that costs may be higher for reasons that might include technical difficulties that would not be encountered when bringing a Rule 3b-16(a) System based on a mutable smart contract into compliance.

364 See supra section V.C.2.a.

365 See Coinbase Letter at 7.

366 See id. at 6.

particular, that responsibility for the system could not be attributed to the persons who created or deployed the smart contract because "once deployed, the DEX typically cannot be significantly altered or controlled by any such persons."[367]

The Commission preliminarily believes that our analysis adequately addresses these concerns. Specifically, smart contracts can be controlled after deployment, however, in some instances, the functions of miners or validators may be needed to exert such control. The discussion above provides a range of possible scenarios that have different possible costs and may result in different entities being affected, but the Commission believes that these costs are not impossible to pay.[368]

Another commenter states that the compliance burdens imposed by the Proposed Rules "may simply be insurmountable due to the incompatibility of the decentralized nature of Decentralized Protocols with the requirement for a centralized, regulated intermediary imposed by the 'exchange' definition."[369] This commenter also states that "it is unclear how [persons related to Decentralized Protocols] could achieve compliance with the relevant regulations."

The Commission acknowledges that, in the case of New Rule 3b-16(a) Systems that use the technologies discussed above to automate portions of their operations using smart contracts, validators and miners may choose to take actions to form a single entity, like an organization, and register with the Commission. The Commission preliminarily believes that our analysis, given above, adequately addresses these concerns of control over the smart contract, which entities may incur the costs of compliance, and how large those costs may be. However, the Commission acknowledges that these costs may cause some or all of the entities that make

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367 Id.

368 As discussed above, these costs may be high enough that the group of persons responsible for the exchange choose to exit the market for crypto asset security trading services rather than continue operations. See infra section V.C.3.a (discussing entry and exit as result of compliance costs).

369 See Blockchain Association Letter II at 8.

available such a system to cease the activities that make them responsible for the system's compliance, potentially resulting in the system's exit from the market.

Another commenter raises concerns about potential impossibility of limiting certain systems' activity to non-securities trading in the event that the creators of the system wish to avoid having to comply with federal securities laws, stating that it would be impossible for any "organization, group or association" to ensure no securities are made available for trading on such a system.[370]

The Commission acknowledges that there may be existing New Rule 3b-16(a) Systems, with smart contracts designed to permit anyone with access to the blockchain to begin trading in any crypto asset supported by the blockchain, including those that are securities. In such circumstances, the smart contract(s) may have to be altered in order to ensure that the system does not trade securities. As discussed above, this could be achieved either by any organization, association, or group of persons that can make changes to the smart contract, or by the miners or validators of the relevant blockchain in the event that the smart contracts are immutable.

Because of the easily accessible nature of many public blockchains, the Commission preliminarily believes that construction, deployment, and maintenance of a New Rule 3b-16(a) System that uses the technologies described above could be achieved by groups of persons who are unsophisticated participants in financial markets and may not appreciate the significance of maintaining a system that meets the definition of exchange as proposed to be amended and therefore of having obligations to comply with the relevant securities laws. The Commission believes that the costs of compliance for such persons would be higher because of their lack of experience with federal securities laws. Some such persons may choose to discontinue their systems rather than bear the costs of compliance.

ii. Unique Costs for Systems using Certain Technologies

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370 See Delphi Digital Letter at 7.

The Commission preliminarily believes that certain New Rule 3b-16(a) Systems may have difficulties in complying with some rules. The New Rule 3b-16(a) Systems which may have such difficulties are systems which use technologies that, for example, allow them to automate portions of their operations using smart contracts deployed on an underlying blockchain. The rules for which there may be such difficulties include Regulation SCI, as well as the Fair Access Rule of Regulation ATS. Systems that use these technologies may have difficulties in complying with these rules when compared with platforms that do not use such technologies. For example, there may be difficulties in ensuring the compliance of SCI systems that run using DLT, such as smart contracts.

One commenter states that the realities of decentralization make compliance "impracticable" for certain systems, which the commenter terms "DeFi."[371] This commenter questioned what entity or group of entities involved in the operation of such a system would be responsible for complying with Regulation ATS,[372] and additionally stated that even if this were clear, it was not obvious that this party would have the necessary information to fulfill that responsibility.

The Commission discusses above that a DLT-based market place or facilities for bringing together buyers and sellers of securities is typically maintained or provided by a single organization but a combination of the actors can constitute, maintain, or provide, together, a market place for securities as a group of persons, which would be considered an exchange under section 3(a)(1) of the Exchange Act and Rule 3b-16 thereunder.[373] The Commission acknowledges that there may be some existing systems of this type designed in such a way that the information necessary to comply with the disclosure requirements of Regulation ATS is not possessed by any singular entity. In such a case, the Commission believes that the entities

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371 See a16z Letter at 14.

372 See id. at 3, 14.

373 See supra section II.B.

responsible for compliance may find it necessary to form an organization or designate a member of the group of persons to be responsible for compliance, as discussed above,[374] and that such an organization or member of the group of persons would be capable of collecting the information necessary to comply. In cases of a system using DLT, where some or all of this information is not already possessed by entities responsible for compliance, the manner in which the system functions may have to be altered to make compliance with registration requirements possible. As discussed above,[375] this could be achieved by the organization or group of persons responsible.

The Commission believes that access to New Rule 3b-16(a) Systems that make extensive use of DLT in their operations may happen through processes not common to systems that do not make extensive use of such technology. In this case, such a New Rule 3b-16(a) System may have significant challenges in ensuring compliance with the Fair Access Rule of Regulation ATS.

The challenges that may be faced by New Rule 3b-16(a) Systems that make extensive use of DLT in complying with Regulation ATS and Regulation SCI may impose significant costs. It is possible that these costs may cause some such systems to exit the market, or to restructure their technology to facilitate a lower compliance cost. In addition, compliance with the applicable regulations may result in significant alteration to the manner in which such systems operate.

3. Efficiency, Competition, and Capital Formation

a. Competition

The Commission believes that the Proposed Rules could affect competition. The Proposed Rules could promote competition by requiring ATSs and New Rule 3b-16(a) Systems to operate on a more equal basis in the market for crypto asset securities trading services. The

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374 See supra section V.C.2.c.i.

375 See supra section V.C.2.c.i.

Fair Access Rule of Regulation ATS could promote competition in the market for trading services in the applicable securities markets.[376] Furthermore, the public disclosure of Form ATS-N could promote competition and incentivize innovation in the market for trading services in the applicable securities markets.[377]

Also, the costs of the Proposed Rules associated with, among other things, altering business practices to come into compliance, becoming a broker-dealer, filing Form ATS or Form ATS-N as applicable, and complying with the Fair Access Rule of Regulation ATS and Regulation SCI as applicable could result in higher barriers to entry and reduction in the rate of adoption of new technologies in the market for crypto asset securities trading services. Furthermore, the requirements of broker-dealer registration, Form ATS, and Form ATS-N could reduce operational flexibility. The Commission acknowledges that this reduction in operational flexibility could, under certain circumstances, make it more difficult to innovate. That said, in addition to the other benefits discussed above,[378] the Commission believes that the proposed amendments would foster competition by requiring current ATSs and New Rule 3b-16(a) Systems to operate on a more equal basis in the market for trading services. This, in turn, would help promote innovation. To the extent that the Proposed Rules result in significant costs for New Rule 3b-16(a) Systems, these systems could exit the market for crypto asset securities trading services. In particular, to the extent that New Rule 3b-16(a) Systems using certain technologies incur higher costs,[379] there may be a higher chance of these New Rule 3b-16(a) Systems exiting the market. As in the Proposing Release, the Commission lacks certain information necessary to quantify the extent to which entities that otherwise would seek to

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376 See infra section V.C.3.a.i.e for discussion about the impact of the Fair Access Rules on competition.

377 See infra section V.C.3.a.i.f for discussion about the impact of public disclosure via Form ATS-N under Rule 304 of Regulation ATS on competition.

378 See supra section V.C.1

379 See supra section V.C.2.c.

operate as a trading venue in the market for crypto asset securities would be dissuaded from doing so.

However, the Commission believes that these adverse effects on competition could be mitigated to some extent. To the extent that the market for crypto asset securities trading services is competitive and that a limited number of New Rule 3b-16(a) Systems exit the market, the adverse effect on overall competition among trading platforms would be mitigated to some extent because the order flow that was being sent to exiting New Rule 3b-16(a) Systems would likely be absorbed and redistributed amongst other New Rule 3b-16(a) Systems or systems that meet the existing criteria of Rule 3b-16(a).[380]

One commenter states that regulating "DeFi protocols or CPSs (or related parties)" as exchanges might "operate as a ban" due to the inability of those entities to comply with registration requirements.[381] Another commenter also states that the proposed amendments might amount to a "back-door prohibition of a vast swathe of actual and potential peer-to-peer finance protocols" due to the inability for some entities to feasibly comply.[382] Another commenter states that "subjecting DeFi systems to a regulatory regime that they cannot comply with" could force them into extinction.[383]

The Commission acknowledges that the costs of compliance may be greater for market participants that trade crypto asset securities than for those that trade non-crypto asset securities. However, the Commission believes that the additional costs of compliance experienced by market participants that trade crypto asset securities will vary depending on the technologies these participants use to perform exchange activity. The Commission lacks some information

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380 To the extent that the market for trading services is competitive, the adverse effect on competition may not result in a significant increase in trading costs for market participants because the order flow that was being sent to those exiting New Rule 3b-16(a) Systems would likely be absorbed and redistributed amongst other New Rule 3b-16(a) Systems or systems that meet the existing criteria of Rule 3b-16(a).

381 See DeFi Education Fund Letter at 8.

382 See Wells Letter at 1.

383 See a16z Letter at 11.

necessary to precisely estimate the degree to which these market participants may experience greater costs of compliance, but expects that such costs would fall within a range. At the lower end of the range, the Commission believes that market participants that use technologies similar to those commonly used in the market for traditional securities, such as off-chain RFQ systems, will also incur similar costs of compliance. At the other end of the scale, the Commission expects that costs of compliance may be significantly higher for market participants that extensively or exclusively use DLT, such as smart contracts, to perform exchange activities. Accordingly, while the Commission acknowledges that the Proposed Rules could raise barriers to entry into the market for crypto asset security trading services, the Commission believes that these barriers would be most significant for market participants that perform exchange activity in a way that extensively or exclusively uses DLT. The Commission additionally believes that for market participants that perform exchange activity using non-DLT methods, these barriers would likely be comparable to those experienced by participants in the market for traditional securities trading services.

One commenter states that the cost of compliance and consequences of non-compliance would have the effect of "chilling, restricting or prohibiting outright the creation of code for peer-to-peer digital asset trading or websites that provide access to information about those protocols."[384] Another commenter states that, to the extent that "adoption of the Proposal will cause the developers of code and smart contracts related to a Decentralized Protocol, or the maintainers of online websites that merely enable access to a Decentralized Protocol, to be captured under the 'exchange' definition," the proposal might cause such persons to cease their activities, "dealing a death blow to new activity in this sector."[385]

The Commission does not believe that the amended definition of exchange would include the entities responsible for these "Decentralized Protocols", except to the extent that they also

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384 See Delphi Digital Letter at 11.

385 See Blockchain Association Letter II at 6.

engage in activity that meets the definition of exchange as proposed to be amended in the Proposed Rules.[386] While the Commission acknowledges that the Proposed Rules may impose compliance costs, the Commission does not believe that the circumstances in which such entities would incur compliance costs would differ from the circumstances in which entities in non-crypto asset securities would incur compliance costs, namely, at the point at which such an entity engages in activity that meets the definition of exchange as proposed to be amended. However, the Commission acknowledges that because the compliance costs for entities that trade crypto asset securities may be higher than for those that trade non-crypto asset securities,[387] the impact of those costs on innovation in crypto asset securities may be greater.

One commenter stated that the Proposed Rules might "drive financial innovation offshore."[388] This commenter also added that the Proposed Rules "would preclude the development in the U.S. of many software tools and applications, including, but not limited to, DeFi protocols."[389]

The Commission acknowledges that, to the extent that the Proposed Rules impose compliance costs on entities responsible for innovation, such costs may affect their decision on which jurisdiction they choose to operate their business in. However, the Commission believes that these costs may be mitigated. The Commission believes that, at the lower end of this range, an entity that engages in the development of new technologies in the market for crypto asset trading services would incur compliance costs only once its innovative technology allows investors to trade securities. If such an entity develops its technology in an environment that does not enable investors to trade securities, such as a testnet,[390] the Commission does not

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386 See supra section V.C.2.a.

387 See supra sections V.C.2.a and V.C.2.c.ii.

388 See DeFi Education Fund Letter at 12.

389 See id. at 17.

390 This term refers to a blockchain designed to test technologies, such as smart contracts, in a manner that involves no risk of monetary loss. Testnets support a set of tokens that are distinct from "mainnet" tokens, and which are freely available from "faucets" that add them to wallets on request. As such, testnet tokens have no monetary value and are not securities. See https://coinmarketcap.com/alexandria/glossary/testnet.

believe it would incur compliance costs in connection with these activities. Additionally, while the Commission lacks certain data that would enable the Commission to precisely estimate the compliance costs that an innovative entity would face once its innovative technology enables investors to trade crypto asset securities, it believes that these costs would lie within a range. At the lower end of this range, the Commission believes that a market participant that uses innovative technology similar to technology that is used in traditional financial markets would also incur similar compliance costs. At the other end of the scale, the Commission expects that compliance costs would be largest for entities developing technologies that rely heavily on DLT, such as smart contracts, to perform exchange activity, and have minimal or no off-chain components. The Commission additionally believes that many systems that would experience these higher costs could be restructured to make less extensive use of these novel technologies, although this could significantly reduce the extent to which these systems operate in accordance with "DeFi" principles.

One commenter states their belief that the Proposed Rules would cause platforms to either "operate exclusively outside the United States or exit the business," due to lack of a "realistic prospect of obtaining SEC authority to operate as an exchange or SEC and FINRA authority to operate as an ATS."[391] This commenter notes that the Commission had not, at the time of writing, "registered any digital asset platform as an exchange."[392]

While the Commission acknowledges that the Proposed Rules would impose costs on New Rule 3b-16(a) Systems that trade crypto asset securities, which may in turn raise barriers to entry as discussed above or create incentives to exit the market, the Commission disagrees that compliance would be "infeasible." The Commission has discussed, above, the manner and extent to which it believes that compliance costs may create barriers to entry for market participants that seek to trade crypto asset securities. To the extent that market participants that

391 See GDCA Letter II at 7.

392 See id. at 13.

trade crypto asset securities face barriers to entry or incentives to exit due to higher compliance costs, or perceive this to be the case, the Commission acknowledges that such entities may instead choose to operate outside the U.S. or exit the market.

i. Regulation ATS

a) Regulatory Framework

Market participants may consider registered exchanges, ATSs, and broker-dealers (e.g., single dealer platforms) to send their order flow in crypto asset securities. As discussed in the Proposing Release,[393] to the extent that current ATSs and New Rule 3b-16(a) Systems compete, the proposed changes to Exchange Act Rule 3b–16, which would subject New Rule 3b-16(a) Systems to the exchange regulatory framework, which includes the option to comply with Regulation ATS, would promote competition by requiring current ATSs and New Rule 3b-16(a) Systems to operate on a more equal basis in securities markets. The Commission believes this to be the case in the market for crypto asset securities as it is in the market for the securities discussed in the Proposing Release. To the extent that registered exchanges, ATSs, broker-dealers compete for order flows in the crypto asset securities market, the differential compliance costs for exchange, ATS, and broker-dealer would affect competition across these different types of trading platforms. The Commission acknowledges that national securities exchanges would incur significantly higher compliance costs than ATSs and broker-dealers, and ATSs would incur higher compliance costs than broker-dealers. Higher compliance costs could put registered exchanges at a disadvantage in competing against ATSs and broker-dealers that trade the same types of securities, and similarly put ATSs at a disadvantage in competing against broker-dealers. Although registered exchanges, ATSs, and broker-dealers may compete for order flows, they provide different services and are subject to different regulatory obligations. Furthermore, to the extent that New Rule 3b-16(a) Systems that use certain technologies to compete with other

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393 See Proposing Release at 15634.

New Rule 3b-16(a) Systems for order flows, higher costs for New 3b-16(a) Systems that use certain technologies would put such systems at a competitive disadvantage against other New Rule 3b-16(a) Systems.[394]

One commenter states that the Proposed Rules would advantage "traditional financial services companies," due to "fundamentally dissimilar technologies."[395] This commenter adds that the Proposed Rules would "limit competition and transparency by entrenching existing market players" to the detriment of investors and the public, but does not specify who these existing market players might be.[396] The commenter additionally states their concern that the Proposed Rules might include in the revised definition of exchange certain entities that contribute code "to an open-source project that subsequently allows third parties to engage in trading activity" but have no ability "to supervise that activity or impose limitations on the types of orders that are entered." The commenter states that under the Proposed Rules, a developer that cannot comply with registration requirements might leave the market or provide services to a traditional trading platform, "further entrenching the traditional systems."

The Commission does not believe that the amended definition of exchange would include the entities responsible for innovation in the markets for crypto assets or crypto asset trading services, except to the extent that they also engage in activity that meets the definition of exchange as amended in the Proposed Rules.[397] The Commission acknowledges that, to the extent that market participants who trade crypto asset securities compete with traditional financial services firms and that such market participants incur greater costs of compliance,[398] the Proposed Rules could give traditional financial services firms a competitive advantage. Because the Commission lacks information on the degree to which such market participants

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394 See supra section V.C.2.c for discussion about the additional costs for New 3b-16(a) Systems that use certain technologies.

395 See DeFi Education Fund Letter at 2.

396 See DeFi Education Fund Letter at 10.

397 See supra section V.C.2.a.

398 See supra sections V.C.2.a and V.C.2.c.

would incur greater costs of compliance, the Commission cannot estimate the extent of this advantage. Additionally, the Commission believes that the Proposed Rules would cause New Rule 3b-16(a) Systems to compete on a more equal basis with their main competitors in the market for crypto asset securities, which the Commission believes may already be subject to federal securities regulations.[399]

As discussed in the Proposing Release,[400] the Commission acknowledges that some New Rule 3b-16(a) Systems could restructure their operations to not meet the Rule 3b-16 criteria as proposed to be amended to avoid being subject to Regulation ATS and Regulation SCI if the requirements are too burdensome or impair the ability of the trading venue to compete. As in the Proposing Release, the Commission believes that the risk of this occurring may be mitigated because the proposed amendments to Rule 3b–16 may make it difficult for New Rule 3b-16(a) Systems to restructure their operations to not meet the Rule 3b-16 criteria as proposed to be amended. To the extent this does occur, the benefits and enhancements to competition discussed above would be reduced. The Commission believes that these effects would apply to New Rule 3b-16(a) Systems that trade in crypto asset securities as they would to New Rule 3b-16(a) Systems that trade the securities discussed in the Proposing Release.

As discussed in the Proposing Release,[401] the Commission acknowledges that subjecting New Rule 3b-16(a) Systems to the requirements of Regulation ATS could reduce operational flexibility. For example, it would be more costly for New Rule 3b-16(a) Systems to implement significant changes to operational facets that would be required to be reported on Form ATS or Form ATS-N. This reduction in operational flexibility could, under certain circumstances, make it more difficult to innovate. The Commission believes this effect would apply to New Rule 3b-16(a) Systems that trade crypto asset securities in the same manner that it would to New Rule 3b-

399 See supra section II.B.

400 See Proposing Release at 15634.

401 See id.

16(a) Systems that trade non-crypto asset securities discussed in the Proposing Release. However, as in the Proposing Release, in addition to the other benefits discussed above, the Commission believes that the Proposed Rules could foster competition by requiring current ATSs and New Rule 3b-16(a) Systems to operate on a more equal basis in the market for crypto asset security trading services. This, in turn, could help promote innovation.

b) Compliance Costs of Regulation ATS

To the extent that the costs[402] associated with altering business practices for New Rule 3b-16(a) Systems to come into compliance with Regulation ATS are significant enough to make these systems unprofitable, these systems could exit the market for crypto asset securities trading services, adversely affecting competition.[403] To the extent that New Rule 3b-16(a) Systems using certain technologies incur additional costs to come into compliance with Regulation ATS, these systems could have a higher chance of exiting the market for crypto asset securities trading services.[404] Furthermore, to the extent the Proposed Rules result in a New Rule 3b-16(a) System that trades less liquid securities exiting the market for trading services, it could increase the trading costs of its subscribers if they need to find a new trading venue or are forced to go through multiple intermediaries (i.e., broker-dealers) to find counterparties. However, to the extent that the market for crypto asset securities trading services is competitive and that a limited number of New Rule 3b-16(a) Systems exit the market, the adverse effect on overall competition among trading platforms would be mitigated to some extent.

Furthermore, the Commission preliminarily believes that the compliance costs associated with Regulation ATS would have different effects on the competitive position of ATSs

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402 See infra sections V.C.3.a.i.c) and V.C.3.a.i.d) for discussions about the impact of costs associated with Rule 301(b)(1) (broker-dealer registration requirements) and Rule 301(b)(5) (the Fair Access Rule) of Regulation ATS on competition, respectively.

403 See supra sections V.C.2.b and V.C.2.c for discussion about the costs associated with changing business practices to come into compliance with Regulation ATS.

404 See supra section V.C.2.c for discussion about the additional costs associated with changing business practices to come into compliance with Regulation ATS for New Rule 3b-16(a) Systems that use certain technologies.

depending on their size. As a result of the Proposed Rules, all New Rule 3b-16(a) Systems would be subject to Rule 301(b)(2), Rule 301(b)(9) and Rule 301(b)(10), Rule 302, and Rule 303. As discussed above[405] and in the Proposing Release,[406] most of the estimated compliance costs associated with these rules would be fixed costs to those New Rule 3b-16(a) Systems regardless of the amount of trading activity that takes place on them, and thus, these compliance costs would represent a larger fraction of revenue for a small (measured in trading volume) New Rule 3b-16(a) System relative to that for a large New Rule 3b-16(a) System. Furthermore, most of the estimated compliance costs associated with the requirements of Form ATS-N under Rule 304, which all New Rule 3b-16(a) Systems that trade NMS stocks or government securities would incur, would be fixed costs.[407] This could have an adverse impact on New Rule 3b-16(a) Systems of small size in competing against larger ATSs, which could act as a deterrent or a barrier to entry for potential New Rule 3b-16(a) Systems or result in small New Rule 3b-16(a) Systems exiting the market for trading services. However, if small New Rule 3b-16(a) Systems engage in providing simpler services, these small New Rule 3b-16(a) Systems are likely to incur lower compliance costs. The Commission believes that these effects would apply to the market for crypto asset securities in the same manner that they would to the market for non-crypto asset securities.

The Commission acknowledges the Proposed Rules could reduce operational flexibility, which could, under certain circumstances, make it more difficult to innovate or reduce the rate of the adoption of new technologies. As in the Proposing Release, the Commission believes that, to the extent the Proposed Rules force an entity that develops new technologies to exit the market, it may be able to restructure itself (rather than operate as an ATS) as a third-party vendor and continue to provide certain innovative services, or otherwise sell its technology to another ATS,

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405 See supra section VIII.C.2.a.i.

406 See Proposing Release at note 1165.

407 See supra section VIII.C.2.a.i and Proposing Release, section VIII.C.2.a.i.

which would mitigate to some extent any adverse impact the Proposed Rules may have on the adoption of new technologies in the market for crypto asset security trading services.

c) Broker-Dealer Registration Requirements

In addition to the compliance costs associated with the requirements of Regulation ATS, non-broker-dealer-operated New Rule 3b-16(a) Systems without a broker-dealer affiliate would incur additional compliance costs related to registering with the Commission as broker-dealers, becoming members of an SRO, such as FINRA, and maintaining broker-dealer registration and SRO membership. Furthermore, these non-broker-dealer operators could incur costs associated with altering business practices to come into compliance with the Proposed Rules.[408] To the extent that the costs associated with changing business practices to come into compliance with the Proposed Rules is significant enough to render non-broker-dealer operators of New Rule 3b-16(a) Systems unprofitable to stay in the business, these operators of New Rule 3b-16(a) Systems would exit adversely impacting competition in the market for crypto asset securities trading services.[409] However, to the extent that the market for crypto asset securities trading services is competitive and that a limited number of New Rule 3b-16(a) Systems exit the market, the adverse effect on overall competition would be mitigated.

d) Ineffectiveness Declaration

The proposed ability for the Commission to be able to declare a Form ATS-N or Form ATS-N amendment ineffective could result in compliance costs for New Rule 3b-16(a) Systems that trade NMS stocks and may affect competition in the market for NMS stock trading services. However, as discussed in the Proposing Release,[410] based on Commission staff's experience with NMS Stock ATSs that filed an initial Form ATS-N, the Commission preliminarily believes this

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408 See supra section V.C.2.a.ii for discussion about the costs associated with changing business practices to come into compliance with the Proposed Rules.

409 The Commission believes that the costs associated with the broker-dealer registration requirements could adversely affect the rate of innovation. See supra sections V.C.3.a.i and V.C.3.a.i.c) for discussion about the impact of the Proposed Rules on the rate of innovation.

410 See Proposing Release at 15636 including notes 1180 and 1183.

would be an unlikely result. The Commission believes this unlikeliness would extend to the market for crypto asset securities that are NMS stocks.

e) Fair Access

The Commission believes that applying the Fair Access Rule to New Rule 3b-16(a) Systems could increase competition between market participants in the markets for corporate debt securities, municipal securities, NMS stocks, and equity securities that are not NMS stocks. As discussed above, to the extent that there are market participants currently excluded from trading on significant New Rule 3b-16(a) Systems, applying the Fair Access Rule to New Rule 3b-16(a) Systems could increase trading venue options available to these market participants, which could lower their trading costs. This, in turn, could increase competition among market participants trading on these platforms, which could be significant sources of liquidity and represent a significant portion of trading volume in their respective markets. However, these competitive effects may be reduced to the extent that some existing subscribers of trading venues that are subject to the Fair Access Rule redirect their trading interest to other trading venues not subject to the Fair Access Rule in order to preserve some of the benefits they may receive from a trading venue limiting access. If the Proposed Rules to apply certain aggregate volume thresholds increase the number of smaller affiliate ATSs that would be subject to the Fair Access Rule, it could also increase competition among market participants, to the extent that certain market participants are currently excluded from accessing these platforms. The Commission believes that these effects on competition would apply to New Rule 3b-16(a) Systems that trade crypto asset securities in the same manner that they would to New Rule 3b-16(a) Systems that trade non-crypto asset securities.

Additionally, as discussed in the Proposing Release, the Proposed Rules to apply certain aggregate volume thresholds to the Fair Access Rule could also harm competition among trading venues in the markets for corporate debt, municipal securities, NMS stock and equity securities that are not NMS stocks if they cause a broker-dealer or affiliated broker-dealers that operate

multiple ATSs to restrict trading in one or more securities, or shut down one or more of their smaller ATSs, in order to avoid triggering the Fair Access volume threshold. However, because the trading volume on these smaller ATSs would likely be absorbed and redistributed amongst other ATSs or non-ATS venues, the Commission believes that the overall effects on competition among trading venues may not be significant. To the extent that the markets for trading services are competitive, the Commission believes that such competitive effects would be applicable to New 3b-16(a) Systems that trade crypto asset securities that are corporate debt securities, municipal securities, NMS stock, and equity securities that are not NMS stocks.

f) Public Disclosure

As discussed in the Proposing Release,[411] the public disclosure of Form ATS-N would enhance the operational transparency of New 3b-16(a) Systems that trade in NMS stocks, including crypto asset securities that are NMS stocks. The enhancement in the operational transparency of New Rule 3b-16(a) Systems would promote competition in the markets for crypto asset securities trading services. The increase in competition could result in lower venue fees, improve the efficiency in customer trading interest or order handling procedures, and promote innovation. To the extent that non-ATS venues compete with ATSs' order flows, the increased operational transparency of ATSs could also incentivize non-ATS trading venues to reduce their fees to compete with ATSs. The Commission believes that these effects would apply to the market for crypto asset securities trading services. However, because New Rule 3b-16(a) Systems using smart contracts operate using code which may be, at least in part, publicly viewable, it is possible that the impacts of Form ATS-N disclosures on competition may be reduced, for such systems. However, because this code is not disclosed in a form that is standardized or readable to a layman, the Commission believes that this reduction of impact may not be significant.

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411 See Proposing Release at 15637.

As discussed in the Proposing Release,[412] because the public disclosure of Form ATS-N would make it easier for market participants to compare the quality of trading services, such as innovative trading functionalities, order handling procedures, and execution statistics, market participants would be more likely to send their trading interests or orders to ATSs, including New 3b-16(a) Systems, that offer better trading services. This would promote greater competition in the market for trading services and incentivize ATSs to innovate, including in particular, technology related to trading services to improve the quality of such services to attract more subscribers. The Commission believes these effects on competition and innovation would apply to ATSs trading in crypto asset securities that are NMS stocks in the same manner that they do to ATSs that trade non-crypto asset securities.

As discussed in the Proposing Release,[413] the public disclosure of Form ATS-N would also result in market participants redirecting their trading interest away from ATSs that offer lower quality trading services compared to other ATSs, which could result in these ATSs earning less revenue. If the loss in revenue causes these ATSs to become unprofitable, they might choose to exit the market. The Commission believes these effects would apply to ATSs trading in crypto asset securities that are NMS stocks in the same manner that they do to ATSs that trade non-crypto asset securities.

As discussed in the Proposing Release,[414] the public disclosure of previously nonpublic information regarding innovative operational facets of a New Rule 3b-16(a) System that trades NMS stock could adversely impact competition in the market for trading services and also reduce the incentives for these trading venues to innovate. As in the Proposing Release, the Commission believes that the risk of these adverse effects occurring would be low, because the information disclosed on Form ATS-N is not likely to include detailed enough information

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412 See id.

413 See id.

414 See id. at 15638.

regarding operational facets or innovations such that the public disclosure would adversely affect the competitive position of the disclosing ATS. To the extent that any crypto asset security is an NMS stock, the Commission believes that these effects would apply as described in the Proposing Release to market participants wishing to trade such a security.

As discussed in the Proposing Release,[415] although the Commission acknowledges that some NMS stock ATSs could restructure their operations to be non-ATSs to avoid being subject to the public disclosure of Form ATS-N, the risk of this occurring may be mitigated because the proposed amendments to Rule 3b–16 may make it difficult for an ATS, including one that trades crypto asset securities, to restructure their operations to be non-ATSs.

ii. Regulation SCI

The Commission believes that the requirements imposed by Regulation SCI may not have a significant adverse effect on competition in the market for crypto asset security trading services, or on market participants' trading costs in the market for crypto asset securities.

As discussed in the Proposing Release,[416] the Commission believes that the compliance costs imposed by Regulation SCI may not have a significant adverse effect on competition among SCI ATSs, non-SCI ATSs, and non-ATS venues in the NMS stock market due to mitigating factors. If SCI ATSs pass on the compliance costs to their subscribers in the form of higher fees, SCI ATSs would lose order flow or their subscribers to other, non-SCI ATSs and non-ATS venues with lower fees. Adverse competitive effects, however, would be mitigated because an SCI ATS would likely have more robust systems, fewer disruptive systems issues, and better up-time compared to non-SCI ATSs. Furthermore, any adverse competitive effect may be minor if an SCI ATS is large and has a more stable and established subscriber base than other ATSs and non-ATS venues. The Commission expects these effects to apply to ATSs trading in crypto asset securities that are NMS stocks in the same manner.

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415 See id.

416 See id.

As discussed in the Proposing Release,[417] the compliance costs associated with participating in business continuity and disaster recovery plan testing would affect competition among subscribers of SCI ATSs and also would raise barriers to entry for new subscribers. Because some subscribers would incur compliance costs associated with Rule 1004 and others would not, it would adversely impact the ability for those subscribers of SCI ATSs to compete. The Commission expects these effects to apply to ATSs trading in crypto asset securities that are NMS stocks in the same manner that they apply to ATSs that trade non-crypto asset securities, but as in the Proposing Release, the Commission lacks sufficient information to estimate the extent of impact on competition. If larger subscribers of SCI ATSs already maintain connections to backup facilities including for testing purposes, the adverse impact on competition would be mitigated because the incremental compliance costs associated with the business continuity and disaster recovery plan testing requirements under Rule 1004 would be limited for those larger subscribers. The Commission believes that, in the market for crypto asset securities as in the market for non-crypto asset securities, new subscribers are less likely to be designated immediately to participate in business continuity and disaster recovery plan testing than are existing larger subscribers because new subscribers might not initially satisfy the ATS's designation standards as they establish their businesses.

As discussed in the Proposing Release,[418] it is difficult to estimate the costs of Regulation SCI for third-party vendors that operate SCI systems or indirect SCI systems on behalf of SCI ATSs. If Regulation SCI imposes compliance costs on such vendors, the compliance costs would affect the competition among third-party vendors in the market for SCI systems or indirect SCI systems. If the costs associated with Regulation SCI for third-party vendors outweigh the benefits of continuing to operate SCI systems or indirect SCI systems on behalf of SCI ATSs, these third-party vendors would exit the market for SCI systems or indirect systems. In this

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417 See id.

418 See id.

respect, Regulation SCI would adversely impact such vendors and reduce the ability for some third-party vendors to compete in the market for SCI systems and indirect SCI systems, with attendant costs to SCI ATSs. If this happens, SCI ATSs would incur costs from having to find a new vendor, form a new business relationship, and adapt their systems to those of the new vendor. SCI ATSs might also elect to perform the relevant functions internally. If the current third-party vendors are the most efficient means of performing certain functions for SCI ATSs, and to the extent that any third-party vendor exits the market, finding new vendors or performing the functions internally would represent a reduction in efficiency for SCI ATSs. The Commission expects these effects to apply to ATSs trading in crypto asset securities that are NMS stocks, and their vendors, in the same manner that they apply to ATSs that trade non-crypto asset securities.

b. Efficiency and Capital Formation

As discussed in the Proposing Release,[419] the Commission believes the Proposed Rules could promote price efficiency and capital formation by reducing trading costs and the potential for systems disruptions on ATSs that capture a significant portion of trading volume. As discussed in the Proposing Release,[420] the proposed requirement for certain New Rule 3b-16(a) Systems to publicly disclose Form ATS-N could help reduce trading costs for market participants. Subjecting significant New Rule 3b-16(a) Systems to the Fair Access Rule could also help reduce market participants' trading costs. A reduction in trading costs could, in turn, reduce limits to arbitrage and help facilitate informed traders impounding information into security prices, which could enhance price efficiency. Extending Regulation SCI and Rule 301(b)(6) would help improve systems up-time for ATSs and would also promote more robust systems that directly support execution facilities, order matching, and the dissemination of market data, which could also enhance price efficiency. The Commission expects these effects

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419 See Proposing Release at 15639.

420 See id.

to apply to ATSs that trade crypto asset securities in the same manner that they apply to ATSs that trade non-crypto asset securities.

Proposed Rules could also adversely affect the price efficiency of crypto asset securities. It may no longer be possible for a New Rule 3b-16(a) System to facilitate trading crypto asset securities for crypto assets that are not securities. To the extent that the markets for crypto asset securities denominated in crypto assets that are not securities reduce transaction costs, market participants would experience higher transaction costs, reducing price efficiency, and impeding the price discovery process.[421] Also, if ATSs restrict trading volume in certain securities to stay below the Fair Access Rule, Regulation SCI, and Rule 301(b)(6) thresholds, it could adversely affect price efficiency and capital formation. The Commission expects these effects to apply to ATSs that trade crypto asset securities in the same manner that they apply to ATSs that trade non-crypto asset securities.

As discussed in the Proposing Release,[422] enhanced price efficiency could also promote capital formation. On the other hand, the Commission believes that the proposed amendments of the Fair Access Rule, Regulation SCI, and Rule 301(b)(6) could also adversely affect price efficiency and capital formation if ATSs that are close to satisfying the volume threshold limit trading over some period restrict trading or cease operating to stay below the volume thresholds and avoid being subject to these rules. To the extent that this keeps ATSs from getting larger, it would increase fragmentation, and thus, adversely affect price efficiency in those markets, harming capital formation. The Commission expects these effects to apply to ATSs that trade crypto asset securities in the same manner that they apply to ATSs that trade non-crypto asset securities.

D. Reasonable Alternatives

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421 See supra section V.C.2.b for discussion about the costs associated with the trading of crypto asset securities for crypto assets that are not securities on Communication Protocol Systems.

422 See id.

The Commission has considered several alternatives to the Proposed Rules: (1) delay subjecting New Rule 3b-16(a) Systems that exclusively trade crypto asset securities to the Proposed Rules; (2) subject only New Rule 3b-16(a) Systems that trade government securities to the Proposed Rules; (3) subject only New Rule 3b-16(a) Systems that trade fixed income securities to the Proposed Rules; (4) exempt New Rule 3b-16(a) Systems that use only non-firm trading interest from the Fair Access Rule; (5) exempt New Rule 3b-16(a) Systems that use only non-firm trading interest from Regulation SCI; (6) stipulate that systems offering non-firm trading interest only meet the definition of an exchange if they offer anonymous interactions; and (7) use a more explicit and prescriptive approach in defining the type of non-firm trading interest system that meets the definition of an exchange.

1. Delay Subjecting New Rule 3b-16(a) Systems that Exclusively Trade Crypto Asset Securities to the Proposed Rules

As discussed above, the Commission received comment, and is soliciting comment, on the application of the Proposed Rules to systems that trade crypto asset securities. As an alternative, the Commission could adopt the proposed changes to Rule 3b-16(a), but delay applying the changes to New Rule 3b-16(a) Systems that trade crypto asset securities.[423]

Importantly, this alternative of a delayed compliance period would be only with respect to the application of the new rules. Notwithstanding inclusion of this alternative of providing a delayed compliance date with respect to New Rule 3b-16(a) Systems that trade crypto asset securities, the Commission emphasizes that operators of trading systems, including those trading crypto asset securities, need to evaluate whether they meet the criteria of existing Exchange Act Rule 3b-16(a), and thus must register as a national securities exchange or operate pursuant to an

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423 Alternatively, a delay could be implemented for other types of securities. See supra section III.E. As discussed above, for purposes of adopting a different compliance date for New Rule 3b-16(a) Systems that trade crypto asset securities, crypto asset securities could be defined as, for example, securities that are also issued and/or transferred using distributed ledger or blockchain technology, including, but not limited to, so-called "virtual currencies," "coins," and "tokens," to the extent they rely on cryptographic protocols. The Commission is soliciting comment on the definition. See id.

exemption to such registration, or meet the definition of a "broker" or "dealer" that is required to register with the Commission and become a member of a self-regulatory organization. In this regard, the Commission will continue to evaluate whether currently operating systems are acting consistently with federal securities laws and the rules thereunder.

Relative to the proposal, this alternative would result in delayed benefits and costs because market participants that trade in crypto asset securities using New Rule 3b-16(a) Systems would not accrue benefits[424] and costs[425] discussed in sections V.C.1 and V.C.2 or in the Proposing Release until the delayed compliance date. Similarly, this alternative would result in delayed effects on efficiency, competition, and capital formation discussed above.[426]

This alternative could result in several additional effects. It may be that New Rule 3b-16(a) Systems that trade in both crypto asset securities and non-crypto asset securities would have the incentive to separate crypto asset securities trading, which would be subject to the delay. This could reduce efficiency. Relative to the proposal, New Rule 3b-16(a) Systems that trade exclusively in crypto asset securities would enjoy a competitive advantage for a longer period of time over New Rule 3b-16(a) Systems that trade both crypto asset securities and securities that are not crypto assets due to delayed compliance costs. Furthermore, relative to the proposal, to the extent that crypto asset securities of any type of security may be considered substitutes for non-crypto asset securities of the same type, and that platforms that trade such crypto asset securities compete with those that trade their non-crypto asset security counterparts, the platforms that trade crypto asset securities would enjoy a competitive advantage over those that trade non-crypto asset securities.

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424 Affected benefits would include delayed enhancements to regulatory oversight and investor protection, delayed reductions of trading costs, delayed improvements to execution quality, smaller enhancements of price discovery and liquidity, and delayed benefits from electronic filing requirements as described above. See supra section V.C.1.

425 Affected costs would include delayed implementation costs, delayed costs associated with broker-dealer requirements, ineffectiveness declaration, the Fair Access Rule, Rule 301(b)(6), and Regulation SCI, and delayed indirect costs as described above. See supra section V.C.2.

426 See supra section V.C.3.

2. Subject Only New Rule 3b-16(a) Systems that Trade Government Securities to the Proposed Rules

As an alternative, the Commission considered subjecting only New Rule 3b-16(a) Systems that trade government securities to the Proposed Rules. New Rule 3b-16(a) Systems play a significant role in the market for government securities. One of the roles of these New Rule 3b-16(a) Systems is to provide a means to communicate trading interest in the dealer-to-customer market. The Commission understands that these systems are a significant component of the dealer-to-customer segment of government securities market and account for a significant portion of the total trading volume in government securities.[427]

Under this alternative, New Rule 3b-16(a) Systems that trade securities other than government securities would not be subject to the Proposed Rules. Relative to the proposal, this alternative would result in smaller benefits and costs as well as reduced effects on efficiency, competition, and capital formation. Market participants that utilize New Rule 3b-16(a) Systems to trade securities other than government securities would not accrue benefits from the requirements of Regulation ATS discussed in the Proposing Release. Under this alternative, relative to the proposal, market participants trading in securities other than government securities would not accrue the benefits of the Proposed Rules including the enhancement in regulatory oversight and investor protection, the reduction in trading costs, and the enhancement of price discovery and liquidity.[428] In addition, to the extent that ATSs and New Rule 3b-16(a) Systems compete for order flows in securities markets other than government securities, ATSs would not be able to compete against New Rule 3b-16(a) Systems on a more equal regulatory basis, which would adversely impact competition relative to the proposal. On the other hand, relative to the proposal, the Commission believes that reduced regulatory requirements would help maintain operational flexibility, which in turn, would help promote innovations for New Rule 3b-16(a)

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427 See Proposing Release at 15601 and 15602.

428 See supra section V.C.1 for discussion about the benefits of the Proposed Rules.

Systems that trade securities other than government securities. Furthermore, the Commission believes that lower compliance costs would help promote competition in the market for trading services with respect to non-government securities relative to the proposal.

3. Subject Only New Rule 3b-16(a) Systems that Trade Fixed Income Securities to the Proposed Rules

As an alternative, the Commission could consider subjecting only New Rule 3b-16(a) Systems that trade fixed income securities that are not crypto asset securities[429] to the Proposed Rules. New Rule 3b-16(a) Systems play a significant role by providing means to communicate trading interest in the dealer-to-customer market in fixed income securities trading. The Commission understands that these New Rule 3b-16(a) Systems account for a significant portion of the total trading volume in fixed income securities.[430]

Under this alternative, New Rule 3b-16(a) Systems that trade securities other than fixed income securities would not be subject to the Proposed Rules. Relative to the proposal, this alternative would result in smaller benefits and costs as well as reduced effects on efficiency, competition, and capital formation. Market participants that utilize New Rule 3b-16(a) Systems to trade securities other than fixed income securities would not accrue benefits from the requirements of Regulation ATS discussed in the Proposing Release. For example, market participants that trade crypto asset securities via New Rule 3b-16(a) Systems would not benefit from investor protection provisions of Regulation ATS. On the other hand, relative to the proposal, the Commission believes that reduced regulatory requirements would help maintain operational flexibility, which in turn, would help promote innovations for New Rule 3b-16(a) Systems that trade securities other than fixed income securities. Furthermore, relative to the

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429 Fixed income securities would include government securities, corporate debt securities, municipal securities, and asset-backed securities as discussed in the Proposing Release.

430 See Proposing Release at 15601, 15602, 15605, 15606, 15607, and 15609.

proposal, the Commission believes that lower compliance costs would help promote competition in the market for trading services with respect to non-fixed income securities.

4. Exempt New Rule 3b-16(a) Systems that Use Only Non-Firm Trading Interest from the Fair Access Rule

As an alternative, the Commission considered exempting New Rule 3b-16(a) Systems that only use non-firm trading interests from the Fair Access Rule of Regulation ATS. Relative to the proposal, significant New Rule 3b-16(a) Systems that only use non-firm trading interests would not incur the costs associated with the Fair Access Rule, which may potentially include significant costs for altering business practices to comply with the rule. On the other hand, to the extent that there are market participants who are unreasonably denied access to significant New Rule 3b-16(a) Systems that only use non-firm trading interests, the execution quality for these market participants would be worse relative to the proposal.

5. Exempt New Rule 3b-16(a) Systems that Use Only Non-Firm Trading Interest from Regulation SCI

As an alternative, the Commission considered exempting New Rule 3b-16(a) Systems that only use non-firm trading interests from Regulation SCI. The requirements of Regulation SCI would result in significant costs for significant New Rule 3b-16(a) Systems. Relative to the proposal, significant New Rule 3b-16(a) Systems that only use non-firm trading interests would not incur the costs associated with Regulation SCI, which could include significant costs for establishing and maintaining geographically diverse backup facilities. This could promote competition by lowering the barriers to entry and reducing the incidences of exit relative to the proposal. On the other hand, relative to the proposal, the frequency and severity of systems issues could be higher and the duration of systems issues could be longer, which would harm price discovery and adversely impact trading costs of market participants.

6. Stipulate that Systems Offering Non-Firm Trading Interest Only Meet the Definition of an Exchange If They Offer Anonymous Interactions

As an alternative, the Commission considered excluding systems that only use non-firm trading interests and do not offer anonymous protocols[431] from the definition of an exchange. Under this alternative, many significant fully disclosed dealer-to-customer RFQ platforms that trade fixed income securities including government securities, corporate debt securities, and municipal securities would not meet the definition of an exchange, and thus, would not incur the costs associated with the Proposed Rules. Furthermore, lower costs would help promote innovation in the market for securities trading services relative to the proposal. However, because this alternative would exclude many significant trading systems that would meet the definition of exchange as proposed to be amended that trade fixed income securities, the benefits of the Proposed Rules would be significantly reduced relative to the proposal.

7. Use a More Explicit and Prescriptive Approach in Defining the Type of Non-Firm Trading Interest System that Meets the Definition of an Exchange

As an alternative, the Commission considered a more explicit and prescriptive approach in defining an exchange by providing a list of specific types of systems that meet the definition of an exchange (or, by providing a list of specific types of systems that do not meet the definition of an exchange). Relative to the proposal, this approach would reduce uncertainty and the costs associated with the proposed activity-based definition of an exchange. A more explicit and prescriptive definition of an exchange could reduce legal costs associated with complying with the proposed activity-based definition of an exchange.[432] Furthermore, the reduction in such costs could help promote innovation in the market for securities trading services. On the other hand, a more explicit and prescriptive definition of an exchange could make it easier for a trading venue to modify its systems to operate as a non-exchange, which would not be subject to

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431 An anonymous protocol in this context means that counterparties stay anonymous until the terms (i.e., price and quality) of the trade is fixed between the two counterparties engaged in a transaction.

432 See also supra section V.C.2.b.ii for discussion about the costs associated with complying with the proposed functional-test-based definition of an exchange.

the Proposed Rules. Relative to the proposal, this would result in lower benefits. For example, market participants that utilize such trading venues would not benefit from investor protection provisions of Regulation ATS.

E. Request for Comments

44. In the Proposing Release, the Commission proposed to replace the term "uses" with the term "makes available" before "established, non-discretionary methods" in Rule 3b-16(a)(2) because the Commission proposed to include as an established, non-discretionary method communication protocols under which buyers and sellers can interact and agree to the terms of a trade.[433] Would this proposed change have costs for developers of technology that are not reflected in the economic analysis? Would adopting alternative language (such as "Uses established, non-discretionary methods (whether by providing, directly or indirectly, a trading facility…)," "[E]stablishes non-discretionary methods (whether by providing, directly or indirectly, a trading facility or…)") result in different costs than the proposed language?[434]

45. Do commenters agree with the Commission's characterization of platforms in the market for crypto assets securities? Please provide any relevant details that you believe are missing from the Commission's description.

46. Please provide any information on the number and type of venues that permit trading crypto asset securities for fiat currency.

47. Do commenters agree with the Commission's characterization of the technology used by systems in the market for crypto assets securities? Please provide any relevant details that you believe are missing from the Commission's description.

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433 See Proposing at 15506. See also supra section III.B.

434 See supra Requests for Comment #10-11.

48. Do commenters agree with the Commission's characterization of New Rule 3b-16(a) Systems that trade crypto asset securities? Please provide any relevant details that you believe are missing from the Commission's description.

49. Please provide any data on crypto asset securities trading volume and trading volume share of New Rule 3b-16(a) Systems.

50. Please provide any information on the types of protocols used by New Rule 3b-16(a) Systems that trade crypto assets securities.

51. Do commenters agree with the Commission's characterization of other methods (other than platforms) of trading in the market for crypto assets securities? Please provide any relevant details that you believe are missing from the Commission's description.

52. Please provide any information on the current market practice for bilateral voice trading and electronic chat messaging in trading crypto assets securities.

53. Please provide any information on the role of bilateral voice trading in the market for crypto assets securities.

54. Do commenters agree with the Commission's characterization of crypto asset securities trading services? Please provide any relevant details that you believe are missing from the Commission's description.

55. Would the Proposed Rules enhance regulatory oversight and investor protection in the market for crypto asset securities? Would requiring New Rule 3b-16(a) Systems that trade crypto asset securities to register as broker-dealers help lead to these benefits? Would the Proposed Rules lead to improvements in the safeguarding of confidential information in the market for crypto asset securities?

56. Do commenters agree that the Proposed Rules would reduce trading costs and improve execution quality for market participants that use New Rule 3b-16(a) Systems? Do commenters agree that Regulation SCI would improve the resiliency of

New Rule 3b-16(a) Systems in the applicable securities markets? Do commenters agree that Rule 301(b)(6) would improve the resiliency of such systems in the applicable securities markets?

57. Are there any other benefits of subjecting to the exchange regulatory framework a New Rule 3b-16(a) System which uses certain technologies that allow them to run portions of their operations using smart contracts deployed on an underlying blockchain? Please explain.

58. Do commenters agree with the Commission's assessment of the entities that would incur costs in the crypto asset security market as a result of the Proposed Rules? If not, please provide examples of additional entities that would incur costs.

59. Do commenters agree with the Commission's assessment of the implementation costs estimated in the Reopening Release? If not, please provide as many quantitative estimates to support your position on costs as possible.

60. Please provide any insights or data on the costs associated with the proposed broker-dealer requirements for New Rule 3b-16(a) Systems that are operated by non-broker-dealers.

61. The Commission solicits comment on any circumstances in which actors within a group of persons, which can include, for example, the provider(s) of the DeFi application or user interface, developers of AMMs or other DLT code, DAO, validators or miners, and issuers or holders of governance or other tokens, may incur costs in connection with their activities that may constitute, maintain, or provide a market place or facilities for bringing together buyers and sellers of securities under Exchange Rule 3b-16, as proposed to be amended.

62. Do commenters agree with the Commission's assessment of the costs for systems that use certain technology and trade crypto asset securities as described in section V.C.2.c? Please explain.

63. Do commenters agree with the Commission's assessment that the compliance costs associated with bringing a New Rule 3b-16(a) System that uses certain technologies that allow them to run portions of their operations using smart contracts deployed on an underlying blockchain into compliance may be greater than those for other platforms that trade crypto asset securities? If so, which costs do commenters expect to be greater, and why? Please explain and share any relevant data.

64. Do commenters agree with the Commission's assessment of the costs that may be associated with bringing a New Rule 3b-16(a) System that uses certain technologies that allow it to run portions of its operations using smart contracts deployed on an underlying blockchain into compliance? Do commenters believe that such costs could be significant? Please explain and share any relevant data.

65. Do commenters agree with the Commission's assessment of the initial compliance costs for New Rule 3b-16(a) Systems that use certain technologies that allow them to run portions of their operations using smart contracts deployed on an underlying blockchain? Please explain.

66. Do commenters agree with the Commission's assessment of the costs that miners or validators may bear? Please explain and share any relevant data.

67. Please provide examples of automation of New Rule 3b-16(a) Systems by means of immutable smart contracts.

68. Do commenters agree with the Commission's assessment of the impact of the Proposed Rules on efficiency, competition and capital formation? Do commenters agree that the Proposed Rules would allow for competition among trading systems on a more equal basis? Do commenters agree with the Commission's assessment as to the risks of increasing barriers to entry and causing current trading systems to exit the market? Please explain.

69. To what extent would the Proposed Rules increase the barriers to entry for new trading venues or cause some existing trading venues to exit the market? How would these effects vary based on the size and/or type of trading venue and the securities market in which it operates? Please explain.

70. How would the Proposed Rules affect innovation? Please explain. Which provisions of the Proposed Rules would affect innovation the most and how? Please explain.

71. To what extent would the Proposed Rules cause existing trading venues to cease operating in the United States, if at all? If the Proposed Rules would have any such effect, which provisions of the Proposed Rules would be most responsible for this effect, and how? Please explain and share any relevant data.

72. Do commenters agree with the Commission's assessment of the effects of an alternative to delay subjecting New Rule 3b-16(a) Systems that exclusively trade crypto asset securities to the Proposed Rules?

73. Do commenters agree with the Commission's assessment of the effects of an alternative to subject only New Rule 3b-16(a) Systems that trade government securities to the Proposed Rules?

74. Do commenters agree with the Commission's assessment of the effects of an alternative to subject only New Rule 3b-16(a) Systems that trade fixed income securities to the Proposed Rules?

75. For purposes of determining compliance with the Fair Access Rule and Regulation SCI, an ATS must determine its trading volume to assess whether the ATS is subject to these rules. Does an ATS have the ability to obtain the necessary information to calculate thresholds to determine if the ATS is subject to Regulation SCI and Regulation ATS? Why or why not?

By the Commission.

Dated: April 14, 2023.

J. Matthew DeLesDernier,
Deputy Secretary.
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