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SECURITIES AND EXCHANGE COMMISSION

17 CFR Part 240

[Release No. 34-80295; File No. S7-22-16]

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Securities Transaction Settlement Cycle

AGENCY: Securities and Exchange Commission.

ACTION: Final rule.

SUMMARY: The Securities and Exchange Commission ("Commission") is adopting an amendment to the Settlement cycle Rule (Rule 15c6-1(a)) under the Securities Exchange Act of 1934 ("Exchange Act") to shorten the standard settlement cycle for most broker-dealer transactions from three business days after the trade date ("T+3") to two business days after the trade date ("T+2").

DATES: Effective date: May 30, 2017.

Compliance date: September 5, 2017.

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SUPPLEMENTARY INFORMATION: The Commission is amending Rule 15c6-1 of the Exchange Act under the Commission's rulemaking authority set forth in Sections 15(c)(6), 17A and 23(a) of the Exchange Act (15 U.S.C. 78o(c)(6), 78q-1, and 78w(a) respectively).

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I. Introduction

On September 28, 2016, the Commission proposed an amendment to Exchange Act Rule 15c6-1(a) to shorten the standard settlement cycle from T+3 to T+2.[1] After consideration of the comments received in response to the T+2 Proposing Release, the Commission is adopting the amendment to Rule 15c6-1(a), as proposed.[2] As discussed in greater detail below, the Commission believes that shortening the standard settlement cycle to T+2 at this time will lead to a reduction in credit, market, and liquidity risk, and as a result, a reduction in systemic risk for U.S. market participants.[3] These benefits, as discussed below, will be distributed across the financial system.

Specifically, the Commission believes that the shortened standard settlement cycle will reduce certain risks inherent in the clearance and settlement process for all clearing agencies, such as a central counterparty's ("CCP's")[4] credit, market, and liquidity risk exposure to its members, because there will be fewer unsettled trades and a reduced time period of exposure to

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[1] See Exchange Act Release No. 78962 (Sep. 28, 2016), 81 FR 69240 (Oct. 5, 2016) ("T+2 Proposing Release").

[2] If any of the provisions of these rules, or the application thereof to any person or circumstance, is held to be invalid, such invalidity shall not affect other provisions or application of such provisions to other persons or circumstances that can be given effect without the invalid provisions or application.

[3] Credit risk refers to the risk that the credit quality of one party will deteriorate to the extent that it is unable to fulfill its obligations to its counterparty on settlement date. Market risk refers to the risk that the value of securities bought and sold will change between trade execution and settlement such that the completion of the trade would result in a financial loss. Liquidity risk describes the risk that an entity will be unable to meet financial obligations on time due to an inability to deliver funds or securities in the form required though it may possess sufficient financial resources in other forms. T+2 Proposing Release, supra note 1, 81 FR at 69241 n.3.

[4] As defined in Exchange Act Rule 17Ad-22(a)(2), "CCP means a clearing agency that interposes itself between the counterparties to securities transactions, acting functionally as the buyer to every seller and the seller to every buyer." 17 CFR 240.17Ad-22(a)(2).

such trades.[5] The Commission believes that shortening the standard settlement cycle to T+2 will also result in related reductions in liquidity risks for broker-dealers that are CCP members and, by extension, introducing broker-dealers that clear their trades through CCP members. As a result of the transition to the T+2 standard settlement cycle, a CCP may require less financial resources (i.e., collateral) from its members, and the CCP's members may, in turn, reduce margin charges and other fees that they may pass down to other market participants, including introducing broker-dealers, institutional investors, and retail investors, thereby reducing trading costs. In addition, the Commission believes that a shortened standard settlement cycle will enable market participants to gain quicker access to funds and securities following trade execution, which should further reduce liquidity risks and financing costs incurred by market participants. The Commission also believes that shortening the standard settlement cycle will more closely align and harmonize the U.S. standard settlement cycle with those foreign markets that have already moved to a shorter settlement cycle. Finally, the Commission believes that shortening the standard settlement cycle will promote technological innovation and changes in market infrastructures and operations that will incentivize market participants to further pursue more operationally and technologically efficient processes, which may lead to further shortening of the standard settlement cycle.

The Commission has also considered the costs attendant to shortening the standard settlement cycle to T+2 and believes that the amendment to Rule 15c6-1(a) will yield benefits that justify the associated costs. The Commission also believes that shortening the standard settlement cycle is supported by significant changes in technology, operations, and infrastructure

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[5] Credit and liquidity risk may also be relevant to the functioning of a central securities depository ("CSD"), given that the CSD will rely on incoming payments or deliveries of securities from certain participants to make payments or deliveries to other participants.

that have occurred in the financial markets since the Commission's adoption of Rule 15c6-1 in 1993, as well as the investments already undertaken by market participants in recent years to support a migration to a T+2 standard settlement cycle.

II. Background

A. Statutory Framework

Congress amended the Exchange Act in 1975 to, among other things, (i) direct the Commission to facilitate the establishment of a national system for the prompt and accurate clearance and settlement of transactions in securities, and (ii) provide the Commission with the authority to regulate those entities critical to the clearance and settlement process.[6] At the same time, Congress provided the Commission with direct rulemaking authority over broker and dealer activity in making settlements, payments, transfers, and deliveries of securities.[7] Taken together, these provisions provide the Commission with the authority to regulate entities that are critical to the national clearance and settlement system.[8]

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6 15 U.S.C. 78q-1(a)(2)(A); see also S. Rep. No. 94-75 (1975), *reprinted* in 1975 U.S.C.C.A.N. 179, 183; Securities and Exchange Commission, Study of Unsafe and Unsound Practices of Brokers and Dealers, H.R. Doc. No. 92-231 (1971); 15 U.S.C. 78q-1(a)(1)(A)–(D) (setting forth the Congressional findings for Section 17A of the Exchange Act). "Clearance and settlement" refers generally to the activities that occur following the execution of a trade. These post-trade processes are critical to ensuring that a buyer receives securities and a seller receives proceeds in accordance with the agreed-upon terms of the trade by settlement date.

7 S. Rep. No. 94-75, supra note 6, at 111. Specifically, Section 15(c)(6) of the Exchange Act prohibits broker-dealers from engaging in or inducing securities transactions in contravention of such rules and regulations as the Commission shall prescribe as necessary or appropriate in the public interest and for the protection of investors or to perfect or remove impediments to a national system for the prompt and accurate clearance and settlement of securities transactions, with respect to the time and method of, and the form and format of documents used in connection with, making settlements of and payments for transactions in securities, making transfers and deliveries of securities, and closing accounts. 15 U.S.C. 78o(c)(6).

8 See 15 U.S.C. 78q-1(b)–(c); 15 U.S.C. 78o(c).

Congress reaffirmed its view of the importance of a strong clearance and settlement system in 2010 with the enactment of the Payment, Clearing, and Settlement Supervision Act ("Clearing Supervision Act").[9] Specifically, Congress found that the "proper functioning of the financial markets is dependent upon safe and efficient arrangements for the clearing and settlement of payments, securities, and other financial transactions."[10] Under the Clearing Supervision Act, registered clearing agencies[11] providing CCP and CSD services[12] are financial market utilities ("FMUs").[13] FMUs centralize clearance and settlement activities and enable

9 See 12 U.S.C. 5461−5472.

10 12 U.S.C. 5461(a)(1).

11 Section 17A(b) of the Exchange Act requires any clearing agency performing the functions of a clearing agency with respect to any security (other than an exempted security) to be registered with the Commission, unless the Commission has exempted such entity from the registration requirements. 15 U.S.C. 78q-1(b)(1). The term "clearing agency" is defined broadly to include any person who: (1) acts as an intermediary in making payments or deliveries or both in connection with transactions in securities; (2) provides facilities for comparison of data respecting the terms of settlement of securities transactions, to reduce the number of settlements of securities transactions, or for the allocation of securities settlement responsibilities; (3) acts as a custodian of securities in connection with a system for the central handling of securities whereby all securities of a particular class or series of any issuer deposited within the system are treated as fungible and may be transferred, loaned, or pledged by bookkeeping entry, without physical delivery of securities certificates (such as a securities depository); or (4) otherwise permits or facilitates the settlement of securities transactions or the hypothecation or lending of securities without physical delivery of securities certificates (such as a securities depository). 15 U.S.C. 78c(a)(23). A clearing agency may provide, among other things, CCP services and CSD services.

12 As defined in Exchange Act Rule 17Ad-22(a)(3), "central securities depository services" means the services of a clearing agency that is a central securities depository as described in Section 3(a)(23)(A) of the Exchange Act (15 U.S.C. 78c(a)(23)(A)). 17 CFR 240.17Ad-22(a)(3).

13 The Clearing Supervision Act defines "financial market utility" or "FMU" as any person that manages or operates a multilateral system for the purpose of transferring, clearing, or settling payments, securities, or other financial transactions among financial institutions or between financial institutions and the person. 12 U.S.C. 5462(6)(A). This definition contains a number of exclusions that include, but are not limited to, certain designated contract markets, registered futures associations, swap or security-based swap data repositories, swap execution

market participants to reduce costs, increase operational efficiency, and manage risks more effectively. While an FMU can provide many risk management benefits to market participants, the concentration of clearance and settlement activity at an FMU has the potential to disrupt the securities markets if the FMU does not effectively manage the risk in its activities.[14]

B. Regulatory Framework

The Commission adopted Exchange Act Rule 15c6-1 in 1993 to establish T+3 as the standard settlement cycle for broker-dealer transactions, and in so doing, effectively shortened the prevailing settlement cycle for most securities transactions (with certain exceptions), which was generally five business days after the trade date ("T+5").[15] At that time, the Commission cited a number of reasons for standardizing and shortening the settlement cycle, including reducing credit and market risk exposure related to unsettled trades, reducing liquidity risk

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facilities, national securities exchanges, alternative trading systems, brokers, dealers, transfer agents, investment companies, and futures commission merchants. 12 U.S.C. 5462(6)(B)(i).

[14] See Standards for Covered Clearing Agencies, Exchange Act Release No. 78961 (Sept. 28, 2016), 81 FR 70786, 70849 (Oct. 13, 2016) ("CCA Standards Adopting Release"); see also Risk Management Supervision of Designated Clearing Agencies, Joint Report to Senate Committees on Banking, Housing, and Urban Affairs and Agriculture, Nutrition, and Forestry, and the House Committees on Financial Services and Agriculture, from the Board of Governors of the Federal Reserve System, Securities and Exchange Commission, and Commodity Futures Trading Commission (July 2011), available at https://www.federalreserve.gov/publications/other-reports/files/risk-management-supervision-report-201107.pdf.

[15] Securities Transactions Settlement, Exchange Act Release No. 33023 (Oct. 6, 1993), 58 FR 52891, 52893 (Oct. 13, 1993) ("T+3 Adopting Release"). Rule 15c6-1 of the Exchange Act prohibits broker-dealers from effecting or entering into a contract for the purchase or sale of a security (other than an exempted security, government security, municipal security, commercial paper, bankers' acceptances, or commercial bills) that provides for payment of funds and delivery of securities later than the third business day after the date of the contract unless otherwise expressly agreed to by the parties at the time of the transaction. 17 CFR 240.15c6-1.

among derivatives and cash markets, encouraging greater efficiency in the clearance and settlement process, and reducing systemic risk for the U.S. markets.[16]

Since the adoption of Rule 15c6-1, the financial markets have expanded and evolved significantly.[17] Over that time, the Commission has continued to focus on further mitigating and managing risks in the clearance and settlement process, including risks associated with the U.S. standard settlement cycle. For example, in 2004, the Commission published a concept release[18] seeking comment on, among other things, the benefits and costs of moving to a standard settlement cycle shorter than T+3, and possible methods to help the U.S. securities industry achieve straight-through processing ("STP").[19]

The Commission's efforts to facilitate further shortening of the standard settlement cycle are consistent with its broader focus on enhancing the resilience and efficiency of the national clearance and settlement system and the role that certain FMUs, particularly CCPs and CSDs,

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16 T+3 Adopting Release, supra note 15, 58 FR at 52893.

17 See generally Concept Release on Equity Market Structure, Exchange Act Release No. 61358 (Jan. 14, 2010), 75 FR 3594 (Jan. 21, 2010).

18 Securities Transactions Settlements, Exchange Act Release No. 49405 (Mar. 11, 2004), 69 FR 12922 (Mar. 18, 2004). Specifically, the Commission sought comment on, among other things, (i) the benefits and costs of shortening the settlement cycle to a timeframe less than T+3; (ii) whether the Commission should adopt a new rule or the SROs should be required to amend their existing rules to require the completion of the confirmation/affirmation process on trade date ("T+0"); and (iii) reducing the use of physical securities.

19 The Securities Industry Association (which in 2006 merged with The Bond Markets Association to form the Securities Industry Financial Markets Association) has described STP "as the seamless integration of systems and processes to automate the trade process from end-to-end — trade execution, confirmation, and settlement — without manual intervention or the re-keying of data." Securities Industry Association, Glossary of Terms, reprinted in part in Kyle L Brandon, Prime Brokerage: Of Prime Importance to the Securities Industry (SIA Res. Rep., Vol. VI, No. 4, New York, N.Y.), Apr. 28, 2005, at 25-26, http://www.sifma.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=21718&libID=5884.

play in concentrating and managing risk.[20] To address these risks, the Commission has used its authority under the Exchange Act, as supplemented by the authority under the Clearing Supervision Act, to promulgate rules designed to, among other things, establish enhanced risk, operational, and governance standards for FMUs registered as clearing agencies with the Commission to help ensure that FMUs under its supervision are subject to sufficiently robust regulatory standards.[21] These entities are also subject to inspections and examinations under both the Exchange Act and the Clearing Supervision Act, and the Commission also monitors these entities to assess and evaluate the risks posed.[22]

C. Overview of Market Participants Affected by the Settlement Cycle

The clearance and settlement process for transactions involving securities that currently settle on a T+3 standard settlement cycle involves a number of market participants whose role and functions will be impacted significantly by a change in the standard settlement cycle.[23] As a

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[20] See Clearing Agency Standards, Exchange Act Release No. 68080 (Oct. 22, 2012), 77 FR 66220 (Nov. 2, 2012) ("Clearing Agency Standards Adopting Release").

[21] See, e.g., CCA Standards Adopting Release, supra note 14; Clearing Agency Standards Adopting Release, supra note 20, 77 FR at 66221-22.

[22] CCA Standards Adopting Release, supra note 14, 81 FR at 70794.

[23] This release focuses on securities that currently settle on a T+3 standard settlement cycle. The definition of the term "security" in Section 3(a)(10) of the Exchange Act covers, among others, stocks, corporate bonds, unit investment trusts ("UITs"), mutual funds, exchange-traded funds ("ETFs"), American depository receipts ("ADRs"), and options. 15 U.S.C. 78c(a)(10). Although current Rule 15c6-1 establishes a standard settlement timeframe of no more than T+3, in today's environment certain types of transactions routinely settle on a settlement cycle shorter than T+3, which is permissible under the rule. For example, open-end funds (i.e., mutual funds) generally settle on a T+1 basis, except for certain retail funds which typically settle on T+3, and options generally settle on a settlement cycle less than T+3. Therefore, such transactions that already settle on a shorter settlement cycle will not be impacted by the amendment shortening the standard settlement cycle to T+2.

In addition, Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010), amended, among other things, the definition of "security" under the Exchange Act to encompass security-based swaps. The Commission granted starting point, there are a number of market participants that operate as financial market infrastructures facilitating the national clearance and settlement system, including two FMUs that provide CCP and CSD services, respectively, and three matching and electronic trade confirmation service providers (collectively "Matching/ETC Providers").[24] In addition, there is the diverse population of market participants that depend on the clearance and settlement services facilitated by the FMUs and Matching/ETC Providers that also will be affected by the shortened settlement cycle. These market participants include, but are not limited to, institutional and retail investors, broker-dealers, and custodians.

1. FMUs

a. CCP

A CCP eliminates bilateral risk between individual counterparties by becoming the buyer to each seller and the seller to each buyer, thereby assuming a central role in ensuring the performance of open contracts and the facilitation of the clearance and settlement of the trade. In

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temporary exemptive relief from compliance with certain provisions of the Exchange Act, including Rule 15c6-1, in connection with the revision of the Exchange Act definition of "security" to encompass security-based swaps in July 2011. See Order Granting Temporary Exemptions Under the Securities Exchange Act of 1934 In Connection With the Pending Revision of the Definition of "Security" To Encompass Security-Based Swaps, Exchange Act Release No. 64795 (July 1, 2011), 76 FR 39927 (July 7, 2011), and Order Extending Temporary Exemptions Under the Securities Exchange Act of 1934 In Connection With the Revision of the Definition of "Security" To Encompass Security-Based Swaps, Exchange Act Release No. 71485 (Feb. 5, 2014), 79 FR 7731 (Feb. 10, 2014). The Commission then extended the exemption for Rule 15c6-1, along with certain other exemptions, to February 5, 2018. See Order Extending Certain Temporary Exemptions under the Securities Exchange Act of 1934 In Connection with the Revision of the Definition of "Security" to Encompass Security-Based Swaps, Exchange Act Release No. 79833 (Jan. 18, 2017), 82 FR 8467 (Jan. 25, 2017).

[24] See Order Granting Exemption from Registration as a Clearing Agency for Global Joint Venture Matching Services-U.S., LLC, Exchange Act Release No. 44188 (Apr. 17, 2001), 66 FR 20494, 20501 (Apr. 23, 2001) ("Omgeo Order"); Order Approving Applications for an Exemption from Registration as a Clearing Agency for Bloomberg STP LLC and SS&C Techs., Inc., Exchange Act Release No. 76514 (Nov. 24, 2015), 80 FR 75388, 75413 (Dec. 1, 2015) ("Bloomberg/SS&C Order").

the U.S. financial system, NSCC is the only CCP for trades involving securities that currently settle on a T+3 standard settlement cycle.[25] NSCC facilitates the management of risk among its members using a number of tools, which primarily include: (1) novating and guaranteeing trades to assume the credit risk of the original counterparties; (2) netting to reduce NSCC's overall exposure to its counterparties; and (3) collecting clearing fund contributions from members to help ensure that NSCC has sufficient financial resources in the event that one of the counterparties defaults on its obligations.[26]

In novation, when a CCP member presents a contract to the CCP for clearing, the original contract between the buyer and seller is discharged and two new contracts are created, one between the CCP and the buyer, and the other between the CCP and the seller. The CCP thereby assumes the original parties' contractual obligations to each other. Historically, NSCC has attached its trade guaranty to its novated transactions at midnight on T+1; however, the Commission recently approved a rule change proposed by NSCC that will accelerate the NSCC trade guaranty from midnight of T+1 to the point of trade comparison and validation for bilateral submissions, or to the point of trade validation for locked-in submissions.[27] Through novation

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25 In addition to providing CCP services, NSCC provides a number of other non-CCP services to market participants, including, for example, services that support mutual funds, alternative investments, and insurance products.

26 NSCC's rules provide for several categories of membership with different levels of access to NSCC's services. This release uses the term "member" when referring to an NSCC member that has full access to NSCC's CCP services. See NSCC Rules and Procedures, Rule 1 (providing definitions of the various membership categories) ("NSCC Rules and Procedures"), www.dtcc.com/legal/rule-and-procedures.

27 See Self-Regulatory Organizations; National Securities Clearing Corporation; Order Granting Approval of Proposed Rule Change to Accelerate its Trade Guaranty, Add New Clearing Fund Components, Enhance its Intraday Risk Management, Provide for Loss Allocation of "Off-the-Market Transactions," and Make Other Changes, Exchange Act Release No. 79598 (Dec. 19, 2016), 81 FR 94462 (Dec. 23, 2016). NSCC has not yet implemented these rule changes.

and the trade guaranty, the two original trading counterparties to the transaction replace their bilateral credit, market, and liquidity risk exposure to each other with risk exposure to NSCC.

Netting is the process of automatically offsetting a member's buy orders of an individual security against its corresponding sell orders for that security, thereby allowing NSCC to reduce the number and value of the transactions that must be cleared between members to settle their trades. Through the use of NSCC's netting and accounting system, the Continuous Net Settlement System ("CNS"), NSCC accepts trades into CNS for clearing from exchanges and other trading venues.[28] It also uses CNS to net each NSCC member's trades in each security traded that day to a single receive or deliver position for such securities.[29] Throughout the day, cash debit and credit data generated by NSCC's members' activities are recorded, and at the end of the processing day, the debits and credits are netted for each security to produce one aggregate cash debit or credit for each member.[30]

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[28] NSCC accepts CNS-eligible securities. To be CNS-eligible, a security must be eligible for book-entry transfer on the books of DTC, and must be capable of being processed in the CNS system. For example, securities may be ineligible for CNS processing due to certain transfer restrictions (e.g., 144A securities) or due to the pendency of certain corporate actions. See NSCC Rules and Procedures, supra note 26, Rules 1 (defining CNS-eligible securities) and 3 (listing CNS-eligible securities).

[29] In CNS, compared and recorded transactions in CNS-eligible securities that are scheduled to settle on a common settlement date are netted by specific security issue into one net long (i.e., buy) or net short (i.e., sell) position. CNS then nets those positions further with positions of the same specific security issue that remain open after their originally scheduled settlement date, which are generally referred to as "Fail Positions." The result of the netting process is a single deliver or receive obligation for each NSCC member for each specific security issue in which the member has activity on a given day. See NSCC Rules and Procedures, supra note 26, Rule 11 and Procedures VII and X.

[30] See NSCC, Disclosures under the Principles for Financial Market Infrastructures, at 9 (Dec. 2015) ("NSCC PFMI Disclosure Framework"), http://www.dtcc.com/legal/policy-and-compliance.

To mitigate default risk, NSCC collects clearing fund deposits from its members to maintain sufficient financial resources in the event a member or members default on their obligations to NSCC.[31] NSCC's rules allow NSCC to adjust and collect additional clearing fund deposits as needed to cover the risks present while a member's trades are unsettled. Each member's required clearing fund deposit is calculated at least once daily pursuant to a formula set forth in NSCC's rules,[32] and is designed to provide sufficient funds to cover NSCC's exposure to the member.[33]

b. CSDs

A CSD is an entity that holds securities for its participants either in certificated or uncertificated (dematerialized) form so that ownership can be easily transferred through a book entry (rather than the transfer of physical certificates), as well as providing central safekeeping and other asset services. DTC serves as the CSD and securities settlement system[34] for most equity securities and a significant number of debt securities held by U.S. market participants. In its capacity as a CSD, DTC provides custody and book-entry transfer services for the vast majority of securities transactions that are cleared through NSCC. While NSCC provides final

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[31] NSCC's clearing fund is comprised of cash, securities, and letters of credit posted by NSCC members to provide NSCC the necessary resources to cover member defaults. The amount and timing of contributions to the clearing fund are determined pursuant to NSCC's rules. See NSCC Rules and Procedures, supra note 26, Rules 1 and 4.

[32] See NSCC Rules and Procedures, supra note 26, Rule 4 and Procedure XV.

[33] Commission Rules 17Ad-22(b)(1) through (4) and 17Ad-22(e)(4) through (6) establish standards for NSCC, as a registered clearing agency that performs CCP services and a covered clearing agency, with respect to its policies and procedures regarding margin and its financial resources. 17 CFR 240.17Ad-22(b)(1)–(4) and (e)(4)–(6).

[34] On September 28, 2016, the Commission published a proposal to amend the definition of a covered clearing agency to add registered clearing agencies that perform the services of a securities settlement system. See Exchange Act Rel. No. 78962 (Sep. 28, 2016) 81 FR 70744, 70745 (Oct. 13, 2016).

settlement instructions to its members each day, the payment for and transfer of securities ownership occurs at DTC.[35] In accordance with its rules, DTC accepts deposits of securities from its participants[36] (primarily broker-dealers and banks), credits those securities to the depositing participants' accounts, and effects book-entry transfer of those securities. The securities deposited with DTC are registered in DTC's nominee name and are held in fungible bulk for the benefit of its participants and their customers.

DTC substantially reduces the number of physical securities certificates transferred in the U.S. markets by immobilizing securities, which generally means, holding and transferring ownership of securities positions in book-entry form, with DTC's nominee reflected as the registered owner on the issuer's records, and by centralizing and automating securities settlements. DTC thereby significantly improves operational efficiencies and reduces the risks and costs associated with the processing of physical securities certificates.

In addition to a securities account at DTC, each DTC participant has a settlement account at a clearing bank (e.g., custodian) to record any net funds obligation for end-of-day settlement, whether payment will be due to or from the participant. During the day, debits and credits are

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35 At the conclusion of each trading day, CNS short positions (i.e., obligations to deliver) at NSCC are compared against the long positions held in the NSCC members' DTC accounts to determine security availability. If securities are available, they are transferred from the NSCC member's account at DTC to NSCC's account at DTC, to cover the NSCC member's CNS short positions. CNS long positions (i.e., the right to receive securities owed to the participant) are transferred from the NSCC account at DTC to the accounts of NSCC members at DTC. On settlement date, NSCC submits instructions to DTC to deliver (i.e., transfer) securities positions for each security netted though CNS for each NSCC member holding a long position in such securities. Cash obligations are settled through DTC by one net payment for each NSCC member at the end of the settlement day. See NSCC PFMI Disclosure Framework, supra note 30, at 106.

36 DTC's rules provide for different categories of membership, including "participants." This release uses the term "participant" when referring to a participant of DTC. See Rules, By-Laws, and Organizational Certificate of DTC, Rule 1 (providing definitions of various categories of membership).

entered into the participant's settlement account. The debits and credits arise from DVP transfers and from other events or transactions involving the transfer of funds, such as principal and interest payments distributed to a participant or intraday settlement progress payments by a participant to DTC.[37] Debits and credits in the participant's settlement account are netted intraday to calculate, at any time, a net debit balance or net credit balance, resulting in an end-of-day settlement obligation or right to receive payment. DTC nets debit and credit balances for participants who are also members of NSCC to reduce funds transfers for settlement, and acts as settlement agent for NSCC in this process. Settlement payments between DTC and DTC's participants' settlement banks are made through the National Settlement System of the Federal Reserve System.[38]

DTC also provides certain settlement services for trades by institutional investors (as discussed further in Part II.C.2 below) that are not otherwise cleared through NSCC. In such cases, institutional investors' transactions may be processed on a trade-for-trade basis through a prime broker[39] and settled on an RVP/DVP basis through DTC and the institutional customer's custodial bank.

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[37] As noted above, a CSD operates a securities settlement system that provides for transfers of securities either free of payment or for payment. When a transfer occurs for payment, typically securities settlement systems provide "delivery versus payment" or "DVP," whereby the delivery of the security occurs only if payment occurs. The concept of DVP is sometimes referred to as "DVP/RVP." The term "receive versus payment" or "RVP" is from the perspective of the seller.

[38] See NSCC PFMI Disclosure Framework, supra note 30, at 9-10.

[39] Prime brokers provide a range of centralized services to clients, including, for example, trade execution, custodial services, clearing and settlement services, financing, securities lending, recordkeeping and reporting services, and capital introduction.

c. Matching/ETC Providers – Exempt Clearing Agencies

Matching/ETC Providers electronically facilitate communication among a broker-dealer, an institutional investor, and the institutional investor's custodian to reach agreement on the details of a securities trade.[40] Currently, there are three entities that have obtained exemptions from registration as a clearing agency from the Commission to operate as Matching/ETC Providers.[41] The existing Matching/ETC Providers use two methods, "Matching"[42] and "ETC,"[43] to facilitate agreement on the trade details among the parties. When the parties reach agreement, it is generally referred to as an "affirmed confirmation."

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40 Electronic trade confirmation ("ETC") was originally developed by DTC in the early 1970s as an alternative to the use of phone, fax, or other manual processes. To facilitate greater use of ETC by market participants to process institutional trades, the Commission approved rule changes filed by several SROs that required the use of ETC for trades involving institutional investors. See Exchange Act Release No. 19227 (Nov. 9, 1982), 47 FR 51658, 51664 (Nov. 18, 1982) (order approving confirmation rules for exchanges and securities association).

41 The Commission issued an interpretive release in 1998 concluding that matching constitutes comparison of data respecting the terms of settlement of securities transactions, and therefore an entity that provides matching services as an intermediary between a broker-dealer and an institutional customer is a clearing agency within the meaning of Section 3(a)(23) of the Exchange Act and is, therefore, subject to the registration requirements of Section 17A. See Confirmation and Affirmation of Securities Trades, Exchange Act Release No. 39829 (Apr. 6, 1998), 63 FR 17943, 17946 (Apr. 13, 1998); Clearing Agency Standards Adopting Release, supra note 20, 77 FR at 66220, 66228 & n.94 (noting the 1998 interpretive release); see also 15 U.S.C. 78c(a)(23) (defining the term "clearing agency"). The Commission has provided exemptions from registering as a clearing agency to certain entities that operate matching and ETC services. See Omgeo Order, supra note 24; Bloomberg/SS&C Order, supra note 24.

42 Matching is a process by which the Matching/ETC Provider compares and reconciles the broker-dealer's trade details with the institutional investor's allocation instructions to determine whether the two descriptions of the trade agree. If the trade details and institutional investor's allocation instructions match, an affirmed confirmation is generated, which also is used to effect settlement of the trade. As with ETC, transmission of the affirmed confirmations by the Matching/ETC Provider to DTC facilitates automated trade settlement. Bloomberg/SS&C Order, supra note 24, 80 FR at 75389.

43 ETC is a process where the Matching/ETC Provider simply provides the communication facilities to enable a broker-dealer and its institutional investor to send messages back and forth that ultimately results in the agreement of the trade details or affirmed confirmation, which is in

2. Market Participants – Investors, Broker-Dealers, and Custodians

As mentioned above, a variety of market participants that depend on the clearance and settlement functions provided by the FMUs and Matching/ETC Providers will be affected by a shortened standard settlement cycle. These market participants include, but are not limited to, institutional and retail investors, broker-dealers, and custodians (e.g., banks).

Institutional investors are entities such as mutual funds, pension funds, hedge funds, bank trust departments, and insurance companies. Transactions involving institutional investors are often more complex than those for and with retail investors due to the volume and size of the transactions, the entities involved in facilitating the execution and settlement of the trade, including Matching/ETC Providers and custodians, and the need to manage certain regulatory or business obligations.[44]

Trades involving retail investors are typically smaller in size than institutional trades, and the settlement of retail investor trades generally occurs directly with the investor's or their intermediary's broker-dealer and does not involve a separate custodian bank. Accordingly, retail investors do not rely upon the involvement of a Matching/ETC Provider to facilitate the settlement of their transactions.

To clear and settle securities transactions directly through a registered clearing agency, the rules of the clearing agencies provide that a broker-dealer or other type of market participant

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turn sent to DTC to effect settlement of the trade. Bloomberg/SS&C Order, supra note 24, 80 FR at 75389.

[44] The distinction between "institutional investor" and "retail investor" is made only for the purpose of noting the manner in which these types of entities generally clear and settle their securities transactions. For the purposes of this release, the term "institutional investor" includes any entity that settles its trades using the facilities of a Matching/ETC Provider, and the term "retail investor" includes entities that do not use the facilities of a Matching/ETC Provider. For more information about the manner in which these entities clear and settle their securities, see the T+2 Proposing Release, supra note 1, Part II.A.3.

must become a direct member of that clearing agency; such broker-dealers are generally referred to as "clearing broker-dealers."[45] Clearing broker-dealers must comply with the rules of the clearing agency, including rules relating to operational and financial requirements, such as NSCC's clearing fund deposits mentioned above. In contrast, broker-dealers that submit transactions to a clearing agency through a clearing broker-dealer are generally referred to as "introducing broker-dealers." In general, broker-dealers executing trades on a registered securities exchange are required by the exchange's rules (as a self-regulatory organization ("SRO")) to clear those transactions through a registered clearing agency.[46] Broker-dealers executing trades otherwise than on an exchange (e.g., on an internalized basis) may clear and settle such trades through a clearing agency, may choose to settle those trades through mechanisms internal to that broker-dealer, or may settle such trades bilaterally.[47] Broker-dealers

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45 Due to the financial and operational obligations of entities submitting trades to a clearing agency, all clearing agencies have established specific requirements for initial membership and ongoing participation in the clearing agency. See, e.g., NSCC Rules and Procedures, supra note 26, Rules 2A and 2B (discussing initial and ongoing requirements for membership).

46 See, e.g., BATS EDGX Exchange, Inc. Rule 11.13 and NASDAQ Stock Market Rule 4618 (stating that all transactions through the facilities of the exchange shall be cleared and settled through a registered clearing agency using a continuous net settlement system; however, transactions may be settled "ex clearing" provided that both parties to the transaction agree); NYSE Rule 132 (stating that each party to a contract shall submit data regarding its side of the contract to a registered clearing agency for comparison or settlement; however, this requirement does not apply if otherwise stipulated in the bid or offer, otherwise mutually agreed upon by both parties to the contract, or a registered clearing agency refuses to act in the matter).

47 See generally Financial Industry Regulatory Authority ("FINRA") Rules 6350A(a) and 6350B(a) (requiring that FINRA members must clear and settle transactions in "designated securities" (i.e., NMS stocks) through the facilities of a registered clearing agency that uses a continuous net settlement system). See also FINRA Rule 6274(a) (requiring that FINRA members must clear and settle transactions "effected on" the Alternative Display Facility in ADF-eligible securities (i.e., NMS stocks) that are eligible for net settlement through the facilities of a registered clearing agency that uses a continuous net settlement system). Notwithstanding the requirements in Rules 6350A(a), 6350B(a) and 6274(a), transactions in designated securities and transactions in ADF-eligible securities may be settled "ex-clearing"

that effect transactions in municipal and corporate debt securities generally are required to clear and settle those transactions through a registered clearing agency.[48]

Custodians handle the electronic payment or receipt of payment through the Federal Reserve's Bank's Fedwire system, which automates and streamlines the process by which broker-dealers make payments for securities transactions. Pursuant to DTC rules, DTC participants are required to select a custodial bank to facilitate payment of their transactions cleared and settled through NSCC and DTC, with a net cash payment facilitated between DTC and the DTC participant's custodial bank account. Since many broker-dealers use the same custodial bank to settle their trades, NSCC and DTC can net the total amount being handled by any one custodian for all DTC participants using that bank.

Often, due to regulatory or business obligations, an institutional investor will not use its executing broker-dealer to custody the institutional investor's securities at DTC, but rather will use a custodian bank for the safekeeping and administration of both their securities and cash.[49]

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provided that both parties to the transaction agree to the same. See FINRA Rules 6350A(b), 6350B(b), 6274(b).

48 See Municipal Securities Rulemaking Board ("MSRB") Rule G-12(f) (stating that inter-dealer transactions in municipal securities shall be compared through a registered clearing agency); FINRA Rule 11900 (stating that a member or its agent that is a participant in a registered clearing agency, for the purposes of clearing over-the-counter securities transactions, shall use the facilities of a registered clearing agency for the clearance of eligible transactions between members in corporate debt securities).

49 Section 17(f) of the Investment Company Act of 1940 (the "Investment Company Act") and the rules thereunder govern the safekeeping of a registered investment company's assets, and generally provide that a registered investment company must place and maintain its securities and similar instruments only with certain qualified custodians. Section 17(f)(1)(A) of the Investment Company Act permits certain banks to maintain custody of registered investment company assets subject to Commission rules. See 15 U.S.C. 80a-17(f).

III. Discussion of Amendment to Exchange Act Rule 15c6-1

A. Amendment to Rule 15c6-1

In the T+2 Proposing Release, the Commission proposed to amend Rule 15c6-1(a) to shorten the standard settlement cycle from T+3 to T+2 and articulated several reasons supporting this proposal. The Commission received a number of comment letters in response.[50] As described in Parts III.A.1 through III.A.6 below, commenters generally supported the reasoning in the T+2 Proposing Release for shortening the standard settlement cycle. The comments received are addressed in detail below.

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50 See letters from Michael C. Parker (Sep. 29, 2016) ("Parker"); Eugene W. Guinn (Oct. 14, 2016) ("Guinn"); Sally J. Gellert (Oct. 20, 2016) ("Gellert"); Randy Spydell (Nov. 14, 2016) ("Spydell"); Todd J. May, President, The Securities Transfer Association, Inc. (Nov. 28, 2016) ("STA"); Keith Evans, Executive Director, Canadian Capital Markets Association (Nov. 1, 2016) ("CCMA"); Stephen E. Roth, Sutherland Asbill & Brennan LLP for the Committee of Annuity Insurers (Nov. 29, 2016) ("CAI"); Paul Kim (Dec. 4, 2016) ("Kim"); Greg Babyak, Head, Global Regulatory and Policy Group, Bloomberg L.P. (Dec. 5, 2016) ("Bloomberg"); Mike Nicholas, CEO, Bond Dealers Association (December. 5, 2016) ("BDA"); Micah Hauptman, Financial Services Counsel, Consumer Federation of America (Dec. 5, 2016) ("CFA"); William A. Jacobson, Esq., Clinical Professor of Law, Director, Cornell Securities Law Clinic, and Nandy Millette, and Arjun A. Ajjegowda ("CSLC"); Larry E. Thompson, Vice Chairman & General Counsel, Depository Trust and Clearing Corporation (Dec. 5, 2016) ("DTCC Letter"); Marc. R. Bryant, Senior Vice President, Deputy General Counsel, Fidelity Investments (Dec. 5, 2016) ("Fidelity"); Christopher W. Bok, Financial Information Forum (Dec. 5, 2016) ("FIF"); David T. Bellaire, Esq., Executive Vice President & General Counsel, Financial Services Institute (Dec. 5, 2016) ("FSI"); Richard Foster, Senior Vice President and Senior Counsel for Regulatory and Legal Affairs, Financial Services Roundtable (Dec. 5, 2016) ("FSR"); Martin A. Burns, Chief Industry Operations Officer, Investment Company Institute (Dec. 5, 2016) ("ICI"); Amy B.R. Lancellotta, Managing Director, Independent Directors Council (Dec. 5, 2016) ("IDC"); Stuart J. Kaswell, Executive Vice President & Managing Director, General Counsel, Managed Funds Association (Dec. 5, 2016) ("MFA"); Thomas F. Price, Managing Director, Operations and Technology & BCP, Securities Industry and Financial Markets Association (Dec. 5, 2016) ("SIFMA"); Manisha Kimmel, Chief Regulatory Officer, Wealth Management, Thomson Reuters (Dec. 5, 2016) ("Thomson Reuters"); Robert J. McCarthy, Director of Regulatory Policy, Wells Fargo Advisors (Dec. 5, 2016) ("WFA"); Ryan M. Newill (Dec. 8, 2016) ("Newill"); Jezamine Wee (Dec. 8, 2016) ("Wee"); Gene Finn, PhD. (Dec. 21, 2016) ("Finn I"); Gee Finn, PhD. (Dec. 21, 2016) ("Finn II"); Suzanne Shatto (Jan. 24, 2017) ("Shatto"). Copies of the comment letters are available at https://www.sec.gov/comments/s7-22-16/s72216.htm.

The Commission is adopting as proposed the amendment to Rule 15c6-1(a) to shorten the standard settlement cycle. Specifically, paragraph (a) of Exchange Act Rule 15c6-1, as amended, will prohibit broker-dealers from effecting or entering into a contract for the purchase or sale of a security (other than certain exempted securities)[51] that provides for payment of funds and delivery of securities later than the second business day after the date of the contract, unless otherwise expressly agreed to by the parties at the time of the transaction. Subject to the exceptions enumerated in the rule, the prohibition in paragraph (a) of Rule 15c6-1 applies to all securities.[52]

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51 Rule 15c6-1(a) does not apply to a contract for an exempted security, government security, municipal security, commercial paper, bankers' acceptances, or commercial bills. 17 CFR 240.15c6-1(a). The rule also provides additional exemptions for: (i) transactions in limited partnership interests that are not listed on an exchange or for which quotations are not disseminated through an automated quotation system of a registered securities association; (ii) contracts for the purchase and sale of securities that the Commission may from time to time, taking into account then existing market practices, exempt by order; and (iii) contracts for the sale of cash securities that priced after 4:30 p.m. (Eastern Standard Time) that are sold by an issuer to an underwriter pursuant to a firm commitment offering registered under the Securities Act of 1933 ("Securities Act") or the sale to an initial purchaser by a broker-dealer participating in such offering. 17 CFR 240.15c6-1(b) and (c).

Additionally, as discussed further in the T+3 Adopting Release, the Commission determined not to include transactions in municipal securities within the scope of Rule 15c6-1, with the expectation that the MSRB would take the lead in implementing three-day settlement of municipal securities by the implementation date of the new rule. The Commission requested a report from the MSRB within six months of the Commission's adoption of Rule 15c6-1 outlining the schedule in which the MSRB intended to implement T+3 in the municipal securities market. T+3 Adopting Release, supra note 15, 58 FR at 52899. MSRB rules that established T+3 as the standard settlement cycle for transactions in municipal securities became operative on June 7, 1995 (the same date as Exchange Act Rule 15c6-1). See Order Approving MSRB Proposed Rule Change Establishing Three Business Day Settlement Time Frame, Exchange Act Release No. 35427 (Feb. 28, 1995), 60 FR 12798 (Mar. 8, 1995).

52 See note 23 supra for a discussion of the securities subject to Rule 15c6-1.

1. Reduction in Risk to CCPs in the Clearance and Settlement Process

In the T+2 Proposing Release, the Commission noted its preliminary belief that shortening the standard settlement cycle would (assuming current levels of trading activity remain constant), for a CCP, result in fewer unsettled trades at any given point in time and a reduced time period of exposure to such trades, which would, in turn, reduce the CCP's credit, market, and liquidity risk exposure to its members.[53] Commenters generally agreed with this position.[54]

Several commenters noted that the reduced period of exposure for CCPs would result in a reduction of credit, market, and/or liquidity risk. For example, one commenter noted that shortening the settlement cycle would reduce the period during which CCPs are exposed to credit risk due to non-payment or non-delivery of a security (i.e., the CCP's exposure to risk if a member defaults on a payment), which could result in the CCP using its financial resources to meet the CCP's end-of-day settlement obligations.[55] Similarly, one commenter stated that a shorter settlement cycle would diminish counterparty and mark-to-market risks because the number of days between entering a transaction, until the time it is settled, is reduced by one day. This reduction would decrease the possibility of a counterparty failure prior to settlement, as well as the possibility of changes in the market value of the security purchased.[56] Another commenter stated, from the perspective of a CCP, that the T+2 transition would correspondingly decrease

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53 T+2 Proposing Release, supra note 1, 81 FR at 69257 and 69241 n.3.

54 Bloomberg at 1; CFA at 3; DTCC Letter at 2; Fidelity at 1; FIF at 2; FSI at 2; ICI at 4-5; IDC at 1; MFA at 1-2; SIFMA at 1.

55 FIF at 2.

56 ICI at 5. Generally, market risk refers to the risk that the value of securities bought and sold will change between trade execution and settlement such that the completion of the trade would result in a financial loss. T+2 Proposing Release, supra note 1, 81 FR at 69241 n.3.

the number of unsettled trades in the clearance and settlement system at any given time, which would mean that fewer unsettled trades would be subject to counterparty risk and market risk. The commenter further added that the market risk of unsettled trades would be reduced because there would be less time between trade execution and settlement for potential price movements in the securities underlying those trades.[57]

The Commission believes that, in the case of a CCP, fewer unsettled trades and a reduced time period of exposure to such trades will reduce the CCP's credit, market, and liquidity risk exposure to its members.[58] As discussed earlier, a CCP, through novation and the provision of its trade guaranty, acts as the counterparty to its members and faces resultant credit risk in that a clearing member, both on behalf of purchasers of securities who may fail to deliver the payment and on behalf of sellers of securities who may fail to deliver the securities. In each case, the CCP is required to meet its obligation to its members, which in respect of the buyer is to deliver securities, and in respect of the seller is to deliver cash.

The CCP also faces market risk if, during the settlement cycle, a member defaults and the CCP may be forced to liquidate open positions of the defaulting member and any financial resources of the member it may hold (i.e., collateral) to cover losses and expenses in adverse market circumstances. For example, if the market value of the unsettled securities has increased after the trade date, in the case of a seller default, the CCP may be forced to obtain the replacement securities in the market at a higher price, and in the case of a buyer default, the CCP

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57 DTCC Letter at 2.

58 See also note 5 supra.

may be forced to obtain cash to purchase the securities at a higher price, which could involve liquidation of its members' collateral.

Finally, the CCP can face liquidity risks during the settlement cycle if a member defaults, resulting in the CCP deploying financial resources to meet the CCP's end-of-day settlement obligations.[59] In each instance, the amount and period of risk to which the CCP is exposed is a function of the length of the settlement cycle, and the Commission therefore believes that shortening the settlement cycle should reduce the CCP's overall exposure to those risks.

2. Reduction in Risk to CCP Members

In the T+2 Proposing Release, the Commission stated its preliminary belief that shortening the standard settlement cycle to T+2 would result in liquidity risk reductions for broker-dealers that are CCP members.[60] As discussed earlier and in the T+2 Proposing Release,[61] a CCP may take a number of measures to manage the risks its members present, including the collection of member financial resource contributions and netting down the total outstanding exposure of a particular member. However, the extent to which a CCP must apply these risk mitigation tools is dictated by, among other things, the amount of unsettled trades that remain outstanding as well as the time during which the CCP remains exposed to these risks. Thus, the Commission believes that reducing the amount of unsettled trades and the period of

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59 The costs associated with deploying such resources are ultimately borne by the CCP members, both in the ordinary course of the CCP's daily risk management process and in the event of an extraordinary event where members may be subject to additional liquidity assessments. As discussed earlier, these costs may be passed on through the CCP members to broker-dealers and investors.

60 See T+2 Proposing Release, supra note 1, 81 FR at 69257.

61 See T+2 Proposing Release, supra note 1, 81 FR at 69243-44; Part III.A.1 supra.

time during which the CCP is exposed to such trades will result in a reduction in financial resource obligations for CCP members.[62]

Many commenters agreed.[63] For example, one commenter stated that shortening the settlement cycle would result in fewer unsettled trades at any point in time, which would reduce capital and clearing fund requirements for the CCP and its broker-dealer clearing members, which, in turn, would result in positive liquidity to broker-dealers that are direct members of clearing agencies.[64] Similarly, one commenter noted that by shortening the settlement cycle, market participants' exposure to customers' open positions would be reduced, which would allow financial institutions to better manage liquidity needs and margin requirements at CCPs.[65]

Another commenter stated that reduced collateral requirements would also help reduce liquidity risks, thereby improving capital utilization by market participants.[66] An additional commenter agreed with the Commission's preliminary belief, as articulated in the T+2 Proposing Release, that a shorter settlement cycle is likely to reduce liquidity risk for broker-dealers, with less collateral required to mitigate the risk of unsettled trades.[67] Another commenter stated that the reduction in counterparty risk would directly translate into a reduction of collateral requirements from CCPs, thus improving capital efficiency by CCP members.[68] Several other

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62 See T+2 Proposing Release, supra note 1, 81 FR at 69250-51.

63 ICI at 4-5; SIFMA at 15; DTCC at 2; WFA at 2; FIF at 2; Fidelity at 1; FSI at 3; IDC at 1; Newill at 1.

64 ICI at 4-5.

65 WFA at 2.

66 SIFMA at 15.

67 FIF at 2.

68 The commenter, the holding company for, among other entities, NSCC and DTC, noted a recent analysis that it conducted which indicated that the move to T+2 would reduce NSCC clearing fund deposits by an average of almost 25%, which translates into approximately $1.36

commenters stated generally that the transition to T+2 would reduce liquidity demands on market participants, decrease clearing capital requirements for broker-dealers, enhance liquidity, and/or improve the use of capital.[69]

After considering the comments, the Commission continues to believe that the transition to a T+2 standard settlement cycle will have a positive impact on the liquidity risks and costs faced by CCP members. The Commission expects that the reduction in the amount of unsettled trades and the period of time during which the CCP is exposed to risk will reduce the amount of financial resources that CCP members may have to provide to support the CCP's risk management process, both on an ordinary-course basis as well as in less predictable or procyclical instances where adverse general market conditions or a CCP member default results in a sudden liquidity demand by the CCP for additional financial resources from market participants.[70] This reduction in the potential need for financial resources should, in turn, reduce the liquidity costs and capital demands clearing broker-dealers face in the current environment and allow for improved capital utilization.

The Commission believes that shortening the standard settlement cycle to T+2 will result in reductions in liquidity risk for broker-dealers that are CCP members and additionally provide certain attendant benefits, including but not limited to, lower costs on a business and transactional basis, and improved use of financial resources.

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billion of freed capital for NSCC's members, although this analysis does not reflect the implementation of NSCC's accelerated trade guaranty, as discussed in note 27 supra and accompanying text. DTCC Letter at 2 and n.2; SIFMA at 10 n.43.

69 Fidelity at 1; FSI at 3; IDC at 1; Newill at 1.

70 The term "procyclical" is generally understood to refer to changes in risk-management practices that are positively correlated with market, business, or credit cycle fluctuations that may cause or exacerbate financial stability.

3. Benefits to Other Market Participants from a Shortened Settlement Cycle

In the T+2 Proposing Release, the Commission stated its preliminary belief that shortening the standard settlement cycle would also lead to benefits to other market participants, including introducing broker-dealers, institutional investors, and retail investors.[71] These benefits would include quicker access to funds and securities following trade execution, which should further reduce liquidity risks and financing costs faced by market participants who may use those proceeds to transact in other markets, including the derivatives markets and non-U.S. markets that already operate on a T+2 settlement cycle.[72] They would also include reduced margin charges and other fees that clearing broker-dealers may pass down to other market participants, thereby reducing transaction costs generally and freeing up capital for deployment elsewhere in the markets by those entities.[73] Commenters generally supported this belief.[74]

a. Introducing Broker-Dealers

With respect to introducing broker-dealers, one commenter stated that introducing firms would benefit from shortening the settlement cycle to T+2, including through the reduction in liquidity risk and lowered costs related to margin and other charges and fees imposed by clearing

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71 To the extent they engage in proprietary trading, clearing broker-dealers should also realize many of the same benefits described in this section, including quicker access to funds and securities following trade execution and a reduction in liquidity risk.

72 The length of the settlement cycle governs the time when the proceeds of a securities transaction may be made available to the member/participant. A mismatch in timing between the settlement cycle for the securities transaction and the settlement cycle for another market transaction, such as in the derivatives market or a non-U.S. market with a different settlement cycle, can in turn lead to liquidity risk for the member in meeting all of its settlement obligations across markets. See T+2 Proposing Release, supra note 1, 81 FR at 69251 and n.77.

73 T+2 Proposing Release, supra note 1, 81 FR at 69257-58.

74 FSI at 2; SIFMA at 15-16; ICI at 4-5; IDC at 1-2; WFA at 2-3; Wee at 1; Fidelity at 1; Newill.

brokers in association with managing credit risk. The commenter also stated that the underlying customer of an introducing firm would stand to realize significant benefits from the migration, including the more rapid returns of the proceeds of a sale of a security given the shortened settlement cycle.[75]

The Commission agrees that introducing broker-dealers would benefit from a T+2 settlement cycle. Such entities would be able to access their own funds and securities from a transaction more quickly than under the current settlement cycle, which would reduce liquidity risk and free up capital. They would also face lower costs related to margin charges and other fees that clearing brokers may pass down as part of the costs related to the clearing brokers' risk management program. As noted above, several commenters noted that clearing broker-dealers would likely benefit from reduced clearing requirements.[76] The Commission agrees that such reduced requirements could, in turn, result in reduced charges and fees for introducing broker-dealers.

b. Institutional Investors

Several commenters noted that a shortened settlement cycle would reduce funding gaps and potential additional financing costs for institutional investors resulting from mismatched settlement cycles that apply to mutual funds whose own securities settle on a different cycle than those in their portfolio.[77] Specifically, these commenters stated that, in the context of mutual funds, a shortened settlement cycle would reduce the funding gap between settlement of a mutual fund's portfolio securities (which settle on T+3) and the settlement of shares issued to investors

75 SIFMA at 12.

76 Newill at 1; DTCC Letter at 2; Fidelity at 1; ICI at 4-5.

77 ICI at 4: IDC at 1-2.

through the mutual fund itself (which settle on T+1), improving cash management for funds to meet redemptions.[78]

These comments support the Commission's belief, as initially expressed in the T+2 Proposing Release,[79] that by better aligning the settlement cycles between the underlying portfolio securities and the securities issued to investors through the mutual fund, the risk to the fund, and ultimately investors, is reduced. Under a shortened standard settlement cycle, the mutual fund will receive the proceeds of the transaction more quickly, which, in turn, will free up liquidity generally and, in particular, if there are significant new outflows or cash is needed to address other market stresses.

c. Retail Investors

Several commenters stated that a shortened standard settlement cycle would lead to benefits for retail investors, particularly through quicker access to funds and securities following trade execution. Specifically, these commenters noted that settlement of trades on a T+2 standard settlement cycle would improve investors' access to capital and reduce the need to borrow funds.[80]

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78 ICI at 4; IDC at 1-2. These commenters also noted more generally that the proposal would reduce funding gaps among all types of securities, as settlement cycles would be better aligned, including those for various types of portfolio securities such as derivatives and government bonds. For example, the settlement cycle timeframe for open-end mutual funds that settle through NSCC is generally T+1. However, the standard settlement cycle timeframe for many underlying portfolio securities held by mutual funds is T+3. Settlement timeframes for securities with non-standard settlements held by these funds may be longer than T+3. This mismatch in timing presents potential liquidity risks for such funds as market participants with respect to the receipt of portfolio proceeds and in satisfying their investor redemption obligations. See T+2 Proposing Release, supra note 1, 81 FR at 69251 n.77; Investment Company Liquidity Risk Management Programs Release No. 32315 (Oct. 13, 2016), 81 FR 82142, 82143 n.9 (Nov. 18, 2016).

79 See T+2 Proposing Release, supra note 1, 81 FR at 69257 n.156.

80 WFA at 2-3; Wee at 1; Fidelity at 1.

Several commenters noted that retail investors would benefit from a shorter standard settlement cycle because of reduced risk in the settlement process. One commenter stated that different settlement cycles have the potential to contribute towards failed trades for an investor who, for example, attempts to buy a mutual fund upon selling an exchange-traded fund. This can be especially true when an investor attempts to rebalance a portfolio of securities consisting of various securities with differing settlement cycles.[81] An additional commenter stated that retail investors, among others, would benefit from a shorter standard settlement cycle through reduced risk in the settlement process, based on the related reduction in counterparty risk and liquidity demands on market participants, decreased clearing capital requirements for broker-dealers, and harmonization of the global settlement process as many foreign securities markets already operate on a T+2 settlement cycle.[82] The Commission agrees that, like other market participants, retail investors will benefit from reduced risks arising in a shortened standard settlement cycle as a result of the reduced risks for CCPs and CCP members discussed above in Parts III.A.1 and III.A.2. The Commission further believes that reducing the number of days in the standard settlement cycle will reduce the exposure of retail investors, and institutional investors, to the risks of failure to make payment or deliver securities, thereby reducing overall risks to all investors.

In addition, one commenter cited lower transaction costs for investors as a benefit of shortening the settlement cycle to T+2, although this commenter did not provide specific data or information to support this conclusion.[83] As noted above, the Commission generally believes

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81 WFA at 2-3.

82 Fidelity at 1.

83 Newill.

that a transition to a T+2 standard settlement cycle will result in reduced costs for broker-dealers, including those whose customers are retail investors. Such broker-dealers may or may not choose to pass on the benefit of reduced costs to their retail investor customers, and therefore it is not clear that retail investors would, in all instances, experience a benefit of reduced fees or other costs charged by their broker-dealers. However, as discussed further below, the Commission generally believes that retail investors may bear few (if any) direct costs in a transition to a T+2 standard settlement cycle because their respective broker-dealers handle the back-office settlement functions of each transaction.[84] The Commission further agrees with the comments described above that moving to a T+2 standard settlement cycle should, in and of itself, result in a number of the benefits that the comments identify, including with respect to the rebalancing of an investor's portfolio or the modification of asset allocation, by reducing settlement timeframes and related risks. For example, the Commission believes that a T+2 settlement cycle will allow retail investors to gain quicker access to funds and securities following trade execution.

One commenter who focused on the concerns of retail investors stated that the Commission's proposal to transition to a T+2 settlement cycle would be "woefully insufficient" to address their needs in the current environment.[85] In discussing the impact of the T+3 standard settlement cycle on retail investors, the commenter noted that the time from order execution until the securities are exchanged for cash is a lengthy waiting process (up to five days if the process extends over a weekend) that can be frustrating and potentially damaging for investors who are

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84 For a further discussion, see Part VI.B.2 infra. As discussed further therein, it is possible that retail investors may face indirect costs from the transition, such as those passed through from broker-dealers or banks.

85 See CFA at 1. In particular, this commenter supported shortening the settlement cycle to a T+1 standard based on STP. The Commission addresses this portion of the commenter's letter regarding a standard settlement cycle shorter than T+2 further in Parts VI.D.1 and Part VI.D.2 infra.

faced with immediate and unexpected financial obligations. The commenter noted that investors may respond to this lengthy settlement process by keeping larger buffers of cash on hand, which can be costly and inefficient, or alternatively, they may borrow money short-term, often at high interest rates, to bridge the gap, which can be costly, or they may just have to wait until the transaction has settled, which can have other opportunity costs.[86] This same commenter noted that other scenarios related to the current settlement timeframe can cost investors money and impede basic transactions. For example, if an investor tries to sell shares of an ETF and then tries to buy shares of a traditional open-end mutual fund on the same day, the broker may not allow the trade due to the two-day difference in settlement between the ETF shares and the mutual fund shares. If the investor tries to make the trade, the account will be short cash for several days, which means at best, the investor would be charged interest or the buy order would not go through. The delay in settlement may cause routine rebalancing of an investor's portfolio or the modification of asset allocation to turn into a lengthy and complicated multi-step processes. In short, this commenter stated that the Commission's proposal to shorten the T+3 settlement cycle by only one day would be inadequate to address the range of retail investor challenges identified by the commenter.[87]

The Commission agrees that, all else being equal, moving to a T+1 standard settlement cycle would likely result in retail investors receiving transaction proceeds sooner than under a T+2 standard settlement cycle, and that a shorter standard settlement cycle could mitigate, or in some cases eliminate, the potential issues for retail investors identified by the commenter.[88]

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86 CFA at 2-3.

87 Id at 1, 3-5.

88 See, e.g., id. at 2-3 (identifying as issues for retail investors under the current settlement cycle the lengthy waiting period that can arise between trade execution and settlement, exposing

However, the Commission believes that shortening the standard settlement cycle to T+2 will address many of these concerns. Additionally, the Commission believes that the important risk-reducing benefits of a shortened standard settlement cycle for market participants, including retail investors, can be quickly achieved at this time with a T+2 settlement cycle because the necessary preparation (including appropriate technological and operational changes) has occurred to support moving to a T+2 standard settlement cycle. Consequently, movement at this time to a T+2 standard may be accomplished in a timely and cost-effective, manner that minimizes undue disruptions in the securities markets. As noted earlier, the near-term benefits of a T+2 standard settlement cycle include quicker access to funds and a reduction in borrowing and other transaction costs, as well as reduced risk in the settlement process and a greater ability to manage asset allocation (including the allocation challenges the commenter describes above in the context of mutual fund and exchange-traded fund security purchases). Therefore, the Commission believes, as discussed further in Part VI.D.1 below, that a transition to a T+2 standard settlement cycle will realize these important benefits in the near term in a manner that is relatively more cost effective and consistent with the current state of market participant preparedness than a transition to T+1. The Commission also notes that this belief is supported by those commenters who observed that a move to a T+2 standard settlement cycle, and the realization of risk-reducing benefits for retail and other investors, is relatively more feasible and cost effective in the near term than a T+1 transition.[89] Therefore, the Commission notes that a move to a T+2 standard settlement cycle is an appropriate step at this time. Further, the

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retail investors to the potential need to address the risk of immediate and unexpected financial obligations, as well as the mismatch in settlement cycles between the shares of an ETF and the shares of a traditional open-end mutual fund).

89 See Part VI.D.1 infra for a discussion of such comments.

movement to T+2 at this time does not foreclose future efforts to shorten the settlement cycle beyond T+2.[90]

Several other commenters raised concerns regarding how a change in the current T+3 environment could result in challenges and costs for retail investors.[91] Two commenters discussed the impact that a shortened settlement cycle would have on individuals who use paper checks to facilitate payment and transfer of funds for the settlement of securities transactions. One of these commenters observed that moving to a settlement cycle shorter than T+3 would impose hardships on such individuals, noting that the current T+3 settlement cycle already places pressure on individuals who may use paper checks instead of other modes of payment, such as electronic payment transfer systems. The commenter further observed that a T+2 settlement cycle therefore would increase such pressures as well as the likelihood of increased reliance on electronic payment transfers; the commenter also expressed concern about the potential for new risks and costs that may come from such reliance upon electronic payment transfers, including

90 See Part V infra.

91 Gellert; CSLC at 1-2; BDA at 1. In addition, one commenter stated that the Commission failed to meaningfully address how the amendment would affect smaller individual investors and instead focused on institutional market participants, primarily broker-dealers, and clearing firms. CSLC at 2. The commenter asserted that the Commission had failed to identify or analyze significant impediments with the current T+3 standard settlement cycle, and concluded by stating that it opposed the proposal until the proposal adequately takes these considerations into account. CSLC at 3. In response, the Commission notes that the T+2 Proposing Release specifically detailed both the current process by which retail investors clear and settle their securities transactions in a T+3 environment and the impact of that process on retail investors. See, e.g., T+2 Proposing Release, supra note 1, 81 FR at 69427-69428. In addition, the Commission solicited specific comment in the T+2 Proposing Release regarding the potential impact a move to T+2 could have on retail investors, including potential costs and benefits for retail investors. See id. at 69262. Further, as described herein, a number of commenters, including this commenter, submitted specific responses to the inquiries in the T+2 Proposing Release focused on retail investors. Among those commenters, a number raised specific issues related to retail investors that the Commission has addressed herein, including ways that a move to T+2 could potentially heighten or lower impediments to a national system for the prompt and accurate clearance and settlement of securities transactions.

risks and costs related to the security of personal information. In light of these potential new risks and costs, the commenter expressed a belief that a T+2 standard settlement cycle could give rise to barriers to stock ownership by retail investors.[92]

The other commenter who raised issues with respect to the use of paper checks expressed concern that the proposed amendment to Rule 15c6-1(a) would shorten the timeframe within which a broker-dealer would be required to cancel or liquidate an unpaid cash account transaction under the Federal Reserve Board's Regulation T, from the current five business days after the transaction date, to four business days after the transaction date.[93] The commenter urged regulators to ensure that the shortened settlement cycle does not negatively impact retail clients that still rely on sending checks, which may not be sent, received, processed, and cleared within four days after the transaction date.[94]

In response to these commenters, the Commission acknowledges that shortening the standard settlement cycle to T+2 may create additional costs for retail investors who choose to fund securities transactions by mailing a paper check to their broker-dealer. For example, retail investors who wish to continue using paper checks may need to deliver their checks to their broker-dealers more quickly and in a more costly manner (i.e., hand or overnight delivery as opposed to delivery via the postal service). The Commission also acknowledges that, in light of

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[92] Gellert.

[93] BDA at 1-2 (noting that under Regulation T, the term "payment period" means the number of business days in the standard securities settlement cycle in the United States, as defined in paragraph (a) of Rule 15c6-1, plus two business days). Regulation T provides that, with respect to cash account transactions, a creditor shall obtain full cash payment for customer purchases within one payment period of the date any "nonexempted security" was purchased, and that a creditor shall promptly cancel or liquidate a transaction or any part of a transaction for which the customer has not made full cash payment with the required time. 12 CFR 220.8(b)(i) and (ii)(4).

[94] BDA at 2.

such challenges, certain retail investors may need to adopt or increase their use of electronic payment methods, and that the use of electronic payment methods may introduce new costs and risks for such investors, including with respect to the protection of personal information. The Commission further acknowledges that such costs and risks could potentially impact the willingness of certain retail investors to participate in the securities markets, including via stock ownership. However, using electronic payment options may also lower existing costs to retail investors.

While recognizing the concerns raised by these commenters, however, the Commission believes that the risk-reducing benefits discussed above that will be realized by market participants, including retail investors, as a result of a shortened standard settlement cycle justify the potential costs and risks identified by the commenters. As noted above, the Commission believes that retail investors will gain quicker access to funds and securities following trade execution, which in turn will allow retail investors to re-deploy their assets more quickly and efficiently for other purposes, including additional investment and risk management. On balance, the Commission believes that this benefit is more likely to decrease rather than increase barriers to participation by retail investors in the securities markets, including through stock ownership.

Separately, while discussing the potential negative impact of a shortened settlement cycle on retail investors, one commenter asserted that shortening the standard settlement cycle to T+2 could give rise to destabilizing effects on the financial markets. In making this observation, the commenter expressed a view that shortened settlement periods result in weaker liquidity requirements for broker-dealers and market makers, as well as an increased likelihood of computerized high-volume trading that could destabilize the market.[95] In response, the Commission notes that, as discussed in Parts III.A.1, 2, and 3.a and b above, a transition to a T+2 standard settlement cycle will reduce, as opposed to heighten, liquidity risk exposure for market participants because, for a CCP, there would be fewer unsettled trades at any given point in time and a reduced time period of exposure to such trades, resulting in a CCP's reduced potential need for financial resources, which should, in turn reduce the liquidity costs for clearing broker-dealers and those market participants that rely upon the services of clearing broker-dealers.

Further, with respect to the impact a shorter settlement cycle may have on the presence of computerized high-volume trading in the financial markets, the Commission notes that the commenter has not provided information or other evidence demonstrating how an increase in the pace of trade settlement will result in an increase in the presence of computerized high-volume trading that could destabilize the financial markets. The Commission believes that amending the length of the settlement cycle will affect the manner in which post-trade processes occur, but does not expect the proposed amendment to alter the incidence of computerized trading or how such activity influences market stability. The Commission further believes that, as discussed above, a shortened standard settlement cycle is appropriate given the reduction in credit, market, and liquidity risks associated with a shorter settlement cycle. Therefore, the Commission is not persuaded that a shortened standard settlement cycle will give rise to the liquidity risk and market stability concerns raised by the commenter.

4. Cross-Border Harmonization

In the T+2 Proposing Release, the Commission noted that the proposed amendment to Rule 15c6-1(a) would harmonize the settlement cycle in the U.S. with non-U.S. markets that had

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95 Gellert.

already moved to a T+2 settlement cycle or were planning to do so.[96] In addition, the Commission discussed the potential benefits of harmonizing settlement cycles across markets, which included reducing the degree to and time during which, market participants are exposed to credit, market, and liquidity risk arising from unsettled transactions.[97]

A number of commenters cited increased global harmonization of settlement cycles as a prospective benefit of moving to a T+2 settlement cycle in the U.S.[98] One commenter stated that the benefits of harmonized settlement cycles would include increased efficiency in coordinating trading among investors across international markets and decreased operational risk because investment managers would not need to balance inconsistent settlement cycles across broad asset classes common to both U.S. and international markets.[99]

Another commenter stated that the industry would benefit from the reduction of hedge risks stemming from mismatched settlement cycles (e.g., the one day lag between settlement in Europe and settlement in the U.S.). The same commenter noted that harmonization between markets should also further reduce risk to market participants, as participants would no longer be required to choose between bearing an additional day of market risk in the European trading markets by delaying by one day the purchase of securities on European markets, or funding such

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96 T+2 Proposing Release, supra note 1, 81 FR at 69258.

97 T+2 Proposing Release, supra note 1, 81 FR at 69258, 69259, 69269.

98 DTCC Letter at 2 and 3; Fidelity at 1; FIF at 3; FSI at 3; ICI at 5-6; IDC at 1; MFA at 2; Newill at 1; SIFMA at 16; STA at 1-2; Thomson Reuters at 3 (noting further that T+2 would be consistent with the FX markets); WFA at 3; Wee at 1-2.

99 SIFMA at 16. The commenter also noted that a transition to a T+2 settlement cycle in the United States would result in over 77% of top ten markets worldwide, as calculated by market capitalization, operating in a T+2 settlement environment. Id.

a transaction with short-term borrowing, as the settlement cycle in both U.S. and European markets will be aligned.[100]

Another commenter noted that consistency in the settlement cycle across the U.S. and non-U.S. markets could help funds better manage liquidity and cash flow, which could reduce and simplify financing needs.[101] A fourth commenter stated that a further harmonized global securities settlement cycle would reduce operational risk for institutional investors by closing the gap in the settlement cycle between the U.S. and other foreign markets in which they invest, standardizing cross-border settlement processes, and fostering adoption of industry best practices.[102]

These commenters generally supported the Commission's belief that aligning the settlement cycle in the U.S. with the settlement cycle in several major non-U.S. markets that have already moved to T+2 or are planning to do so will benefit market participants. The Commission agrees that harmonization of settlement cycles may reduce the need for some market participants engaging in cross-border transactions to hedge risks stemming from mismatched settlement cycles. In addition, the Commission agrees that harmonization of the U.S. settlement cycle with the T+2 settlement cycle in certain non-US markets will reduce financing/borrowing costs for market participants who engage in cross-border transactions in both those markets and U.S. markets.[103]

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[100] FIF at 3.

[101] IDC at 1.

[102] ICI at 5.

[103] However, the Commission notes that the shortened standard settlement cycle cannot address the fact that certain non-U.S. markets may continue to face harmonization issues based on the different time zones in which the transactions occur.

5. Reduction in Systemic Risk

In the T+2 Proposing Release, the Commission noted its preliminary belief that the reductions in credit, market, and liquidity risks should reduce systemic risk, and that, as it stated in adopting Rule 15c6-1 in 1993, reducing the total volume and value of outstanding obligations in the settlement pipeline at any point in time will better insulate the financial sector from the potential systemic consequences of serious market disruptions. The Commission also noted that reducing the period of time during which a CCP is exposed to credit, market, and liquidity risk should enhance the CCP's overall ability to serve as a source of stability and efficiency in the national clearance and settlement system, thereby reducing the likelihood that disruptions in the clearance and settlement process will trigger consequential disruptions that extend beyond the cleared markets.[104]

Several commenters generally agreed with this belief, noting that shortening the standard settlement cycle to T+2 would result in reduced systemic risk or enhanced financial stability.[105] For example, one commenter strongly agreed with the Commission's description of the systemic risk benefits from moving to T+2, noting that, in light of the financial resource and liquidity demands facing CCPs and other market participants during times of market volatility and stress, a shorter settlement cycle should help meaningfully reduce those demands. The commenter also agreed with the Commission that reducing the total volume and value of obligations in the

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[104] T+2 Proposing Release, supra note 1, 81 FR at 69257. See also Parts III.A.1 and III.A.2, supra.

[105] Bloomberg at 1; DTCC Letter at 2; FIF at 2; FSR; FSI at 2; Kim at 1; MFA at 1-2; Newill at1; SIFMA at 15; WFA at 2. An additional commenter noted generally that shortening the settlement cycle would help protect market participants from credit, market, and liquidity risks, reduce the threat of systemic risk, and hasten the processing of investors' transactions, but continued to advocate for changes beyond T+2. CFA at 3. See also T+2 Proposing Release, supra note 1, 81 FR at 69258.

settlement pipeline at any given time would help minimize the systemic consequences of serious market disruptions. The commenter further noted that minimizing risk in the context of CCPs can limit the circumstances in which a disruption in the clearance and settlement system will extend to other aspects of the market.[106] Another commenter identified one benefit of the shortened settlement cycle as a more stable financial system, based on reduced counterparty risk and the amount of capital required to be maintained by clearing firms to mitigate such risk, as well as less operational and systemic risk through reduced exposure between the parties to a trade, between the counterparties to the clearinghouse, and for the clearinghouse itself.[107]

The Commission agrees with commenters that the reduction in credit, market, and liquidity risks resulting from a shortened settlement cycle should reduce systemic risk. Because of the potential procyclical impact on financial resource and other liquidity demands by CCPs and other market participants during times of market volatility and stress, efforts to reduce these liquidity demands through a shorter settlement cycle are expected to reduce systemic risk.[108]

The Commission noted in the T+2 Proposing Release that the reduction in exposure to credit, market, liquidity, and systemic risk arising from fewer unsettled transactions at any one time due to a shorter settlement cycle should improve the stability of the U.S. markets.[109] One commenter agreed with the Commission and stated that CCPs would be better positioned to serve as a source of stability and efficiency within the clearance and settlement system when there is a shorter period of time during which they are exposed to credit, market, and liquidity risks, because the shorter period of time limits the volume of trades subject to the guarantee at

106 SIFMA at 15.

107 FSI at 2.

108 T+2 Proposing Release, supra note 1, 81 FR at 69258.

109 T+2 Proposing Release, supra note 1, 81 FR at 69257.

any one time.[110] Another commenter stated that the decrease in counterparty and mark-to-market risk, which are typically magnified during times of highly volatile markets, would add to the overall stability of the financial system.[111]

The Commission agrees with these commenters that reducing the period of time during which a CCP is exposed to credit, market, and liquidity risk should enhance the overall ability of the CCP to serve as a source of stability and efficiency in the national clearance and settlement system, thereby reducing the likelihood that disruptions in the clearance and settlement process will trigger consequential disruptions that extend beyond the cleared markets.[112]

6. Leveraging and Advancement of Existing Technology, Operations, and Market Infrastructure

In the T+2 Proposing Release, the Commission stated its preliminary belief that significant advancements in technology and the changes in market infrastructures and operations that have occurred since 1993, which are widely assimilated into market practices, provide a basis to accommodate shortening the standard settlement cycle to T+2.[113] The Commission further noted in the T+2 Proposing Release that it has observed that market participants have

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110 SIFMA at 15.

111 ICI at 18.

112 See T+2 Proposing Release, supra note 1, 81 FR at 69258; see also CCA Standards Adopting Release, supra note 14, 81 FR at 70849. Clearing members are often members of larger financial networks, and the ability of a covered clearing agency to meet payment obligations to its members can directly affect its members' ability to meet payment obligations outside of the cleared market. Thus, management of liquidity risk may mitigate the risk of contagion between asset markets.

113 See T+2 Proposing Release, supra note 1, 81 FR at 69258.

begun to accelerate collective progress to prepare for a transition to a T+2 settlement cycle.[114] Several commenters expressed general support for this view.[115]

One commenter stated that, with current computer and software technology, a move to T+2 is feasible and sensible.[116] An additional commenter supported the Commission's preliminary belief, noting that market participants already have invested in evaluating and preparing for a potential move to a T+2 standard settlement cycle, thus making the industry well-positioned to capitalize on those efforts and complete the transition to a shorter settlement cycle.[117] The commenter further noted that the industry has made incremental improvements in batch processing systems as the technology to do so has become available, and has moved to real-time processing where logical (e.g., NSCC Trade Reporting).[118]

The Commission agrees with the comments that the current state of technology and market infrastructure and operations support amending Rule 15c6-1(a) to establish a T+2 settlement cycle. As noted by commenters, market participants are actively working to transition to a T+2 settlement cycle and have made investments in technology and operations to do so. The Commission believes that these advancements in technology and changes in market infrastructures and operations, which have occurred since 1993 generally and in conjunction with recent efforts to transition to a T+2 standard settlement cycle, support shortening the settlement cycle.

114 Id.

115 Kim at 1; SIFMA at 14; DTCC Letter at 4.

116 Kim at 1.

117 SIFMA at 14.

118 SIFMA at 14.

Several commenters also expressed support for shortening the standard settlement cycle to T+2 by noting that a shorter settlement cycle will promote operational efficiencies.[119] In the T+2 Proposing Release the Commission noted that a shortened settlement cycle may necessitate incremental increases in utilization by certain market participants of Matching/ETC Providers, with a focus on improving and accelerating affirmation/confirmation processes, as well as relative enhancements to efficiencies in the services and operations of the Matching/ETC Providers themselves.[120] The Commission further stated that it preliminarily expects that these changes may be necessary in a T+2 environment because certain steps related to the allocation, confirmation, and affirmation of institutional trades will need to occur earlier in the settlement cycle compared to in a T+3 environment.[121]

Consistent with this view, one commenter noted that a T+2 standard settlement cycle would motivate market participants to tighten their operational processes. This commenter stated that it expects institutional investors to improve the quality of settlement instructions and static settlement data maintenance, and increase automation and STP rates with their broker-dealers and custodian banks.[122] This commenter added that this would result in higher numbers of on-time affirmed, confirmed, and settled trades.[123] Similarly, another commenter stated a T+2 standard settlement cycle would lead to enhancements and compression of batch processing systems.[124]

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119 DTCC Letter at 2; IDC at 1; SIFMA at 15.

120 T+2 Proposing Release, supra note 1, 81 FR at 69258.

121 Id.

122 ICI at 5.

123 Id.

124 SIFMA at 14.

Another commenter noted that it believes that a shorter settlement cycle would lead to greater use of automation in the settlement process.[125] This commenter stated that automation in the settlement process will enable STP and contribute to increases in same-day affirmation rates and increases in settlement rates, with an attendant decrease in exceptions that lead to fails, and that automation will also eliminate inefficient procedures for clearance and settlement and lower overall costs to investors.[126] In addition, this commenter noted that it believes that automation would not only enable a T+2 standard settlement cycle but will also facilitate moving to an even shorter settlement cycle.[127]

The Commission agrees with the comments that moving to a T+2 settlement cycle will lead market participants to develop and utilize more efficient operational processes. The Commission noted in the T+2 Proposing Release that technological and operational changes necessary to support a T+2 standard settlement cycle would in many cases require only incremental modifications to existing market infrastructures and systems and processes. Some comments anticipated that the changes necessary to support a T+2 standard settlement cycle may improve operational efficiency.[128]

B. Paragraphs (b), (c), and (d) of Rule 15c6-1

In the T+2 Proposing Release, the Commission requested comment as to whether the Commission should consider any amendments to paragraphs (b), (c), and (d) of Rule 15c6-1.[129]

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125 Bloomberg at 2-3.

126 Id. at 2. The commenter also noted that its trade matching service will offer solutions to move manual clients to an automated work flow, which will minimize exceptions and reduce costly inefficiencies.

127 Id. at 2-3.

128 See Bloomberg at 2-3; SIFMA at 14; ICI at 5.

129 See T+2 Proposing Release, supra note 1, 81 FR at 69263-64.

No commenters requested changes to those paragraphs, and the Commission is not amending those portions of the Rule.

One commenter requested clarification regarding the application of Rule 15c6-1(d) and the Commission's statement in the T+2 Proposing Release regarding what is sometimes referred to as the "override provision" of Rule 15c6-1(a) that permits broker-dealers to agree expressly at the time of the transaction to settlement beyond the standard settlement cycle.[130] Rule 15c6-1(d) provides that, for purposes of paragraphs (a) and (c) of the rule, parties to a contract shall be deemed to have expressly agreed to an alternate date for payment of funds and delivery of securities at the time of the transaction for a contract for the sale for cash of securities pursuant to a firm commitment offering if the managing underwriter and the issuer have agreed to such date for all securities sold pursuant to such offering and the parties to the contract have not expressly agreed to another date for payment of funds and delivery of securities at the time of the transaction.[131] In raising its concerns, the commenter expressed the belief that current market practices indicate that extended settlement periods beyond the standard settlement cycle are applied for the settlement of certain primary firm commitment offerings, particularly those in the convertible debt, preferred equity, options on securities and fixed income markets.[132] The commenter further observed that, in such markets, issuers, underwriters and the initial purchasers

[130] SIFMA at 19-20 (discussing footnote 153 of the T+2 Proposing Release). Specifically, Rule 15c6-1(a) allows a broker-dealer to agree that settlement will take place in a period longer. than the T+3 standard settlement cycle if expressly agreed to by the parties at the time of the transaction.

[131] 17 CFR 240.15c6-1(d). See also Prospectus Delivery; Securities Transaction Settlement, Exchange Act Release No. 35705 (May 11, 1995), 60 FR 26604, 26612 (May 17, 1995) ("Rule 15c6-1(d) Adopting Release").

[132] SIFMA at 19.

of those securities have increasingly relied on an extended settlement cycle pursuant to Rule 15c6-1(d) for many primary distributions.

In light of this belief regarding current market practices for many primary distributions, the commenter expressed concern over a statement made by the Commission in a footnote of the T+2 Proposing Release regarding the override provision in Rule 15c6-1(a). Specifically, in the T+2 Proposing Release, the Commission noted that at the time Rule 15c6-1(a) was adopted, the Commission stated its belief that the usage of the override provision of Rule 15c6-1(a) was intended to apply only to unusual transactions, such as seller's option trades that typically settle as many as sixty days after execution as specified by the parties to the trade at execution. In the T+2 Proposing Release, the Commission stated its preliminary belief that the use of this provision should continue to be applied in limited cases to ensure that the settlement cycle set by Rule 15c6-1(a) remains a standard settlement cycle.[133] In response to this statement, the commenter raised the concern that such a belief did not match actual market practices and may result in unintended negative consequences.[134] Accordingly, the commenter requested that, in adopting a T+2 standard settlement cycle, the Commission clarify that parties to a primary offering may continue the practice of agreeing to extended settlements in accordance with Rule 15c6-1 in appropriate cases, including those identified by the commenter. In addition, the commenter requested that the Commission clarify that the use of such extended settlements in primary offerings of these securities need not be limited to unusual circumstances or confined to situations where settlement on a T+2 basis is not feasible.[135]

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[133] T+2 Proposing Release, supra note 1, 81 FR at 69257 n.153 (quoting T+3 Adopting Release, supra note 15, 58 FR at 52902).

[134] SIFMA at 20.

[135] Id.

The commenter's concern applies to two distinct, but related, parts of Rule 15c6-1. One part is the general override provision for extended settlement set forth in Rule 15c6-1(a) and the other part is the extended settlement provision specific to firm commitment primary offerings in Rule 15c6-1(d). In response to the commenter, the Commission notes that its statement, as expressed in the footnote in the T+2 Proposing Release, is only with respect to the override provision in Rule 15c6-1(a) and does not relate to the application of Rule 15c6-1(d) in the specific context of firm commitment offerings.[136]

C. Impact on Other Commission Rules and Guidance; Relevant No-Action and Exemptive Relief

The Commission stated in the T+2 Proposing Release that it reviewed its existing regulatory framework to consider the potential impact a T+2 standard settlement cycle may have on other Commission rules. Some Commission rules require market participants to perform certain regulatory obligations on settlement date or within a specified number of business days after the settlement date, or are otherwise keyed off of settlement date. Accordingly, shortening the standard settlement cycle to T+2 could have ancillary consequences for how market participants comply with these existing regulatory obligations. In response to the T+2 Proposing Release, several commenters identified specific rules, as well as related guidance and no-action and exemptive relief, on which a T+2 standard settlement cycle may have an impact.

1. Regulation SHO

In the T+2 Proposing Release, the Commission identified several provisions of Regulation SHO under the Exchange Act that may be impacted by the adoption of a T+2 settlement cycle. While not referencing specific settlement timeframes (i.e., T+3), certain

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136 See Rule 15c6-1(d) Adopting Release, supra note 131, 60 FR at 26612.

provisions of Regulation SHO key off of "trade date" and "settlement date" to determine the timeframes for compliance relating to sales of equity securities and fails to deliver on settlement date. In particular, Rule 204 of Regulation SHO ("Rule 204") provides that a participant[137] of a registered clearing agency must deliver securities to a registered clearing agency for clearance and settlement on a long or short sale in any equity security by settlement date, or if a participant has a fail to deliver position, the participant shall, by no later than the beginning of regular trading hours on the applicable close-out date, immediately close out the fail to deliver position by borrowing or purchasing securities of like kind and quantity.[138] If a fail to deliver position results from a short sale, the participant must close out the fail to deliver position by no later than the beginning of regular trading hours on the settlement day following the settlement date.[139]

Shortening the standard settlement cycle to T+2 will also impact the application of Rule 200(g)(1) of Regulation SHO as it pertains to loaned but recalled securities.[140] Pursuant to Rule 200(g), a broker-dealer may only mark a sale as "long" if the seller is "deemed to own" the security being sold under paragraphs (a) through (f) of Rule 200,[141] and either (i) the security is in the broker-dealer's physical possession or control; or (ii) it is reasonably expected that the

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[137] For purposes of Regulation SHO, the term "participant" has the same meaning as in Section 3(a)(24) of the Exchange Act, 15 U.S.C. 78c(a)(24). See Amendments to Regulation SHO, Exchange Act Release No. 60388 (July 27, 2009), 74 FR 38266, 38268 n.34 (July 31, 2009) ("Rule 204 Adopting Release").

[138] 17 CFR 242.204(a). Under the current T+3 standard settlement cycle, the close-out for short sales is required by the beginning of regular trading hours on T+4. If a fail to deliver results from a long sale or a sale from bona fide market making activity, the participant must close-out the fail to deliver position by no later than the beginning of regular trading hours on the third consecutive settlement day following the settlement date (i.e., T+6). 17 CFR 242.204(a)(1) and (a)(3) respectively.

[139] Id.

[140] See 17 CFR 242.200(g).

[141] See 17 CFR 242.200(a)–(f).

security will be in the broker-dealer's possession or control by settlement of the transaction.[142] In order to clarify the operation of Rule 200(g)(1) in the context of loaned but recalled securities, the Commission has stated that:

> …if a person that has loaned a security to another person sells the security and a bona fide recall of the security is initiated within two business days after trade date, the person that has loaned the security will be 'deemed to own' the security for purposes of Rule 200(g)(1), and such sale will not be treated as a short sale for purposes of Rule 204T. In addition, a broker-dealer may mark such orders as 'long' sales provided such marking is also in compliance with Rule 200(c) of Regulation SHO.[143]

Thus, broker-dealers that initiate bona fide recalls[144] on T+2 of loaned securities that sellers are "deemed to own" under paragraphs (a) through (f) of Rule 200 may currently mark such orders as "long."[145] The Commission limited this application of Rule 200(g)(1) regarding the marking of sales of loaned securities "long" to those in which bona fide recalls are initiated

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[142] See 17 CFR 242.200(g)(1).

[143] See Rule 204 Adopting Release, supra note 137, 74 FR at 38270 at n.55 (citations omitted).

[144] Because a recall must be initiated by no later than the business day preceding the settlement date to be delivered prior to the required Rule 204 close-out, any cancellation or modification of a recall of a security would not constitute a bona fide recall.

[145] In the release adopting the "naked" short selling antifraud rule, Rule 10b-21, 17 CFR 240.10b-21, the Commission stated that "a seller would not be making a representation at the time it submits an order to sell a security that it can or intends to deliver securities on the date delivery is due if the seller submits an order to sell securities that are held in a margin account but the broker-dealer has loaned out the shares pursuant to the margin agreement. Under such circumstances, it would be reasonable for the seller to expect that the securities will be in the broker-dealer's physical possession or control by settlement date." See "Naked" Short Selling Antifraud Rule, Exchange Act Release No. 58774 (Oct. 14, 2008), 73 FR 61666, 61672 (Oct. 17, 2008). Thus, a seller of securities would not be deemed to be deceiving a broker-dealer under Rule 10b-21 if the seller submits a sell order to an executing broker-dealer and informs the executing broker-dealer that the seller's shares are in the physical possession or control of a prime broker, but neither the seller nor the executing broker-dealer knows or has reason to know that the prime broker has loaned out the securities pursuant to a margin agreement. The Commission notes that this interpretation, which concerns whether a seller has made a misrepresentation regarding the deliverability of its securities in time for settlement, does not apply to rules other than Rule 10b-21.

on or before the business day preceding settlement date under the current T+3 settlement cycle because the Commission believed that, pursuant to industry standards for loaned but recalled securities, such recalls would likely be delivered within three business days after initiation of a recall.[146] As a result, in a T+3 environment, recalled securities would be available by T+5 to close out the fail to deliver on a "long" sale, or before the close-out for fails on sales marked "long" is otherwise required by Rule 204 (i.e., no later than the beginning of regular trading hours on T+6).

The Commission sought comment generally on which, if any, Commission rules (including Regulation SHO) would need to be amended, and whether there is a need to provide interpretive guidance concerning any Commission rules, to accommodate a T+2 standard settlement cycle. In addition, the Commission sought comment on operational issues that might arise by the application of Rule 200(g) of Regulation SHO relating to loaned but recalled securities being recalled on T+1 instead of T+2. The Commission received five comment letters relevant to the discussion of Regulation SHO in the T+2 Proposing Release.[147]

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146 See Master Securities Loan Agreement ("MSLA"), Paragraph 6.1(a), discussing the termination of a loan of securities ("Unless otherwise agreed, either party may terminate a Loan on a termination date established by notice given to the other party prior to the Close of Business on a Business Day. The termination date established by a termination notice shall be a date no earlier than the standard settlement date that would apply to a purchase or sale of the Loaned Securities (in the case of notice given by Lender) or the noncash Collateral securing the Loan (in the case of a notice given by Borrower) entered into at the time of such notice, which date shall, unless Borrower and Lender agree to the contrary, be (i) in the case of Government Securities, the next Business Day following such notice and (ii) in the case of all other Securities, the third Business Day following such notice"). A sample MSLA can be found at http://www.sec.gov/Archives/edgar/data/59440/000095014405003873/g94498exv10w1.htm.

147 FSR at 4; Fidelity at 3-4; SIFMA at 17-18; Thomson Reuters at 2; Guinn. One of these commenters expressed concerns about short selling generally and the negative effect of short selling on the market, but did not express a view on Regulation SHO. See Guinn.

Several commenters agreed with the Commission's preliminary views that shortening the settlement cycle to T+2 would impact other rules, and in particular, compliance with Regulation SHO.[148] Three commenters acknowledged that the close-out periods required by Rule 204 will accelerate because the Rule 204 close-out periods are measured from settlement date,[149] with one of the three raising the specific concern that the shorter timeframe may impact customers who do not make timely deliveries.[150] Despite this compression in the compliance timeframes under Rule 204, two of these commenters agreed with the Commission that because the text of Rule 204 does not explicitly reference T+3 as the standard "settlement date," the rule is therefore unaffected by the amendment to Rule 15c6-1.[151] Three commenters also agreed that modification of existing interpretation or guidance concerning Regulation SHO was appropriate.[152] Two of these commenters specifically encouraged the Commission to revise the staff's Frequently Asked Questions on Regulation SHO on the Commission's website to clarify the implications of a move to T+2 settlement cycle and, in particular, that the close-out periods will shorten by a single day when measured from the trade date.[153]

Several commenters noted the potential consequences to the securities lending markets, particularly with respect to recalling loans to settle transactions.[154] One of these commenters

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148 SIFMA at 17; Fidelity at 3-4; FSR at 4; Thomson Reuters at 2.

149 SIFMA at 17; Fidelity at 3; FSR at 4.

150 FSR at 4.

151 SIFMA at 17; Fidelity at 3.

152 SIFMA at18; Fidelity at 3; Thomson Reuters at 2.

153 SIFMA at 18; Fidelity at 3. See also Division of Market Regulation: Responses to Frequently Asked Questions Concerning Regulation SHO, available at https://www.sec.gov/divisions/marketreg/mrfaqregsho1204.htm.

154 SIFMA at 18; Fidelity at 3; Thomson Reuters at 2.

also raised concern that there would likely be an operational impact to stock loan departments in terms of policies and procedures and a need to train staff to adjust to a shortened recall cycle.[155] Two of these commenters believed that security lenders, security borrowers, and service providers are currently addressing the impact of a shortened settlement cycle on their business models and trading strategies, and in particular, that the move to T+2 will shorten the loan recall period by one day.[156] However, one of these two commenters stated that industry participants recognize and support the need for the move to T+2 settlement, despite the implication that this move will necessarily shorten the recall period by one day, and are prepared to make the necessary operational adjustments to accommodate this shortened period. These changes, this commenter believed, were anticipated as part of the move to T+2 and its clients have been preparing accordingly.[157] Both of these commenters recommended the Commission modify its interpretation or guidance regarding the recall period so that it reflects the consequences of the move to T+2.[158]

The Commission acknowledges that the amendment to Rule 15c6-1, as adopted, will operate to reduce the timeframes to effect a close-out under Rule 204. For example, the existing close-out requirement for fail to deliver positions resulting from short sales would be reduced from T+4 to T+3 based on the existing definition of settlement date in Rule 204.[159] Similarly, with regard to fails to deliver resulting from long sales or sales from bona fide market making activity, the existing close-out requirement would be reduced from T+6 to T+5. After

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155 Thomson Reuters at 2.

156 SIFMA at 18; Fidelity at 4.

157 SIFMA at 18.

158 SIFMA at 18; Fidelity at 4.

159 See 17 CFR 242.204(g)(1).

considering comments, in particular that industry participants stated that they have either already anticipated the shortening of the Regulation SHO close-out period or are prepared to make the necessary operational adjustments, the Commission is not making any changes to the rule text of Regulation SHO.[160]

The Commission believes, however, that, to the extent that customers have not made timely deliveries and have caused a fail to deliver by a broker-dealer, any indirect impacts on such customers are warranted.[161] In addition, the Commission believes that a compliance date of September 5, 2017 will provide retail investors with time to become informed – either directly or through their broker-dealers – of the change to a T+2 standard settlement cycle and determine what changes to their own processes and behaviors may be necessary to participate in the market under a shorter settlement cycle.

With regard to commenters' request to modify guidance regarding the recall of loaned securities to reflect the consequences of the move to T+2, the adoption of a T+2 settlement cycle means that bona fide recalls initiated on T+2 as described above would likely not be delivered before the close-out requirement for fails on sales marked "long" under Rule 204 (i.e., no later than the beginning of regular trading hours on T+5 under a T+2 settlement cycle).[162] As a result,

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160 See 17 CFR 200 et seq.

161 In the Rule 204 Adopting Release, the Commission recognized that requiring broker-dealers to close-out fails to deliver promptly after they occur may result in costs to certain participants, but believed that "such costs are limited and are justified by the fact that the rule will continue our efforts to achieve our goals of reducing fails to deliver by maintaining the reductions in fails to deliver achieved by the adoption of temporary Rule 204T, as well as other actions taken by the Commission, and addressing potentially abusive 'naked' short selling and, thereby help restore, maintain, and enhance investor confidence in the markets." Rule 204 Adopting Release, supra note 137, 74 FR at 38286.

162 The Commission notes that a participant may not offset the amount of its fail to deliver position with shares that the participant receives or will receive during the applicable close-out date (i.e., during T+4 or T+6, as applicable, under a T+3 settlement cycle, or during T+3 or T+5,

the Commission is now clarifying that recalls of loaned securities that are initiated by no later than the settlement day before the settlement date may be marked "long," provided the seller is otherwise net long in accordance with Rule 200(c) of Regulation SHO.[163] This clarification should help ensure that loaned but recalled securities would be available by T+4 before the close-out period for fails on sales marked "long" would otherwise be required by Rule 204 (i.e., no later than the beginning of regular trading hours on T+5). Specifically, in a T+2 settlement cycle, a broker-dealer seeking to mark an order "long" for loaned but recalled securities would need to initiate a bona fide recall of a security on the settlement day before the settlement date (i.e., T+1), provided the seller is also net long under Rule 200(c) of Regulation SHO. Otherwise, the general requirements of Rule 200 of Regulation SHO would govern, and sales of loaned securities could only be marked "long" if the seller is "deemed to own" the security being sold and either (i) the security is in the broker-dealer's physical possession or control; or (ii) it is reasonably expected that the security will be in the broker-dealer's possession or control by settlement of the transaction.[164]

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as applicable, under a T+2 settlement cycle) but must take affirmative action, by borrowing or purchasing securities of like kind and quantity, at or before the beginning of regular trading hours on the applicable close-out date. See Rule 204 Adopting Release, supra note 137, 74 FR at 38272.

[163] The staff's Frequently Asked Questions regarding Regulation SHO include some non-substantive introductory language that references specific settlement dates. In response to commenters' request that such language be updated following adoption of the shortened settlement cycle, the Commission directs the staff to review the document and make updates as necessary and appropriate.

[164] See 17 CFR 242.200(g).

2. Financial Responsibility Rules under the Exchange Act

As noted in the T+2 Proposing Release, certain provisions of the broker-dealer financial responsibility rules under the Exchange Act[165] reference explicitly or implicitly the settlement date of a securities transaction. For example, Rule 15c3-3(m) provides that if a broker-dealer executes a sell order of a customer (other than an order to execute a sale of securities for which the seller does not own) and if for any reason whatever the broker-dealer has not obtained possession of the securities from the customer within 10 business days after the settlement date, the broker-dealer must immediately close the transaction with the customer by purchasing securities of like kind and quantity.[166] Settlement date is also referenced in paragraph (c)(9) of Exchange Act Rule 15c3-1,[167] which explains what it means to "promptly transmit" funds and "promptly deliver" securities within the meaning of paragraphs (a)(2)(i) and (a)(2)(v) of Rule 15c3-1.[168]

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165 The term "financial responsibility rules," for purposes of this release, includes any rule adopted by the Commission pursuant to Sections 8, 15(c)(3), 17(a), or 17(e)(1)(A) of the Exchange Act, any rule adopted by the Commission relating to hypothecation or lending of customer securities, or any rule adopted by the Commission relating to the protection of funds or securities. The financial responsibility rules include Exchange Act Rules 15c3-1 (17 CFR 240.15c3-1), 15c3-3 (17 CFR 240.15c3-3), 17a-3 (17 CFR 240.17a-3), 17a-4 (17 CFR 240.17a-4), 17a-5 (17 CFR 240.17a-5), 17a-11 (17 CFR 240.17a-11), and 17a-13 (17 CFR 240.17a-13).

166 17 CFR 240.15c3-3(m). However, paragraph (m) of Rule 15c3-3 provides that the term "customer" for the purpose of paragraph (m) does not include a broker or dealer who maintains an omnibus credit account with another broker or dealer in compliance with Rule 7(f) of Regulation T (12 CFR 220.7(f)).

167 17 CFR 240.15c3-1(c)(9).

168 17 CFR 240.15c3-1(a)(2)(i), (a)(2)(v). The concepts of promptly transmitting funds and promptly delivering securities are incorporated in other provisions of the financial responsibility rules, including paragraphs (k)(1)(iii), (k)(2)(i), and (k)(2)(ii) of Rule 15c3-3 (17 CFR 240.15c3-3(k)(1)(iii)), (k)(2)(i), (k)(2)(ii)), paragraph (e)(1)(A) of Rule 17a-5 (17 CFR 240.17a-5(e)(1)(A)), and paragraph (a)(3) of Rule 17a-13 (17 CFR 240.17a-13(a)(3)).

The Commission requested comment regarding the potential impact that shortening the standard settlement cycle from T+3 to T+2 may have on the ability of broker-dealers to comply with the financial responsibility rules. One commenter described certain requirements provided in Rule 15c3-3(m), and stated that it did not believe a change to that rule is required in order to support migration to T+2.[169] A second commenter stated that shortening the settlement cycle by one day will reduce the number of days (from 13 business days to 12 business days) a broker-dealer will have under Rule 15c3-3(m) to obtain possession of the securities or close out a customer's transaction, possibly to the detriment of the customer.[170]

The Commission acknowledges that shortening the standard settlement cycle to T+2 will effectively reduce the number of days (from 13 business days to 12 business days) that a broker-dealer will have to obtain possession of customer securities before being required to close out a customer transaction under Rule 15c3-3(m). The Commission notes that the operations supporting the processing of customer orders by broker-dealers and the technology supporting those operations have developed substantially since 1972, when the Commission adopted paragraph (m) of Rule 15c3-3.[171] The Commission believes that these developments have resulted in a lower frequency of broker-dealers failing to obtain possession of the securities from their customers within 10 business days after the settlement date. Therefore, the Commission believes that these developments in technology and broker-dealer operations diminish the potential for customers to be adversely affected by the change from 13 business days to 12 business days. Accordingly, the Commission does not believe that the change from 13 business

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169 SIFMA at 22.

170 FSR at 3-4.

171 See Exchange Act Release No. 9882 (November 17, 1972), 37 FR 25224 (November 29, 1972).

days to 12 business days will materially burden broker-dealers or their customers, and the Commission does not believe that it is necessary to amend Rule 15c3-3(m) at this time.

3. Exchange Act Rule 10b-10

Exchange Act Rule 10b-10 requires a broker-dealer to give or send a customer a written confirmation disclosing information relevant to the transaction "at or before completion of [the] transaction."[172] Rule 10b-10 does not directly refer to the settlement cycle but instead defines the term at or before "completion of the transaction" by reference to Exchange Act Rule 15c1-1.[173] Generally, Rule 15c1-1 defines "completion of the transaction" to mean the time when: (i) a customer is required to deliver the security being sold; (ii) a customer is required to pay for the security being purchased; or (iii) a broker-dealer makes a bookkeeping entry showing a transfer of the security from the customer's account or payment by the customer of the purchase price.[174]

As the Commission noted in the T+2 Proposing Release, while a confirmation must be sent "at or before completion" of the transaction, Commission rules do not require that the customer receive a confirmation prior to settlement.[175] When adopting Rule 15c6-1 in 1993 to establish a T+3 standard settlement cycle, the Commission noted that broker-dealers typically send customer confirmations on the day after trade date.[176] In the T+2 Proposing Release, the Commission stated that it understands that, while broker-dealers may continue to send physical customer confirmations on the day after the trade date, broker-dealers may also send electronic confirmations to customers on the trade date. Accordingly, the Commission noted its

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172 17 CFR 240.10b-10(a).

173 See 17 CFR 240.10b-10(d)(1).

174 See 17 CFR 240.15c1-1(b).

175 T+2 Proposing Release, supra note 1, 81 FR at 69261.

176 T+3 Adopting Release, supra note 15, 58 FR at 52908.

preliminary belief that implementation of a T+2 settlement cycle will not create problems with regard to a broker-dealer's ability to comply with the requirement under Rule 10b-10 to send a confirmation "at or before completion" of the transaction, but acknowledged that broker-dealers will have a shorter timeframe to comply with the requirements of Rule 10b-10 in a T+2 settlement cycle.[177]

The Commission received one comment pertaining to certain no-action letters and exemptive relief that allow a broker-dealer providing a dividend reinvestment program ("DRIP") to confirm automatic dividend reinvestments on monthly account statements in lieu of the trade-by-trade confirmations generally required by Rule 10b-10.[178] This commenter stated that moving to a T+2 standard settlement cycle does not directly conflict with the flexibility afforded by the relief that has been granted, but nonetheless questioned whether the recipients of such relief would be able to continue to rely on it given that the requesting letters typically include a detailed description of the program operations, including reference to their operation within a T+3 settlement cycle.[179]

The Commission agrees with the commenter that a firm should not be deemed to have departed from the procedures described in the applicable no-action letter or exemptive relief regarding the application of Rule 10b-10 to DRIP transactions solely by reason of the firm's transitioning to a shorter settlement cycle and operating the program on a T+2 settlement cycle.

4. Prime-Broker No-Action Letter

The Commission received two comment letters discussing a no-action letter issued by

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177 T+2 Proposing Release, supra note 1, 81 FR at 69261.

178 SIFMA at 21.

179 Id.

Commission staff known as the "Prime Broker No-Action Letter."[180] In particular, the commenters noted that one of the important rights that prime brokers hold under the Prime Broker No-Action Letter is the right to "disaffirm" all previously affirmed institutional trades of a customer reported by executing brokers to the prime broker for clearance and settlement, without which the prime broker would be responsible for settling the transaction.[181] One commenter stated that, without industry-wide consensus to change common technology platforms currently used in the industry, the move to a T+2 settlement cycle is likely to shorten the cutoff time frame for prime brokers to disaffirm trades, with the cutoff time moving from T+2 to the morning of T+1.[182] The commenter further stated that moving to an earlier cutoff time for disaffirming trades decreases prime brokers' ability to manage their exposure to risk (vis-à-vis customers) that arises from margin calls issued by prime brokers on T+1.[183]

Both commenters acknowledged that changes to the Prime Broker No-Action Letter were not necessarily a prerequisite to shortening the standard settlement cycle to T+2. However, the commenters also noted that it would be helpful for the Commission to revisit this guidance to ensure that it reflects current market practices, including the shortened settlement cycle.[184] In

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[180] Prime Broker Committee, SEC No-Action Letter (Jan. 25, 1994), available at https://www.sec.gov/divisions/marketreg/mr-noaction/pbroker012594-out.pdf (discussed in SIFMA at 18-19 and Fidelity at 4).

[181] SIFMA at 18-19; Fidelity at 4. One commenter further noted that, generally, the prime broker's right to disaffirm has provided an incentive for speedy affirmation of such trades, as evidenced in the high prime-broker same-day affirmation rate, while still permitting the prime broker to manage its risk vis-à-vis the customer. SIFMA at 19.

[182] SIFMA at 19.

[183] Id.

[184] SIFMA at 17, 19; Fidelity at 4.

addition, one commenter stated that certain prime brokers, together with Omgeo[185] and The Depository Trust & Clearing Corporation ("DTCC"), are meeting to discuss the potential impact of a move to a shorter settlement cycle on prime broker trade processing, particularly as it relates to the ability to effectuate a disaffirmation from a technology perspective.[186] Finally, the commenter stated that it supports ongoing efforts by Commission staff to evaluate potential updates to the Prime Broker No-Action Letter, but notes that industry groups are continuing their work to operationalize the processes contemplated in a T+2 environment and consider required changes to the agreements between prime brokers and executing brokers.[187]

The Commission acknowledges the commenters' views that the move to a T+2 standard settlement cycle may, in the absence of additional changes to industry practices, result in an earlier cutoff time for prime brokers to disaffirm trades of customers reported by executing brokers. Additionally, the Commission notes that the comments also suggest that the industry is currently considering how best to operationalize the relevant prime brokerage processes in a T+2 standard settlement cycle, and that the comments do not recommend specific changes or modifications to the Prime Broker No-Action Letter. The Commission expects that its staff will consider whether modifications to the Prime Broker No-Action letter are appropriate in connection with industry implementation of the T+2 standard settlement cycle.

5. Prospectus Delivery

In the T+2 Proposing Release, the Commission requested comment on whether the adoption of a T+2 settlement cycle would create any legal or operational concerns for issuers or

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185 Omgeo is an exempt clearing agency that currently provides matching and ETC services for the U.S. equity markets. See note 24 and accompanying text supra.

186 SIFMA at 19.

187 Id.

broker-dealers related to their ability to comply with the prospectus delivery obligations under the Securities Act.[188] As noted in the T+2 Proposing Release, Securities Act Rule 172 implements an "access equals delivery" model that permits, with certain exceptions, final prospectus delivery obligations to be satisfied by the filing of a final prospectus with the Commission, rather than delivery of the prospectus to purchasers.[189]

Two commenters submitted letters encouraging the Commission to permit expanded use of electronic delivery of prospectuses and other materials that broker-dealers are required to provide to investors at or prior to settlement in accordance with various provisions of the securities laws.[190] One commenter expressed concern that, for securities that do not benefit from access equals delivery, the move to T+2 leaves little or no margin for operational difficulties that could delay the delivery of a prospectus despite a good faith effort by the broker-dealer.[191] In

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[188] T+2 Proposing Release, supra note 1, 81 FR at 69263. Section 5(b)(2) of the Securities Act makes it unlawful to deliver (i.e., as part of settlement) a security "unless accompanied or preceded" by a prospectus that meets the requirements of Section 10(a) of the Act (known as a "final prospectus"). 15 U.S.C. 77e(b)(2).

[189] T+2 Proposing Release, supra note 1, 81 FR at 69254, n.113. Under Securities Act Rule 172(b), an obligation under Section 5(b)(2) of the Securities Act to have a prospectus that satisfies the requirements of Section 10(a) of the Act precede or accompany the delivery of a security in a registered offering is satisfied only if the conditions specified in paragraph (c) of Rule 172 are met. Paragraph (d) of Rule 172 provides that Rule 172 does not apply to any offerings of investment companies or business development companies, or to a business combination, or any offering registered on Form S-8 (17 CFR 239.16b).

Under Securities Act Rule 174(h), a dealer may satisfy any obligation to deliver a prospectus pursuant to Section 4(a)(3) of the Securities Act (other than for blank check companies) by complying with the provisions of Securities Act Rule 172. 17 CFR 230.174(h). (In 2012, Congress enacted the Jumpstart Our Business Startups Act, which re-designated Section 4(3) of the Securities Act as Section 4(a)(3). Pub. L. 112-106, Sec. 201(b)(1), (c)(1), Apr. 5, 2012, 126 Stat 306.)

[190] SIFMA at 20-21; Fidelity at 5-6; see also note 188 supra.

[191] SIFMA at 20. In support of that concern, the commenter noted that the current process to effectuate delivery of such documentation often entails a number of steps that occur late in the day and overnight to ensure compliance.

light of the potential for unforeseen or unanticipated disruption to this process, the commenter encouraged the Commission to provide for a reasonable means to comply or otherwise avoid non-compliance with prospectus and confirmation delivery requirements, given the operational constraints associated with physical delivery.[192]

The second commenter focused more generally on the use of electronic delivery.[193] The commenter believed that shareholder preferences and technology regarding internet usage has changed considerably over the years, and that the Commission should, in light of these changes, update its existing guidance on the use of electronic media.[194] The commenter further asserted that electronic delivery, particularly under a notice and access model, offers investors an opportunity to receive up-to-date information in a format to which they are accustomed and that is searchable. Lastly, the commenter stated that electronic delivery offers significant cost savings benefits to investors and to the intermediaries that support them and is environmentally friendly.[195]

The Commission received comments, which suggested that operational difficulties may arise if the standard settlement cycle is shortened to T+2 in instances where a broker-dealer is

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192 Id. at 21. As an example, the commenter suggested that the Commission could provide guidance indicating that it will consider a broker-dealer to have met the requirement to deliver both a physical prospectus and a confirmation prior to settlement when the broker-dealer has made a good faith effort to deliver the physical prospectus and confirmation prior to settlement and delivers the prospectus and confirmation as soon as practicable thereafter. The commenter also suggested that the Commission could provide guidance indicating that when a confirmation is sent in advance of the prospectus as a result of an unforeseen delay, the confirmation will not be deemed a "nonconforming" prospectus in violation of Section 5 of the Securities Act if the dealer has made a good faith effort to deliver the prospectus and the prospectus is delivered as soon as practicable thereafter. Id.

193 Fidelity at 5-6.

194 Id.

195 Id. at 6.

required to deliver a physical prospectus. Such commenters, however, did not identify specific instances where such operational difficulties could occur. If, during implementation, specific issues arise, the Commission encourages industry participants to bring them to the attention of the staff. Accordingly, the Commission is not at this time providing guidance on these requirements.

D. Exemptive Orders Excluding Certain Products from the Requirements of Rule 15c6-1(a)

To help facilitate the establishment of a T+3 settlement cycle, the Commission issued an exemptive order in 1995 granting a limited exemption for securities that do not generally trade in the U.S. by providing that all transactions in securities that do not have transfer or delivery facilities in the U.S. are exempt from the scope of Rule 15c6-1.[196] In the T+2 Proposing Release, the Commission requested comment as to whether this exemptive order should be modified or whether the conditions of that exemption were still appropriate.[197] The Commission did not receive any comment letters pertaining to this exemptive order and is not rescinding or modifying it.

The Commission also granted an exemption from the T+3 settlement cycle for contracts for the purchase or sale of any security issued by an insurance company (as defined in Section 2(a)(17) of the Investment Company Act)[198] that is funded by or participates in a "separate account" (as defined in Section 2(a)(37) of the Investment Company Act),[199] including a variable

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196 See Securities Transactions Settlement, Exchange Act Release No. 35750 (May 22, 1995), 60 FR 27994, 27995 (May 26, 1995) (granting exemption for certain transactions in foreign securities).

197 See T+2 Proposing Release, supra note 1, 81 FR at 69262.

198 15 U.S.C. 80a-2(a)(17).

199 15 U.S.C. 80a-2(a)(37).

annuity contract or a variable life insurance contract, or any other insurance contract registered as a security under the Securities Act.[200]

In the T+2 Proposing Release, the Commission requested comment as to whether the conditions set forth in the existing exemption for registered insurance products continued to be appropriate, or whether the exemption should be modified.[201] Two commenters stated that the conditions for the Commission's existing exemption for registered insurance products are still appropriate, and as such, the exemption should be preserved.[202] In support of that view, both of these commenters argued that the conditions and considerations set forth in the 1995 exemptive order apply as much today as in 1995 and are even more applicable in a T+2 environment.[203] According to one of these commenters, insurance companies issuing registered insurance products are still subject to specific federal and state law requirements, as noted in the Commission's exemptive order.[204] Further, this commenter noted that no relevant market or

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[200] See Securities Transactions Settlement, Exchange Act Release No. 35815 (June 6, 1995), 60 FR 30906, 30907 (June 12, 1995) (granting exemption for transactions involving certain insurance contracts). Certain insurance contracts, including variable annuity contracts and variable life insurance contracts, have been deemed to be securities under the Securities Act. SEC v. Variable Annuity Life Ins. Co. of America, 359 U.S. 65 (1959) (variable annuity contracts are "securities" which must be registered with the Commission under the Securities Act); Adoption of Rule 3c-4 under the Investment Company Act of 1940, Exchange Act Release No. 9972, 1 SEC Docket 17 (Jan. 31, 1973) (a public offering of variable life insurance contracts involved an offering of securities required to be registered under the Securities Act).

[201] See T+2 Proposing Release, supra note 1, 81 FR at 69262.

[202] CAI at 1; Fidelity at 4.

[203] CAI at 3; Fidelity at 4.

[204] Specifically, this commenter stated that the Commission's order noted certain federal and state law requirements on insurers to: (1) assess the purchaser's insurability and mortality risk, which often involves time consuming medical examinations, laboratory tests, and review of medical records; (2) conduct a review to determine any additional requirements imposed by the Internal Revenue Code or ERISA; and (3) preserve and implement, as required by state law in many jurisdictions, a purchaser's right to return or cancel an insurance contract for any reason

regulatory conditions have changed, and that no relevant features of insurance products have changed since the Commission determined that the insurance exemption was justified in light of such requirements.[205] In addition, the commenter noted that registered insurance products do not trade in the same manner as most other securities, they are not listed on exchanges or sold in the OTC market, and these products do not present the credit, market, liquidity, and systemic risks that Rule 15c6-1 is designed to address.[206] The other commenter believed that it would be helpful for the Commission to include language in the adopting release noting that the exemptive order for insurance products remains intact and is not affected by the proposed amendment.[207]

The Commission has carefully considered the comments and is not rescinding or modifying the exemptive order for registered insurance products.

IV. Compliance Date

In the T+2 Proposing Release, the Commission noted that in setting a compliance date it would need to provide sufficient time to allow for broker-dealers, clearing agencies, and other market participants to plan for, implement, and test changes to their systems, operations, policies, and procedures in a manner that would allow for an orderly transition to a T+2 standard settlement cycle. The Commission also noted that the Industry Steering Group ("ISC")[208] that

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within a specified time of delivery (so-called "free look" requirements). CAI at 3 (citing to Release Nos. 33-7177; 34-35815 (June 6, 1995), 60 FR 30906 (June 12, 1995)).

205 CAI at 3.

206 Id. at 4.

207 Fidelity at 4-5.

208 DTCC, in collaboration with the Investment Company Institute and the Securities Industry and Financial Markets Association, and other market participants, formed the ISC in October 2014. See Press Release, DTCC, Industry Steering Committee and Working Group Formed to Drive Implementation of T+2 in the U.S. (Oct. 2014), http://www.dtcc.com/news/2014/october/16/ust2.aspx.

was formed to facilitate the transition to a T+2 settlement cycle published, in conjunction with Deloitte & Touche LLP, the T+2 Industry Implementation Playbook ("T+2 Playbook"), which set forth an implementation timeline with milestones and dependencies, as well as detailed remedial activities that impacted market participants should consider to prepare for a migration to a T+2 settlement cycle.[209] This implementation timeline provides for a transition to a T+2 settlement cycle in the third quarter of 2017. Subsequent to publication of the T+2 Playbook, the ISC identified September 5, 2017 as the target date for the transition to a T+2 settlement cycle.[210]

In response to the T+2 Proposing Release, several commenters supported September 5, 2017 as the compliance date for the proposed changes to Rule 15c6-1(a), and no commenters suggested an alternative compliance date for the Commission's consideration or otherwise addressed the compliance date issue.[211] In identifying September 5, 2017, two commenters noted that they attempted to determine the lowest risk date on which to migrate to a shorter settlement cycle, and that considerations included, holidays, high-volume events such as index rebalancing, options expiration, and scheduled corporate action events, among others.[212] One commenter cited the advantages of September 5, 2017 being the Tuesday following Labor Day,

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[209] Deloitte & Touche LLP & ISC, T+2 Industry Implementation Playbook (Dec. 2015), http://www.ust2.com/pdfs/T2-Playbook-12-21-15.pdf.

[210] The ISC announced in March 2016 that it identified September 5, 2017 as a target implementation date. See Press Release, ISC, US T+2 ISC Recommends Move to Shorter Settlement Cycle On September 5, 2017 (Mar. 7, 2016), http://www.ust2.com/pdfs/T2-ISC-recommends-shorter-settlement-030716.pdf.

[211] CCMA at 2-3; DTCC Letter at 3-4; Fidelity at 2; FIF at 1; ICI at 6; IDC at 2; SIFMA at 2, 3-4; Thomson Reuters at 2; WFA at 3.

[212] DTCC Letter at 3-4; SIFMA at 5.

which would provide market participants with a three-day weekend to implement and test system and procedural changes.[213]

Several commenters noted work that already has been performed by market participants to implement a T+2 standard settlement cycle on a schedule consistent with the target implementation date set forth by the ISC.[214] As a means of ensuring that market participants continue to work towards implementation of a T+2 standard settlement cycle on this timeline, several commenters encouraged the Commission to adopt the amendment to Rule 15c6-1(a) by March 2017 and set a compliance date consistent with the target date set by the ISC, which would provide market participants with certainty that the transition to a shorter settlement cycle would occur as well as provide time to implement and test changes necessary to support a transition to a shorter settlement cycle.[215]

One commenter specifically noted that the industry-wide testing approach developed by the ISC suggested that a six-month test period prior to the compliance date would be required to meet industry requirements.[216] This commenter also expressly supported Commission action in March 2017, stating that swift, decisive leadership by the Commission to adopt the T+2 settlement cycle by March 2017 would guarantee industry participants continue their efforts to complete the operational and technological changes required to move to a shorter settlement cycle.[217] This commenter also noted that testing within individual firms and between firms has

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213 DTCC Letter at 4.

214 DTCC Letter at 4; SIFMA at 14; Thomson Reuters at 1-2.

215 Fidelity at 2; FIF at 1; ICI at 6; SIFMA at 2.

216 SIFMA at 4-5.

217 Id. at 2.

already begun, with industry-wide testing scheduled to begin on February 13, 2017.[218] One commenter noted that formal projects to migrate its systems to T+2 have been created across multiple product lines, and that it is well on-track to have all required changes completed and positioned to support industry testing scheduled to take place in February 2017.[219]

In light of the scope of industry preparation highlighted by the commenters as necessary for a successful transition by all market participants to a T+2 standard settlement cycle, the Commission believes that September 5, 2017 is an appropriate compliance date, and an earlier date could result in disruptions to the securities markets if market participants are not able to complete the changes necessary to support a T+2 standard settlement cycle on a shorter timeline. Commenters supporting a September 5, 2017 compliance date indicated that industry preparations have continued to proceed since the March 2016 announcement by the ISC of the target implementation date and are anticipated to be completed in time for a transition to a shorter settlement cycle by September 5, 2017.[220]

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218 Id. This commenter also noted that testing of changes related to a transition to a T+2 standard settlement cycle is being coordinated with testing associated with other industry initiatives, including, among others, Regulation Systems Compliance and Integrity and the implementation of the Consolidated Audit Trail. Id. at 9.

219 DTCC Letter at 4.

220 SIFMA at 2, 4-5, 9; DTCC Letter at 4; Thomson Reuters at 1-2; WFA at 2-3; ICI at 6.

With respect to the preparedness of SROs for a transition to a shortened standard settlement cycle, the Commission received one comment noting that, although several SROs already had published changes or proposed changes to their rules to accommodate a shortened settlement cycle, there are still certain SRO rules requiring amendment to recognize the T+2 settlement cycle. Such rules may specifically establish or reference a T+3 settlement cycle, but they also may not contain specific references to T+3 and instead establish time frames based on the settlement date of a trade. See SIFMA at 6 (identifying three particular rules that specifically reference a T+3 settlement cycle). The Commission already has approved certain SRO rule changes to accommodate a T+2 settlement cycle. See, e.g., NYSE Arca, Inc.; Order Granting Approval of a Proposed Rule Change to Conform to Proposed Amendment to Rule 15c6-1(a) under the Securities Exchange Act of 1934 to Shorten the Standard Settlement Cycle from T+3

The Commission received two comment letters referencing certain regulations of the Federal Deposit Insurance Corporation ("FDIC") and the Office of the Comptroller of the Currency ("OCC") which use language similar to the language in Rule 15c6-1(a) being amended today.[221] One commenter described these as rules that should be amended in light of the move to a T+2 settlement cycle. The commenter noted that the industry is in contact with each of these regulatory entities regarding these rules and stated its belief that none of these anticipated changes should present an obstacle to the migration currently underway.[222] The other commenter noted that these rules are virtually identical to Rule 15c6-1 and requested that the Commission coordinate with both the FDIC and OCC on changes to their rules that match the proposal.[223] Commission staff is in contact and coordination with staff from these agencies, and Commission staff also understands that staff from these agencies are in contact with the industry regarding these rules and the shift to a T+2 settlement cycle. These commenters did not identify a specific problem or impediment arising from the existence of these rules, and the Commission does not see the existence of these rules as an impediment to adopting the amendment to Rule 15c6-1(a).

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to T+2, Exchange Act Release No. 79732 (Jan. 4, 2017); MSRB; Order Granting Approval of a Proposed Rule Change Consisting of Proposed Amendments to Rules G-12 and G- 15 to Define Regular-Way Settlement for Municipal Securities Transactions as Occurring on a Two-Day Settlement Cycle and Technical Conforming Amendments, Exchange Act Release No. 77744 (April 29, 2016).

221 See SIFMA at 6 and FSR at 5 (identifying FDIC Rule 344.7(a) and OCC Rule 12.9(a) as using language mirroring that in Rule 15c6-1).

222 SIFMA at 6.

223 FSR at 5. This commenter also requested that the Commission work with the FDIC and OCC to ensure that they amend their equivalent rules sufficiently in advance of the T+2 compliance date. Id. at 2.

Therefore, the Commission believes that September 5, 2017 is an appropriate compliance date by which the transition to a T+2 standard settlement cycle should be completed. The Commission believes that a compliance date of September 5, 2017 provides sufficient time for broker-dealers, clearing agencies, SROs and other market participants, including retail investors,[224] to plan for, implement, promulgate new rules, and test changes to systems, operations, policies, and procedures.

V. Further Reductions in the Settlement Cycle

In the T+2 Proposing Release, the Commission requested comment on whether additional reductions in the settlement cycle could be achieved.[225] As also discussed in Parts III.A.3.c and VI.D.1 and 2, a few commenters urged the Commission to adopt a T+1 or shorter standard settlement cycle citing benefits similar to those of a T+2 standard settlement cycle, but greater in magnitude.[226] One commenter asserted that the Commission should move without undue delay toward a T+1 standard based on STP.[227] Another commenter noted the proposed rule change did not go far enough to treat all investors equally and thought the settlement cycle should be 24 hours as a maximum timeframe and one hour at a minimum.[228] Another commenter stated that it was time to implement "instantaneous" settlement of trades, noting that the practical impact of

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224 As previously discussed, one commenter noted concerns about the impact of a T+2 settlement cycle on investors that do not make timely deliveries and the potential implications for Exchange Act Rules 15c3-3(m) and 204. See notes 150 and 170 supra. The Commission believes that a compliance date of September 5, 2017 will provide retail investors with time to become informed – either directly or through their broker-dealers – of the change to a T+2 standard settlement cycle and determine what changes to their own processes and behaviors may be necessary to participate in the market under a shorter settlement cycle.

225 See T+2 Proposing Release, 81 FR at 69262.

226 CFA at 1-4; Spydell.

227 CFA at 1, 3.

228 Spydell.

longer settlement cycles is that if he is “actively trading,” the commenter would not have access to the proceeds of a transaction until it settled and therefore had to keep funds “un-invested” at all times.[229] As discussed in further detail in Part VI.D.1, several commenters argued against a move to a settlement cycle shorter than T+2, citing the industry coordination challenges, higher investment costs, and the longer time needed to recoup the investment.[230]

The Commission believes at this time that a successful transition to a settlement cycle shorter than T+2 would require comparatively larger investments by market participants to adopt new systems and processes.[231] However, the Commission notes that a move to a T+1 standard settlement cycle could have similar qualitative benefits of market, credit, and liquidity risk reduction for market participants as a move to a T+2 standard settlement cycle. Accordingly, the staff of the Commission will undertake to submit a report to the Commission no later than three years from the compliance date of Rule 15c6-1(a) as amended herein. This report will include, but not be limited to an examination of:

(i) the impact of today’s amendment to Rule 15c6-1(a) to establish a T+2 standard settlement cycle on market participants, including investors;

(ii) the potential impacts associated with movement to a shorter settlement cycle beyond T+2;

(iii) the identification of technological and operational improvements that can be used to facilitate a movement to a shorter settlement cycle; and

(iv) cross-market impacts (including international developments) related to the shortening of the settlement cycle to T+2.

229 Parker.

230 Thomson Reuters at 2, WFA at 3, MFA at 2, and DTCC Letter at 4.

231 See Part VI.D.1.

Given that the report will be based on data and information available to Commission staff, the Commission invites academics, market participants, fellow regulators and other interested parties to provide data and information that will be useful in informing the staff's study.

VI. Economic Analysis

The Commission has prepared an economic analysis in connection with the amendment to Rule 15c6-1(a) that it is adopting today. The economic analysis begins with a discussion of the risks inherent in the standard settlement cycle for securities transactions and the impact that shortening the standard settlement cycle may have on the management and mitigation of these risks. Next, the economic analysis summarizes and considers comments that address the costs and benefits of a shorter settlement cycle, as well as comments about the economic analysis provided in the T+2 Proposing Release. Finally, the economic analysis discusses certain market frictions that potentially impair the ability of market participants to shorten the settlement cycle in the absence of a Commission rule. The discussion regarding settlement cycle risks and market frictions frames the Commission's analysis of the rule's benefits and costs in later sections. The Commission believes that the amendment to Rule 15c6-1(a) will ameliorate these market frictions and thus will reduce the risks inherent in settlement.

After discussing the aforementioned risks and market frictions, the economic analysis then provides a baseline of current practices. The economic analysis then discusses the likely economic effects of the amendment, such as the costs and benefits of the adopted amendment as well as its effects on efficiency, competition, and capital formation.[232] The Commission has,

[232] Section 3(f) of the Exchange Act requires the Commission, when engaging in rulemaking that requires the Commission 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. 15 U.S.C. 78c(f).

where possible, attempted to quantify the economic effects expected to result from the amendment.

A. Background

The amendment to Rule 15c6-1(a) prohibits a broker-dealer from effecting or entering into a contract for the purchase or sale of a security (other than an exempted security, government security, municipal security, commercial paper, bankers' acceptances, or commercial bills) that provides for payment of funds and delivery of securities later than the second business day after the date of the contract unless otherwise expressly agreed to by both parties at the time of the transaction, subject to certain exceptions provided in the rule. Several commenters addressed the impact that the length of the settlement cycle would have on credit, market, liquidity, and counterparty risk in financial markets.[233] In its analysis of the economic impacts of the amendment to Rule 15c6-1(a), the Commission has considered the risks that market participants, including broker-dealers, clearing agencies, and institutional and retail investors, are exposed to during the settlement cycle and how those risks change with the length of the cycle.

The settlement cycle spans the length of time between when a trade is executed and when cash and securities are delivered to the seller and buyer, respectively. During this period of time, each party to a trade faces the risk that its counterparty may fail to meet its obligations to deliver cash or securities. When a counterparty defaults or fails to meet its obligations to deliver cash or

Further, Section 23(a)(2) of the Exchange Act requires the Commission, when adopting rules under the Exchange Act, to consider the impact that any new rule would have on competition, and provides that the Commission shall not 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. 15 U.S.C. 78w(a)(2).

233 Bloomberg at 1; CFA at 3; DTCC Letter at 2; Fidelity at 1; FIF at 2; FSI at 2; ICI at 4-5; IDC at 1; MFA at 1-2; SIFMA at 1.

securities, the trade must be closed out. Regardless of whether the non-defaulting party chooses to enter into a new transaction as a result of the failed trade, it is likely to bear costs as a result of its counterparty's failure to deliver the cash or securities. For example, a party that chooses to enter into a new transaction must find a new counterparty to contract with and must trade at a price that may not be the same as the price of the original trade.[234] The length of the settlement cycle influences this risk in two ways: (i) through its effect on counterparty exposures to price volatility, and (ii) through its effect on the value of outstanding obligations.

First, the duration of the settlement timeframe affects whether and how much asset prices can move further away from the price of the original trade. For example, if daily asset returns are statistically independent, then the variance of prices over *t* days is equal to *t* multiplied by the daily variance of asset returns. Thus when daily returns are independent and daily variance of returns is constant, the variance of returns increases linearly as the length of the settlement cycle increases.[235] In other words, if more time passes between when a trade is executed and when a counterparty defaults, the variance of prices will be larger, and the more likely it will be that difference between execution price and the price ultimately paid will be larger. For example, if a buyer whose counterparty defaults or fails to meet its obligations to deliver securities decides to enter into a new transaction to buy the same security, the buyer faces the risk that the price of the security will have deviated from the price of the original transaction. The price could increase or

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[234] As described in Part II.c.1.a above, in its role as a CCP, NSCC becomes counterparty to both initial parties to a transaction. In the case of cleared transactions, while each initial party is not exposed to the risk that their original counterparty defaults, both are exposed to the risk of CCP default. Similarly, the CCP is exposed to the risk that either initial party defaults.

[235] More generally, because total variance over multiple days is equal to the sum of daily variances and variables related to the correlation between daily returns, total variance increases with time so long as daily returns are not highly negatively correlated. See e.g., Morris H. DeGroot, Probability and Statistics 216 (Addison-Wesley Publishing Co. 1986).

decrease, but in the event of a price increase, the buyer must pay more than the original execution price.[236]

Second, the length of the settlement cycle directly influences the quantity of unsettled transactions between trade date and settlement date. For example, assuming no change in transaction volumes, the volume of unsettled trades under a T+2 standard settlement cycle is two-thirds the volume of unsettled trades under a T+3 standard settlement cycle. Thus, in the event of a counterparty default, counterparties would have to enter into a new transaction for, or otherwise close out, two-thirds of the number of trades in a T+2 standard settlement cycle, as compared to the number of trades requiring a new trade or close-out in a T+3 standard settlement cycle. For a given adverse move in prices, the financial losses resulting from counterparty default will be two-thirds as large under a T+2 standard settlement cycle than under a T+3 standard settlement cycle.[237]

Market participants manage and mitigate the risks associated with settlement in a number of specific ways that are discussed in Part III.A of this release. Generally, these methods entail costs to market participants. In some cases, these costs may be explicit. For instance, broker-dealers may explicitly charge customers for providing them with the implicit option to default on payment or delivery obligations. Other costs are implicit, such as the opportunity cost of assets posted as collateral, or limitations on the amount of credit that broker-dealers are willing to provide their customers.

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236 Similarly, a seller whose counterparty fails faces similar risks with respect to the security, albeit in opposite directions.

237 One commenter specifically commented on how the volume of obligations might affect the consequences of adverse price movements, stating that reducing the total volume and value of obligations in the settlement system at any given time would help minimize the systemic consequences of serious market disruptions. See SIFMA at 15.

Shortening the standard settlement cycle will shorten the amount of time that market participants are exposed to credit and market risks. In addition, a shorter standard settlement cycle will reduce liquidity risks that could arise between derivative and cash markets by allowing investors to obtain the proceeds of securities transactions sooner. These are risks that affect all market participants, are difficult to diversify away, and require resources to manage and mitigate. CCPs and clearing members require participants to post financial resources in order to secure members' obligations to deliver cash and securities to the CCP. To the extent that collateral is posted to CCPs and clearing members for the purposes of mitigating the risks of the clearance and settlement process, that may represent an allocative inefficiency.

This allocative inefficiency could take on several forms. First, CCP financial resources that are used to mitigate the risks of the clearance and settlement process could have been put to alternative uses, such as investment in less liquid assets. Second, assets that are valuable because they are particularly suited to meeting financial resource obligations may have been better allocated to market participants that hold these assets for their fundamental risk and return characteristics. These allocative inefficiencies may reduce capital formation. Reducing the financial risks associated with the overall clearance and settlement process would thereby reduce the amount of collateral required to mitigate these risks, which would reduce the costs that market participants bear to manage and mitigate these risks and the allocative inefficiencies that may stem from risk management practices.[238] Hence, the Commission believes that these benefits generally provide securities market participants with incentives to shorten the settlement cycle.

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[238] See infra Part II.C.1.a for further discussion of financial resources collected to mitigate and manage financial risks; see also infra Part III.A for more information about risk reduction.

However, the Commission acknowledges that certain market frictions may prevent securities markets from shortening the settlement cycle in the absence of regulatory intervention. The Commission has considered two key market frictions related to investments required to implement a shorter settlement cycle. The first is a coordination problem that arises when some of the benefits of actions taken by market participants are only realized when other market participants take a similar action. For example, in the absence of the amendment to Rule 15c6-1(a), if a particular institutional investor makes a technological investment necessary to reduce the time it requires to match and allocate trades while its clearing broker-dealers do not, the institutional investor cannot fully realize the benefits of its investment, as the settlement process is limited by the capabilities of the clearing agency for trade matching and allocation. More generally, when each market participant must bear the costs of an upgrade for the entire market to enjoy a benefit, the result is a coordination problem, where each market participant is reluctant to make the necessary investments until it can be sure that others will also do so. In general, these coordination problems may be resolved if all parties can credibly commit to the necessary infrastructure investments. Regulatory intervention is one possible way of coordinating market participants to undertake the investments necessary to support a shorter settlement cycle. Such intervention could come through Commission rulemaking and/or through a coordinated set of SRO rule changes. Two commenters made similar arguments, discussing the need for "regulatory certainty" (i.e., Commission action) to encourage market participants to make the necessary investments for a T+2 standard settlement cycle.[239]

In addition to coordination problems, a second market friction related to the settlement cycle involves situations where one market participant's investments result in benefits for other

[239] Fidelity at 2; FIF at 1; ICI at 6; SIFMA at 2.

market participants. For example, if a market participant invests in a technology that reduces the error rate in its trade matching, not only does it benefit from fewer errors, but its counterparties and other market participants may also benefit from more robust trade matching. However, because market participants do not necessarily take into account the benefits that may accrue to other market participants (also known as “externalities”) when market participants choose the level of investment in their systems, the level of investment in technologies that reduce errors might be less than efficient for the entire market. More generally, underinvestment may result because each participant only takes into account its own costs and benefits when choosing which infrastructure improvements or investments to make, and does not take into account the costs and benefits that may accrue to its counterparties, other market participants, or other financial markets.

Moreover, because market participants that incur similar costs to enable a move to a shorter settlement cycle may nevertheless experience different levels of economic benefits, there is likely heterogeneity across market participants in the demand for a shorter settlement cycle. This heterogeneity may exacerbate coordination problems and underinvestment. Market participants that do not expect to receive direct benefits from settling transactions earlier may lack incentives to invest in infrastructure to support a shorter settlement cycle and thus could make it difficult for the market as a whole to realize the overall risk reduction that the Commission believes a shorter settlement cycle will bring.

For example, the level and nature of settlement risk exposures vary across different types of market participants. A market participant’s characteristics and trading strategies can influence the level of settlement risk it faces. For example, large market participants will generally be exposed to more settlement risk than small market participants because they trade in larger volume. However, large market participants also trade across a larger variety of assets and may face less idiosyncratic risk in the event of counterparty default if the portfolio of trades that would have to be reestablished is diversified.[240] As a corollary, a market participant who trades a single security in a single direction against a given counterparty may face more idiosyncratic risk in the event of counterparty failure than a market participant who trades in both directions with that counterparty.

Further, the extent to which a market participant experiences any economic benefits that may stem from a shortened standard settlement cycle likely depends on the market participant's relative bargaining power. While large intermediaries, such as clearing broker-dealers, may experience direct benefits from a shorter settlement cycle as a result of being required to post less collateral with a CCP, they may not pass on the entirety of these cost savings to their customers. In addition, to the extent that broker-dealers do not effectively compete for customers through fees and services as a result of market power, they may limit the portion of these cost savings passed through to their customers.[241]

In light of the above, the Commission believes that the amendment to Rule 15c6-1(a), which will shorten the standard settlement cycle from T+3 to T+2, will mitigate the market frictions of coordination and underinvestment described above. The Commission also believes that mitigating these market frictions and moving to a shorter standard settlement cycle will reduce the risks inherent in the clearance and settlement process.

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240 See Ananth Madhavan, Morris Mendelson & Junius W. Peake, Risky Business: The Clearance and Settlement of Financial Transactions (Wharton Sch. Rodney L. White Ctr. for Fin. Research, Working Paper No. 40-88, 1988); see also John H. Cochrane, Asset Pricing (Princeton University Press rev. ed. 2009), at 15 (defining the idiosyncratic component of any payoff as the part that is uncorrelated with the discount factor).

241 See infra Parts VI.C.1.

The shorter standard settlement cycle will also have an impact on the level of operational risk that exists in the U.S. clearance and settlement system as a result of existing clearance and settlement processes. By shortening the settlement cycle by one day, market participants involved in a securities transaction will have one less day to resolve any errors that might occur in the clearance and settlement process. As a result, tighter operational timeframes and linkages required under a shorter standard settlement cycle might introduce new fragility that could impact financial market participants, specifically an increased risk that operational issues could impact transaction processing and related securities settlement.[242] One commenter noted that a T+2 settlement cycle would motivate market participants to tighten their operational processes.[243] While the Commission acknowledges that a shorter standard settlement cycle may increase risks associated with the clearance and settlement process by creating tighter operational timeframes, the operational improvements made by market participants to facilitate a shorter standard settlement cycle may offset these increases in risk. In addition, even in the absence of such operational improvements, the Commission believes that the transition to a shortened settlement cycle is appropriate given the reduction in credit, market, and liquidity risks associated with a shorter settlement cycle.

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[242] For example, the ability to compute an accurate net asset value ("NAV") within the settlement timeframe is a key component for settlement of ETF transactions. See, e.g., Barrington Partners, An Extraordinary Week: Shared Experiences from Inside the Fund Accounting Systems Failure of 2015, at 10 (Nov. 2015), http://www.mfdf.org/images/uploads/blog_files/SharedExperiencefromFASystemFailure2015.pdf.

[243] See ICI at 5. Specifically, the commenter noted that it expected institutional investors to improve the quality of settlement instructions and static settlement data maintenance and increase automation and STP rates with their broker-dealers and custodian banks, resulting in higher on-time affirmed, confirmed, and settled trades.

One commenter noted its view more generally that shortened settlement periods will result in an increased likelihood of computerized trading that could destabilize the market.[244] The Commission notes that amending the length of the settlement cycle will affect the speed at which post-trade processes occur, but has not observed any evidence to suggest that a shortened standard settlement cycle will alter the incidence of computerized trading or how such activity influences market stability.

Market participants may incur initial costs for the investments necessary to comply with a shorter standard settlement cycle.[245] However, these costs may differ across market participants and these differences may exacerbate coordination problems. First, differences in operational costs across CCP members may be driven by member transaction volume, and so the extent to which many of the upgrades necessary for a T+2 standard settlement cycle are optimal for a member to adopt unilaterally may depend on its transaction volume. For example, certain upgrades necessary for a T+2 standard settlement cycle may result in economies of scale, where large clearing members are able to comply with the amendment to Rule 15c6-1(a) at a lower per transaction cost than smaller members. As a result, larger members might take a short time to recover their initial costs for upgrades; smaller members with lower transaction volumes might take longer to recover their initial cost outlays and might be more reluctant to make the upgrades in the absence of the amendment to Rule 15c6-1(a).[246] On the other hand, smaller members might be more dependent on third-party service providers, and may thus bear fewer direct costs.

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244 See Gellert; Part III.A.3 supra.

245 See infra Part VI.C.2.

246 See SIFMA at 13 (observing that the largest asset managers reported lower estimated costs than medium asset managers).

In addition, the Commission acknowledges that the upgrades necessary to implement a shorter standard settlement cycle may produce indirect economic effects. We analyze some of these indirect effects, such as the impact on competition and third-party service providers, in the following section. However, other indirect effects, such as the ancillary benefits and costs mentioned in the October 2012 Boston Consulting Group study ("BCG Study"),[247] of investments and changes to market practices that enhance the speed and efficiency of the settlement process, but which are unrelated to a shorter standard settlement cycle, are not within the scope of this economic analysis.

B. Baseline

In order to perform its analysis of the likely economic effects of the amendment to Rule 15c6-1(a), as well as the amendment's effects on efficiency, competition, and capital formation, the Commission uses as its baseline the clearance and settlement process as it exists today. In addition to the current process that was described in the T+2 Proposing Release, the baseline includes rules adopted by the Commission, including rules governing the clearance and settlement system, SRO rules,[248] as well as rules adopted by regulators in other jurisdictions to

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[247] See The Boston Consulting Group, Cost Benefit Analysis of Shortening the Settlement Cycle, (Oct. 2012) ("BCG Study") at 8, http://www.dtcc.com/~/media/Files/Downloads/WhitePapers/CBA_BCG_Shortening_the_Settlement_Cycle_October2012.pdf.

As noted in the T+2 Proposing Release, DTCC commissioned in May 2012 a study to examine and evaluate the necessary investments and resulting benefits associated with a shortened settlement cycle for U.S. equities and corporate and municipal bonds. The resulting BCG Study analyzed the costs, benefits, opportunities and challenges associated with shortening the settlement cycle in the U.S. securities markets to either T+1 or T+2, respectively. See T+2 Proposing Release, supra note 1, 81 FR at 69254.

[248] See id. at 69247.

regulate securities settlement in those jurisdictions.[249] The following section discusses several additional elements of the baseline that are relevant for the economic analysis of the amendment to Rule 15c6-1(a) because they are related to the risks and costs faced by market participants that clear and settle securities transactions subject to the rule and the specific means by which market participants manage these risks.

1. Central Counterparties

One way NSCC mitigates the credit, market, and liquidity risk it assumes through its novation and guaranty of trades is via multilateral netting of the delivery and payment obligations across clearing members. By offsetting these obligations, NSCC reduces the aggregate market value of securities and cash it must deliver to clearing members after the trade is novated and the trade guaranty attaches. While netting reduces NSCC's settlement obligations by an average of 97% on each day, it does not fully eliminate the risk posed by unsettled trades because NSCC is still responsible for payments or deliveries on trades it cannot fully net. NSCC reported clearing an average of approximately $805 billion each day during the third quarter of 2016,[250] suggesting an average net settlement obligation of approximately $24.2 billion each day.[251] Based on these estimates, and given that, under current practices, NSCC's trade guaranty currently attaches at midnight on T+1, the average notional value of unsettled trades approaches $48.4 billion.[252] However, as mentioned previously, the Commission recently approved a rule change proposed by NSCC that will accelerate the NSCC trade guaranty from midnight of T+1

[249] See id. at 69255.

[250] See NSCC CPMI-IOSCO Quantitative Disclosure Results – Q3 2016, at 14 (Jan. 2017), http://www.dtcc.com/legal/policy-and-compliance.

[251] Calculated as $805 billion × 3% = $24.2 billion.

[252] Calculated as $24.2 billion × 2 days between attachment of the trade guaranty and settlement on T+3 = $48.4 billion.

to the point of trade comparison and validation for bilateral submissions or to the point of trade validation for locked-in submissions. Under the current standard settlement cycle, this accelerated trade guaranty effectively increases the length of time that NSCC's trade guaranty attaches from two days to three days. For the purposes of determining a baseline to compare the effects of this amendment, the Commission has assumed that NSCC's accelerated trade guaranty will already be in effect when this amendment takes effect.[253]

The aggregate settlement risk faced by NSCC is also a function of the probability of clearing member default. NSCC manages the risk of clearing member default by imposing certain financial requirements on its members. For example, as of 2016, broker-dealer members of NSCC that are not municipal securities brokers and do not intend to clear and settle transactions for other broker-dealers must have excess net capital over the minimum net capital requirement imposed by the Commission in the amount of $500,000.[254] Further, each NSCC member is subject to ongoing membership requirements, including a requirement to furnish NSCC with assurances of the member's financial responsibility and operational capability, including, but not limited to, periodic reports of its financial and operational condition.[255]

In addition to managing the risk of member default, CCPs also take steps to mitigate the risks and adverse indirect effects generated by member default. For example, in the normal course of business, a CCP's exposure to market or liquidity risk is hedged because it expects to receive every security from a seller it is obligated to deliver to a buyer and it expects to receive every payment from a buyer that it is obligated to deliver to a seller. However, when a clearing

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253 See supra Part II.C.1.a.

254 See NSCC Rules and Procedures, supra note 24, Rule 2A, Section 1A, and Addendum B, Section 1.B.1.

255 See, e.g., id., Rule 15, Section 2.

member defaults, the CCP can no longer expect the defaulting member to deliver securities or make payments. CCPs mitigate this risk by requiring clearing members to make contributions of financial resources to the CCP. As of Q3 2016, NSCC's clearing fund deposits totaled approximately $5.4 billion, of which $5.2 billion was cash deposits.[256] The level of financial resources a CCP requires clearing members to post may be based on, among other things, the market and liquidity risk of a member's portfolio, the correlation between the assets in the member's portfolio and the member's own default probability, and the liquidity of the collateral assets.

2. Market Participants – Investors, Broker-Dealers, and Custodians

As discussed in Part II.C.2 above, broker-dealers serve both retail and institutional customers. Aggregate statistics from the Board of Governors of the Federal Reserve System suggest that at the end of the third quarter of 2016, U.S. households held approximately 40% of the value of corporate equity outstanding, and 50% of the value of mutual fund shares outstanding, which provide a general picture of the share of holdings by retail investors.[257]

In the 2015 annual FOCUS reports, approximately 4,100 broker-dealers filed reports[258] with FINRA. These firms varied in size, with median assets of approximately $700,000, average assets of nearly $1 billion dollars and total assets for all broker-dealers approximately $4.1

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256 See NSCC Unaudited Condensed Consolidated Financial Statements for Q3 2016, available at http://www.dtcc.com/~/media/Files/Downloads/legal/financials/2016/NSCC-Unaudited-Condensed-Consolidated-Financial-Statements-3Q-2016.pdf.

257 See Board of Governors of the Federal Reserve System, Statistical Release Z.1 Financial Accounts of the United States, Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts, at tables L.223 and L.224 (Third Quarter 2016), https://www.federalreserve.gov/releases/z1/current/z1.pdf

258 FOCUS Reports, or "Financial and Operational Combined Uniform Single" Reports, are monthly, quarterly, and annual reports that broker-dealers generally are required to file with the Commission and/or SROs pursuant to Exchange Act Rule 17a-5, 17 CFR 240.17a-5.

trillion. Thirty broker-dealers held approximately 80% of the assets of broker-dealers overall, with total assets of approximately $3.4 trillion, indicating a high degree of concentration in the industry. Of the 4,100 filers, 186 reported self-clearing public customer accounts, while 1,497 reported acting as an introducing broker and sending orders to another broker-dealer for clearing. Broker-dealers that identified themselves as self-clearing broker-dealers, had on average, higher total assets than broker-dealers that identified themselves as introducing broker-dealers. While the decision to self-clear may be based on many factors, this evidence is consistent with the argument that there may currently be high barriers to entry for providing clearing services as a broker-dealer.

Clearing broker-dealers face liquidity risks as they are obligated to make payments to clearing agencies on behalf of customers who purchase securities. As discussed in more detail below, from the perspective of clearing broker-dealers, customers have an option to default on their payment obligations, particularly when the price of a purchased security declines during the settlement cycle.[259] Therefore, clearing broker-dealers take measures to reduce the risks posed by their customers. For example, clearing broker-dealers may require customers to contribute financial resources in the form of margin to margin accounts, to pre-fund purchases in cash accounts, or may restrict the use of unsettled funds. These measures are in many ways analogous to measures taken by clearing agencies to reduce and mitigate the risks posed by their clearing members. In addition, clearing broker-dealers may also mitigate the risks posed by customers by charging higher transaction fees that reflect the value of the customer's option to default, thereby causing customers to internalize the cost of the default options inherent in the settlement

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259 See id.

process.[260] While not directly reducing the risk posed by customers to clearing members, these higher transaction fees at least allocate to customers the direct expected costs of customer default.

Another way the settlement cycle may affect transaction prices is related to the use of funds during the settlement cycle. To the extent that buyers may use the cash to purchase securities during the settlement cycle for other purposes, they may derive value from the length of time it takes to settle a transaction. Two studies have tested this hypothesis, and found that sellers demand compensation for the benefit that buyers receive from deferring payment during the settlement cycle and that this compensation is incorporated in equity returns.[261]

The settlement process also exposes investors to certain risks. The length of the settlement cycle sets the minimum amount of time between when an investor places an order to sell securities and when the customer can expect to have access to the proceeds of that sale. Investors take this into account when they plan transactions to meet liquidity needs. For example, under T+3 settlement, investors who experience liquidity shocks, such as unexpected expenses that must be met within two business days, could not rely on obtaining funding solely through a sale of securities because the proceeds of the sale would be available in three business days, at the earliest, and not two. One possible strategy to deal with such a shock under T+3 settlement would be to borrow cash on day two to meet payment obligations on day two and

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260 See infra Parts VI.B.4 and VI.C.5(5).

261 See Victoria Lynn Messman, Securities Processing: The Effects of a T+3 System on Security Prices (May 2011) (Ph.D. dissertation, University of Tennessee – Knoxville), http://trace.tennessee.edu/utk_graddiss/1002/; Josef Lakonishok & Maurice Levi, Weekend Effects on Stock Returns: A Note, 37 J. Fin. 883 (1982), https://www.jstor.org/stable/pdf/2327716.pdf; Ramon P. DeGennaro, The Effect of Payment Delays on Stock Prices, 13 J. Fin. Res. 133 (1990), http://onlinelibrary.wiley.com/doi/10.1111/j.1475-6803.1990.tb00543.x/abstract.

repay the loan on day three with the proceeds from a sale of securities, incurring the cost of one day of interest on the short-term loan. Another strategy that investors may use is to hold financial resources to insure themselves from liquidity shocks.

3. Investment Companies

As noted above,[262] shares issued by investment companies settle on different timeframes. ETFs and certain closed-end funds generally settle on T+3. By contrast, options and mutual funds generally settle on a T+1 basis, except for certain retail funds which settle on T+3.[263] Mutual funds that settle on a T+1 basis currently face liquidity risk as a result of a mismatch between the timing of mutual fund transaction order settlements and the timing of fund portfolio security transaction order settlements. Mutual funds may manage these particular liquidity needs by, among other methods, using cash reserves, back-up lines of credit, or interfund lending facilities to provide cash to cover the settlement mismatch.[264] As of the end of 2015, there were 9,156 open-end funds (excluding money market funds, but including ETFs).[265] The assets of

262 See supra note 78.

263 Retail funds that currently settle on T+3 will be required to settle on T+2 as a result of this amendment, and are thus part of the broader set of securities that will be required to settle on T+2. The costs and benefits stemming from a shorter settlement cycle for these retail funds are included in our analysis in Section VI.C.

264 See Open-End Fund Liquidity Risk Management Programs; Swing Pricing; Re-Opening of Comment Period for Investment Company Reporting Modernization Release, Investment Company Act Release No. 31835 (Sept. 22, 2015), 80 FR 62274, 62285 n.100 (Oct. 15, 2015), and Investment Company Liquidity Risk Management Programs Release No. 32315 (Oct. 13, 2016), 81 FR 82142 (Nov. 18, 2016) at 82143 n.9.

265 See ICI, 2015 Investment Company Fact Book (2016), at 176, 183 (“2016 ICI Fact Book”), http://www.ici.org/pdf/2016_factbook.pdf.

these funds were approximately $14.95 trillion.[266] Within these figures, there were 1,521 ETFs with $2.1 trillion in assets.[267]

Under Section 22(e) of the Investment Company Act, an open-end fund is required to pay shareholders who tender shares for redemption within seven days of their tender.[268] In addition to this requirement, as a practical matter open-end funds that are sold through broker-dealers meet redemptions within three days because broker-dealers are subject to Rule 15c6-1(a). Furthermore, Rule 22c-1 under the Investment Company Act,[269] the "forward pricing" rule, requires funds, their principal underwriters, and dealers to sell and redeem fund shares at a price based on the current NAV next computed after receipt of an order to purchase or redeem fund shares, even though cash proceeds from purchases may be invested or fund assets may be sold in subsequent days in order to satisfy purchase requests or meet redemption obligations.

4. The Current Market for Clearance and Settlement Services

As described in Part II.C.1 above, two affiliated entities, NSCC and DTC, facilitate clearance and settlement for transactions that currently settle on a T+3 settlement cycle. There is limited competition in the provision of the services that these entities provide. NSCC is the CCP for trades between broker-dealers involving equity securities, corporate and municipal debt, and UITs for the U.S. market. DTC is the CSD that provides custody and book-entry transfer services for the vast majority of securities transactions in the U.S. market that are cleared through NSCC. There is also limited competition in the provision of Matching/ETC services –

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266 See id. at 174, 182.

267 See id. at 182-83.

268 See 15 CFR 270.80a–22(e).

269 17 CFR 270.22c-1.

three entities that have obtained exemptions from registration as a clearing agency from the Commission to operate as Matching/ETC Providers.[270]

Broker-dealers compete to provide services to retail and institutional customers. Based on the large number of broker-dealers, there is likely a high degree of competition among broker-dealers. However, the markets that broker-dealers serve may be segmented along lines relevant for the analysis of competitive impacts of the amendment to Rule 15c6-1(a). As noted above, the set of broker-dealers that indicate they clear public customer accounts by self-clearing tends to be smaller than the set of broker-dealers that indicate they do so by introducing and not self-clearing. This could mean that introducing broker-dealers compete more intensively for customers than clearing broker-dealers. Further, clearing broker-dealers must meet requirements set by NSCC and DTC, such as financial obligations, including clearing fund requirements. These requirements may represent barriers to entry for clearing broker-dealers, limiting competition among these entities.

Competition for customers impacts how the costs associated with the clearance and settlement process are allocated among market participants. In managing the expected costs of risks from their customers and the costs of compliance with SRO and Commission rules, clearing broker-dealers decide what fraction of these costs to pass through to their customers in the form of fees and margin requirements, and what fraction of these costs to bear themselves. The level of competition that a clearing broker-dealer faces for customers will dictate the extent to which it is able to exercise market power in passing through these costs to their customers; a clearing broker-dealer with little competition for customers is likely to pass on a majority of its costs to

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270 See supra note 24.

its customers, while one with heavy competition is likely to choose to bear the cost internally to avoid losing market share.

In addition, several factors related to clearance and settlement impact the current levels of efficiency and capital formation in the securities market. First, at a general level, market participants occupying various positions in the clearance and settlement system must post or hold liquid financial resources, and the level of these financial resources is a function of the length of the settlement cycle. For example, NSCC collects clearing fund contributions from members to ensure that it has sufficient financial resources in the event that one of its members defaults on its obligations to NSCC. As discussed above, the length of the settlement cycle is one determinant of the size of NSCC's exposure to clearing members. As another example, mutual funds may manage liquidity needs by, among other methods, using cash reserves, back-up lines of credit, or interfund lending facilities to provide cash. These liquidity needs, in turn, are related to the mismatch between the timing of mutual fund transaction settlements and the timing of fund portfolio security transaction settlements.

Holding assets solely for the purpose of mitigating counterparty risk or liquidity needs that arise as part of the settlement process could represent an allocative inefficiency, as discussed above, both because firms that are required to hold these assets might prefer to put them to alternative uses and because these assets may be more efficiently allocated to other market participants who value them for their fundamental risk and return characteristics rather than for their collateral value. To the extent that intermediaries bear costs as a result of inefficient allocation of collateral assets, these may be reflected in transaction costs.

The settlement cycle may also have more direct impacts on transaction costs. As noted above, clearing broker-dealers may charge higher transaction fees to reflect the value of the customer's option to default, and these fees may cause customers to internalize the cost of the default options inherent in the settlement process. However, these fees also make transactions costly and may, at the margin, influence the willingness of market participants to efficiently share risks or to supply liquidity to securities markets. Taken together, inefficiencies in the allocation of resources and risks across market participants may serve to impair capital formation.

Finally, market participants may make processing errors in the clearance and settlement process.[271] Industry participants have commented that a lack of automation and manual processing have led to processing errors.[272] Although some of these errors may be resolved within the settlement cycle and not result in a failed trade, those that are not may result in failed trades, which appear in the failure to deliver data.[273] Further, market participants may incorporate the likelihood that processing errors result in delays in payments or deliveries into securities prices.[274] Although errors and the correction of errors are a part of current market practices in a clearance and settlement system, the Commission does not have, nor did commenters provide, data available to estimate the rate of processing errors and the time needed to correct these processing errors.

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[271] See, e.g., Omgeo, Mitigating Operational Risk and Increasing Settlement Efficiency through Same Day Affirmation (SDA), at 12 (Oct. 2010), http://www.omgeo.com/page/sda_whitepaper.

[272] See DTCC Letter at 2; IDC at 1; SIFMA at 15.

[273] See T+2 Proposing Release, supra note 1, 81 FR at 69245; see also Statement by The Depository Trust & Clearing Corporation, U.S. Securities and Exchange Commission, Securities Lending and Short Sales Roundtable, at 3 (Sept. 30, 2009), https://www.sec.gov/comments/4-590/4590-32.pdf.

[274] See Messman, supra note 261.

C. Analysis of Benefits, Costs, and Impact on Efficiency, Competition, and Capital Formation

1. Benefits

Several commenters noted that the amendment would reduce the risks associated with the settlement cycle.[275] One commenter stated that by shortening the settlement cycle, the amendment would reduce both the aggregate market value of all unsettled trades and the amount of time that CCPs or the counterparties to a trade may be subject to market and credit risk from an unsettled trade.[276] Shortening the settlement cycle by one day would reduce the time that unsettled transactions are guaranteed by NSCC. Under our baseline assumption that NSCC's accelerated trade guaranty would be in effect by the effective date of this amendment, a T+2 standard settlement cycle would reduce the time that unsettled transactions are guaranteed by NSCC from three days to two days, by approximately one-third. Based on published statistics from the third quarter of 2016,[277] and holding average dollar volumes constant, the maximum aggregate notional value of unsettled transactions at NSCC under the accelerated trade guaranty would be approximately $72.6 billion,[278] and would fall to $48.4 billion under a T+2 standard settlement cycle, a reduction of $24.2 billion.[279] Two commenters noted that a shorter settlement

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275 Bloomberg at 1; CFA at 3; DTCC Letter at 2; Fidelity at 1; FIF at 2; FSI at 2; ICI at 4-5; IDC at 1; MFA at 1-2; SIFMA at 1.

276 DTCC Letter at 2.

277 See CPMI-IOSCO Quantitative Disclosure Results – Q3 2016, supra note 250, at 14.

278 NSCC has not yet implemented these rule changes. See note 27 supra.

279 The Commission notes that if NSCC's accelerated trade guaranty is not in effect by the effective date of this amendment, then the time that unsettled transactions are guaranteed by NSCC would change from two days to one day. In this case, the aggregate notional value of unsettled transactions at NSCC would fall from $48.4 billion under a T+3 standard settlement cycle to $24.2 billion under a T+2 settlement cycle. However, the overall reduction to the aggregate notional value of unsettled transactions at NSCC would remain the same, a reduction of $24.2 billion.

cycle would reduce the market risks associated with price movements during the settlement cycle.[280] A market participant that experiences counterparty default and enters into a new transaction under a T+3 settlement cycle is exposed to more market risk than would be the case under a T+2 settlement cycle. As a result, market participants that are exposed to market, credit, and liquidity risks would be exposed to less risk under a T+2 settlement cycle. To the extent that these transactions currently give rise to counterparty risk exposures between mutual funds and broker dealers, these exposures may decrease as a consequence of a shorter settlement cycle. The Commission notes that industry participants have suggested further benefits of a T+2 standard settlement cycle relative to a T+3 standard settlement cycle as a result of reduced procyclicality of counterparty exposures and clearing fund requirements, and presented an analysis consistent with such benefits.[281] These benefits depend on the assumptions that underlie models of counterparty exposures and clearing fund requirements.

A portion of the savings by intermediaries from less costly risk management under a T+2 standard settlement cycle relative to a T+3 standard settlement cycle may flow through to investors. Intermediaries such as broker-dealers may mitigate settlement risks through collateral requirements on their customers in the form of securities or cash. Such protection is likely to require less collateral to manage settlement risks when settlement cycles are shorter. To the extent that lower collateral needs result in lower collateral requirements, investors may be able to profitably redeploy financial resources once used to satisfy collateral requirements by, for example, converting them into less-liquid assets that offer higher returns in exchange for bearing additional liquidity risk. Several commenters identified additional benefits that investors may

280 ICI at 5; DTCC Letter at 2.

281 See DTCC, DTCC Recommends Shortening the U.S. Trade Settlement Cycle at 2-3 (Apr. 2014), http://www.ust2.com/industry-action/.

experience from a shorter settlement cycle through their intermediaries.[282] One commenter noted in the context of mutual funds that funds, as investors in the markets, would benefit from a shortened settlement cycle, and those benefits would flow to fund shareholders.[283] Another commenter noted that investors are exposed to their broker-dealer from the point of trade execution to settlement, further stating that if the broker-dealer were to go out of business during that time, the investor may be forced to re-execute the trade at a new market price.[284] The same commenter suggested that a shorter settlement cycle would reduce the charges and fees imposed by clearing broker-dealers on introducing broker-dealers.[285]

Industry participants might also individually benefit through reduced clearing fund deposit requirements. In the T+2 Proposing Release, the Commission cited industry estimates of cost savings associated with reduced clearing fund contributions. In response to the T+2 Proposing Release, one commenter cited an industry impact analysis estimating that projected reduction in average daily clearing fund requirements associated with two-day settlement cycle under NSCC's accelerated trade guaranty would be $533 million, or about 9% of average clearing fund requirements.[286] In addition, a shorter settlement cycle might reduce liquidity risk by allowing investors to obtain the proceeds of their securities transactions sooner. Reduced liquidity risk may be a benefit to individual investors, but it may also reduce the volatility of

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282 IDC at 1-2; SIFMA at 15-16.

283 IDC at 1-2.

284 SIFMA at 16.

285 SIFMA at 15.

286 SIFMA at 10. The commenter also noted that in the absence of the NSCC accelerated trade guaranty, the same impact analysis estimated a projected reduction in average daily clearing fund requirements of nearly $1.36 billion, or about 25% of average clearing fund requirements.

securities markets by reducing liquidity demands in times of adverse market conditions, potentially reducing the correlation between market prices and the risk management practices of market participants.[287] Several commenters included statements consistent with the view that shortening the settlement cycle would benefit investors by reducing liquidity demands and clearing capital requirements, and improving use of capital.[288]

In addition, the harmonization of the standard settlement cycle in the U.S. with settlement cycles in foreign markets that settle transactions on a T+2 settlement cycle may reduce the need for some market participants engaging in cross-border and cross-asset transactions to hedge risks stemming from mismatched settlement cycles and hence reduce related financing and borrowing costs, resulting in additional benefits. For example, under the current T+3 settlement cycle, a market participant selling a security in U.S. equity markets to fund a purchase of securities in European markets would face a one day lag between settlement in Europe and settlement in the U.S. The participant could choose between bearing an additional day of market risk in the European trading markets by delaying the purchase by a day, or funding the purchase of European shares with short-term borrowing. Additionally, because FX transactions generally settle on a T+2 settlement cycle,[289] a market participant who expects to use the proceeds from the sale of securities transactions that settle on the standard settlement cycle in the U.S. to fund

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287 See Peter F. Christoffersen & Francis X. Diebold, How Relevant is Volatility Forecasting for Financial Risk Management?, 82 Rev. Econ. & Stat. 12 (2000), http://www.mitpressjournals.org/doi/abs/10.1162/003465300558597#.V6xeL_nR-JA. The paper shows that volatility can be predicted in the short run, and concludes that short run forecastable volatility would be useful for risk management practices.

288 Fidelity at 1; FSI at 3; IDC at 1; Newill at 1.

289 See, e.g., John W. McPartland, Foreign exchange trading and settlement: Past and present, The Federal Reserve Bank of Chicago, Essays on Issues No. 223 (Feb. 2006), https://www.chicagofed.org/~/media/publications/chicago-fed-letter/2006/cflfebruary2006-223-pdf.pdf.

the purchase of securities in Europe would also be faced with a choice between bearing an additional day of currency risk due to the need to purchase Euros as part of the transaction, or to incur the cost related to hedging away this risk in the forward market. Twelve commenters agreed that a T+2 standard settlement cycle would align the U.S. securities settlement cycle with several non-U.S. markets that have already moved to a T+2 settlement cycle, as well as markets that are planning or considering a move to a T+2 settlement cycle.[290]

The benefits of harmonized settlement cycles may also accrue to mutual funds. As described above,[291] transactions in mutual fund shares typically settle on a T+1 basis even when transactions in the securities purchase and sold by the fund settle on a T+3 basis. As a result, there is a two-day mismatch between when these funds make payments to shareholders that redeem shares and when they receive cash proceeds for portfolio securities they sell.[292] Two commenters noted that the risk reduction benefits of a T+2 standard settlement cycle would also flow to mutual fund transactions. One commenter noted that a T+2 settlement cycle would reduce the funding gap between settlement of a mutual fund's portfolio securities and the settlement of shares, improving cash management for funds to meet redemptions.[293] The other commenter stated that a T+2 settlement cycle would harmonize the settlement time for securities

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[290] DTCC Letter at 2 and 3; FIF at 3; FSI at 3; ICI at 5-6; IDC at 1; MFA at 2; Newill at 1; SIFMA at 16; STA at 1-2; Thomson Reuters at 3; WFA at 3; Wee at 1-2.

[291] See supra note 78.

[292] Retail funds which currently settle on T+3, however, already have harmonized settlement cycles with their underlying securities. As this amendment requires a T+2 settlement cycle for both these retail funds and their underlying securities, these retail funds would not see benefits stemming from a reduction in settlement cycle mismatch between retail fund shares and underlying securities.

[293] ICI at 4-5.

held by open-ended funds (i.e., mutual funds) with the settlement time for shares of mutual funds, which would enhance funds' cash management for meeting redemptions.[294]

The Commission believes that exceptions to Rule 15c6-1(a) set forth in paragraphs (b), (c), and (d) of Rule 15c6-1 are unlikely to substantially reduce the benefits of a shorter settlement cycle for most securities transactions. Market participants that rely on Rule 15c6-1(b) to transact in limited partnership interests that are not listed on an exchange or for which quotations are not disseminated through an automated quotation system of a registered securities association are likely to continue to make use of that exception under the amendment to Rule 15c6-1(a). Similarly, market participants involved in offerings that currently settle by the fourth business day under Rule 15c6-1(c) will likely continue to settle by T+4. There may be transactions covered by Rules 15c6-1(b) and (c) that in the past did not make use of these exceptions because they settled within three business days, but that may require use of these exceptions under the amendment because they require more than two days to settle. However, these markets are opaque, and the Commission does not have, nor did commenters provide, data on transactions in these categories that currently settle within three days but that might make use of this exception under the amendment.

In addition, the Commission notes that market participants involved in certain transactions will not experience substantial benefits related to reducing the maximum number of days required to settle most securities transactions. Specifically, market participants involved in transactions which now voluntarily settle in two days or less may experience fewer risk reduction benefits as a result of the amendment to Rule 15c6-1(a) than market participants that currently settle in the standard three business days.

[294] IDC at 1-2.

Finally, the extent to which different types of market participants experience any benefits that stem from the amendment to Rule 15c6-1(a) may depend on their market power. Market participants that have a greater ability to negotiate with customers or service providers may be able to retain a larger portion of the operational cost savings from a shorter settlement cycle than others, as they may be able to use their market power to avoid passing along the cost savings to their clients.

2. Costs

The Commission believes that compliance with a T+2 standard settlement cycle will involve initial fixed costs to update systems and processes.[295] The Commission has used input from comment letters and industry studies to quantify these costs to the extent possible in Part VI.C.5 below.

The operational costs associated with the amendment to Rule 15c6-1(a) for different market participants might vary depending on each participant's degree of direct or indirect inter-connectivity to the clearance and settlement process, regardless of size.[296] For example, clearing broker-dealers that internally manage more of their own post-trade processes will directly incur more of the upfront operational costs associated with the amendment to Rule 15c6-1(a), because they must directly undertake more of the upgrades and testing necessary for a T+2 standard settlement cycle. As mentioned in Part VI.C.5, other market participants might outsource the clearance and settlement of their transactions to third-party providers of back-office services. One commenter noted that the use of third party service bureaus would reduce the costs

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[295] Industry estimates have suggested some updates to systems and processes might yield operational cost savings after the initial update. See infra Part VI.C.5.a for industry estimates of the costs and benefits of the amendment to Rule 15c6-1(a).

[296] See infra Part VI.C.5 for more detail of the specific operational costs that each type of market participant may incur.

necessary to support a T+2 standard settlement cycle.[297] The exposures to the operational costs associated with shortening the standard settlement cycle will be indirect to the extent that third-party service providers pass through the costs of infrastructure upgrades to their customers. The degree to which customers bear operational costs depends on their bargaining position relative to third-party providers. Large customers with market power may be able to avoid internalizing these costs, while small customers in a weaker negotiation position relative to service providers may bear the bulk of these costs.

Further, changes to initial and ongoing operational costs may make some self-clearing market participants alter their decision to continue internally managing the clearance and settlement of their transactions. Entities that currently internally manage their clearance and settlement activity may prefer to restructure their businesses to rely instead on third-party providers of clearance and settlement services that may be able to amortize the initial fixed cost of upgrade across a much larger volume of transaction activity.

The way that different market participants are likely to bear costs as a result of the amendment to Rule 15c6-1(a) may also vary based on their business structure. For example, a shorter standard settlement cycle will require payment for securities that settle regular-way by T+2 rather than T+3 (subject to the exceptions in the rule). Generally, regardless of current funding arrangements between investors and broker-dealers, removing a day between execution and settlement would mean that broker-dealers could choose between requiring investors to fund the purchase of securities one day earlier while extending the same level of credit they do under T+3 settlement, or providing an additional day of funding to investors. In other words, broker-dealers could pass through some of the costs of a shorter standard settlement cycle by imposing

[297] SIFMA at 10.

the same shorter cycle on investors, or they could pass these costs on to investors by raising transactions fees to compensate for the additional day of funding the broker-dealer may choose to provide. The extent to which these costs get passed through to customers may depend on, among other things, the market power of the broker-dealer. At most, the broker-dealer might pass through the entire initial investment cost to its customers, while if the broker-dealer faces perfect competition for its customers, the broker-dealer may not pass along any of these costs to its customers.[298]

Retail investors and the broker-dealers that serve them may experience the burden of an earlier payment requirement differently from broker-dealers with more institutional clients or large custodian banks because of the way retail investors fund their accounts. One commenter stated the concern that a shortened settlement cycle would impose hardships on retail investors who transfer funds between financial institutions by paper check.[299] These retail investors might need to change the way that they fund their transactions as a result of the operational and technological changes required for a shorter settlement cycle. The Commission notes that after a transition to a T+2 standard settlement cycle broker-dealers may continue to accept paper checks from retail investors. However, retail investors that transfer funds by paper check may need to accelerate their payments associated with their transactions by one day.[300] For example, retail investors who previously mailed paper checks may instead deliver these checks overnight or by hand. While information on the number of paper checks currently used to fund transactions is not readily available, the Commission notes that the cost of overnight delivery of a single paper

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298 See supra Part VI.C.1 for further discussion of the impact of broker-dealer market power. See infra Part VI.C.5(3) for quantitative estimates of the costs to broker-dealers.

299 See Gellert.

300 See Part III.A.3.

check using the U.S. postal service is approximately $23.75,[301] and believes that the difference between this and first-class postage, $23.28, represents a reasonable estimate of the most inexpensive means of accelerating delivery of checks on a per-transaction basis.[302] In addition, broker-dealers that serve retail investors may also experience costs unrelated to funding choices. For instance, retail investors may require additional or different services such as education regarding the impact of the shorter standard settlement cycle.[303] Although the Commission does not believe that the amendment will directly prevent retail investors from the transfer of funds by paper check, the Commission believes that even if retail investors were required to fund their transactions more quickly, requiring a transition to a T+2 standard settlement cycle is appropriate in light of the expected benefits from reductions in credit, market, and liquidity risk in financial markets.

Several commenters noted that broker-dealers engaging in securities lending may incur additional implementation costs relative to other broker-dealers.[304] In particular, one commenter noted that these firms would need to train staff to adjust to a shortened recall cycle.[305] Another commenter noted that industry participants recognize and support the need for the move to T+2 settlement, despite the implication that this move will necessarily shorten the recall period by one day and require operational adjustments.[306] A third commenter stated that participants in

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301 The current postage rate for a U.S. Postal Service (USPS) Priority Mail Express 1-Day™ Flat Rate Envelope is $23.75. Other vendors' rates may vary.

302 Calculated as the difference between USPS Priority Mail Express 1-Day™ Flat Rate Envelope and first-class postage: $23.75 - $0.47 = $23.28.

303 See infra Part VI.C.5.b.3 for more on retail investors and their broker-dealers.

304 Thomson Reuters at 2; SIFMA at 18; Fidelity at 4.

305 See Thomson-Reuters at 2.

306 See SIFMA at 18.

securities lending transactions, including security lenders, security borrowers, and service providers, are currently addressing the impact of a shortened settlement cycle on their business models and trading strategies, notably that the move to T+2 will shorten the recall period by one day.[307]

At the same time, some market participants may face lower implementation costs as a result of their current business structure and practices. As mentioned earlier, 2011 DTCC affirmation data indicate that, on average, 45% of trades were affirmed on trade date, while 90% were affirmed on T+1.[308] In addition, market participants that trade in markets that have already implemented a T+2 settlement cycle may face lower costs in transitioning to a T+2 cycle in the U.S., as many of the systems and process improvements may already have been adopted in order to support settlement in other markets.

Finally, a shorter settlement cycle may result in higher costs associated with liquidating a defaulting member's position, as a shorter horizon for default management may result in larger price impacts, particularly for less liquid assets. For example, when a clearing member defaults, NSCC is obligated to fulfill its trade guaranty with the defaulting member's counterparty. One way it accomplishes this is by liquidating assets from clearing fund contributions from clearing members. However, depending on the composition of clearing fund deposits, the liquidation of clearing fund assets in a short period of time may have an adverse impact on the price of these assets. Shortening the standard settlement cycle from T+3 to T+2 would reduce the amount of time that NSCC would have to liquidate clearing fund deposits, which may exacerbate the price impact of liquidation. One commenter noted a similar negative impact in a different setting,

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[307] See Fidelity at 4.

[308] See supra Part VI.C.5(5) for discussion of foreign broker-dealers.

stating that broker-dealers required by Federal Reserve Board's Regulation T to liquidate a customer's unpaid transaction would have one less day to do so.[309] Broker-dealers may increase investments in pre-transaction risk management practices to compensate for the reduction in time available to liquidate a customer's unpaid transaction should the broker-dealer need to disaffirm a trade. In addition, the Commission notes that broker-dealers already rely on many risk management practices to mitigate the counterparty risks posed by their customers before the need to disaffirm a trade.[310]

3. Economic Implications through Other Commission Rules

As discussed in Part III.B, shortening the standard settlement cycle could have an ancillary impact on how market participants comply with existing regulatory obligations that relate to the settlement timeframe. The Commission provided examples of specific Commission rules that include such requirements or are otherwise are keyed-off of settlement date, including Regulation SHO,[311] and certain provisions included in the Commission's financial responsibility rules.[312]

Financial markets and regulatory requirements have evolved significantly since the Commission adopted Rule 15c6-1 in 1993. Market participants have responded to these developments in diverse ways, including implementing a variety of systems and processes, some of which may be unique to the market participant and its business, and some of which may be integrated throughout the market participant's operations. Because of the broad variety of ways in which market participants currently satisfy regulatory obligations pursuant to Commission

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309 BDA at 1-2.

310 See Part II.C.2 supra for a discussion of broker-dealer risk-management practices.

311 See supra Part III.C.1.

312 See supra Part III.C.2.

rules, in most circumstances it is difficult to identify with precision those practices that market participants will need to change in order to meet these other obligations. Under these circumstances, and without additional information, the Commission is unable to provide an estimate of the ancillary economic impact that the amendment to Rule 15c6-1(a) would have on how market participants comply with other Commission rules.

In certain cases, based on information about current market practices, the Commission believes that the amendment to Rule 15c6-1(a) is unlikely to change the means by which market participants comply with existing regulatory requirements. For example, under the amendment, broker-dealers will have a shorter timeframe to comply with the customer confirmation requirements of Exchange Act Rule 10b-10. However, the Commission understands that broker-dealers typically send physical customer confirmations on the day after trade date, and many broker-dealers send electronic confirmations to customers on trade date. The Commission believes that because of the lack of ancillary consequences in these cases, market participants are unlikely to bear additional costs to comply with these requirements under a shorter standard settlement cycle.

In certain cases, however, the amendment to Rule 15c6-1(a) may incrementally increase the costs associated with complying with other Commission rules where those rules potentially require broker-dealers to engage in purchases of securities within a specific period of time. Two examples of these types of rules are Regulation SHO and the Commission's financial responsibility rules. In most instances, Regulation SHO governs the timeframe in which a "participant" of a registered clearing agency must close out a fail to deliver position by purchasing or borrowing securities. In the event a market participant must alter current operations, practices or systems or develop new operations, practices or systems in order to comply with the current provisions of Regulation SHO, there may be associated costs. For example, if recalls of loaned securities need to be made one day sooner in order to comply with certain requirements under Regulation SHO, the broker-dealer will have to ensure its systems, staff and operations are prepared to make the adjustment to accommodate the change.[313]

Similarly, some of the Commission's financial responsibility rules relate to actions or notifications that reference the settlement date of a transaction. For example, Exchange Act Rule 15c3-3(m)[314] uses settlement date to prescribe the timeframe in which a broker-dealer must complete certain sell orders on behalf of customers. The settlement date is also incorporated into paragraph (c)(9) of Rule 15c3-1,[315] which explains what it means to "promptly transmit" funds and "promptly deliver" securities within the meaning of paragraphs (a)(2)(i) and (a)(2)(v) of Rule 15c3-1. As explained above, the concepts of promptly transmitting funds and promptly delivering securities are incorporated in other provisions of the financial responsibility rules.[316] Under the amendment to Rule 15c6-1(a), the timeframes included in these rules will be one business day closer to the trade date.

The Commission believes that shortening these timeframes will not materially affect the costs that broker-dealers are likely to incur to meet their Regulation SHO obligations and obligations under the Commission's financial responsibility rules after the settlement date. Nevertheless, the Commission acknowledges that a shorter settlement cycle could affect the

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313 See Part III.C.1 for the discussion of the impact of shortening the settlement cycle on complying with Regulation SHO. The costs of these adjustments are incorporated into the cost estimates in Part VI.C.5.b.3.

314 17 CFR 240.15c3-3(m).

315 17 CFR 240.15c3-1(c)(9).

316 See, e.g., 17 CFR 240.15c3-1(a)(2)(i), (a)(2)(v); 17 CFR 240.15c3-3(k)(1)(iii), (k)(2)(i), (k)(2)(ii); 17 CFR 240.17a-5(e)(1)(A); 17 CFR 240.17a-13(a)(3).

processes by which broker-dealers manage the likelihood of incurring these obligations. For example, broker-dealers may currently have in place inventory management systems that help them avoid failing to deliver securities by T+3. Broker-dealers may incur incremental costs in order to update these systems to support a shorter settlement cycle.

In cases where market participants will need to adjust the way in which they comply with other Commission rules, the magnitude of the costs associated with these adjustments is difficult to quantify. As noted above, market participants employ a wide variety of strategies to meet regulatory obligations. For example, broker-dealers may ensure that they have securities available to meet their obligations by using inventory management systems or they may choose instead to borrow securities. An estimate of costs is further complicated by the possibility that market participants could change their compliance strategies in response to the shortened standard settlement cycle. However, the Commission notes that some of the adjustment costs for compliance with other Commission rules, such as the stock loan recall requirements of Regulation SHO, and the prospectus delivery requirements of Securities Act Rule 172 are included in the cost estimates we provide in Part VI.C.5.[317]

4. Effect on Efficiency, Competition, and Capital Formation

A shorter standard settlement cycle will improve the efficiency of the clearance and settlement process through several channels. The Commission believes that the primary effect that a shorter settlement cycle would have on the efficiency of the settlement process would be a reduction in the credit, market, and liquidity risks that broker-dealers, CCPs, and other market

[317] Stock loan recall and prospectus delivery requirements were explicitly listed in the set of process updates necessary for T+2 in the T+2 Playbook, which was used to form our upper bound cost estimates. For the SIFMA survey cost estimates which the Commission uses as a lower bound for cost estimates, the Commission assumes that survey responders have incorporated these costs into their estimates.

participants are subject to during the standard settlement cycle. A shorter standard settlement cycle will generally reduce the volume of unsettled transactions that could potentially pose settlement risk to counterparties. By shortening the period between trade execution and settlement, trades can be settled with less aggregate risk to counterparties or the CCP. A shorter standard settlement cycle may also decrease liquidity risk by enabling market participants to access the proceeds of their transactions sooner, which may reduce the cost market participants incur to handle idiosyncratic liquidity shocks (i.e., liquidity shocks that are uncorrelated with the market). That is, because the time interval between a purchase/sale of securities and payment is reduced by one day, market participants with immediate payment obligations that they could cover by selling securities would be required to obtain short-term funding for one less business day.[318] As a result of reduced cost associated with covering their liquidity needs, market participants may, under particular circumstances, be able to shift assets that would otherwise be held as liquid collateral towards more productive uses, improving allocative efficiency.[319] Several commenters made similar arguments, noting the benefits of reduced liquidity risk and reduced collateral requirements.[320]

318 See supra Part VI.B.2.

319 See supra Part VI.A for more on collateral and allocative efficiency.

320 SIFMA at 15, ICI at 4-5, FIF at 2, WFA at 2. The SIFMA comment letter stated that CCPs will be better positioned to serve as a source of stability and efficiency within the clearance and settlement system when there is a shorter period of time during which they are exposed to credit, market, and liquidity risks, and provided DTCC's estimate of a reduction of nearly $1.36 billion in average daily clearing fund requirements for DTCC member firms (in the absence of NSCC's accelerated trade guaranty). The ICI letter also discussed the reduction in credit, market, and liquidity risk, and added that this will reduce liquidity gaps and enhance cash management for investment advisers and mutual funds as well as other institutional investors. WFA stated that a shortened settlement cycle would reduce systemic risks, free up capital, standardize global transaction settlement, and better meet customers' needs.

In addition, a shorter standard settlement cycle may increase price efficiency through its effect on credit risk exposures between financial intermediaries and their customers. In particular, a prior study noted that certain intermediaries that transact on behalf of investors, such as broker-dealers, may be exposed to the risk that their customers default on payment obligations when the price of purchased securities declines during the settlement cycle.[321] As a result of the option to default on payment obligations, customers' payoffs from securities purchases resemble European call options and, from a theoretical standpoint, can be valued as such. Notably, the value of European call options are increasing in the time to maturity[322] suggesting that the value of call options held by customers who purchase securities is increasing in the length of the settlement cycle. In order to compensate itself for the call option that it writes, an intermediary may include the cost of these call options as part of its transaction fee and this cost may become a component of bid-ask spreads for securities transactions. By reducing the value of customers' option to default by reducing the option's time to maturity, a shorter standard settlement cycle may reduce transaction costs in U.S. securities markets.[323] In addition, to the extent that any benefit buyers receive from deferring payment during the settlement cycle is incorporated in securities returns,[324] the amendment to Rule 15c6-1, as adopted, may reduce the extent to which these returns deviate from returns consistent with changes to fundamentals.

The Commission believes that the amendment to Rule 15c6-1(a) will likely require market participants to incur costs related to infrastructure upgrades and will likely yield benefits

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[321] See Madhavan et al., supra note 240.

[322] All other things equal, an option with a longer time to maturity is more likely to be in the money given that the variance of the underlying security's price at the exercise date is higher.

[323] One commenter agreed that a shorter settlement cycle could result in lower transactions costs. See Newill.

[324] See supra Part VI.B.2.

to market participants, largely in the form of reduced financial risks related to settlement. As a result, the Commission believes that the amendment to Rule 15c6-1(a) could affect competition in a number of different, and potentially offsetting, ways.

The prospective reduction in financial risks related to shortening the standard settlement cycle may represent a reduction in barriers to entry for certain market participants. Reductions in the financial resources required to cover an NSCC member's clearing fund requirements that result from a shorter standard settlement cycle could encourage financial firms that currently clear transactions through NSCC clearing members to become clearing members themselves. Their entry into the market could promote competition among clearing members at NSCC. Furthermore, if a reduction in settlement risks results in lower transaction costs for the reasons discussed above, market participants that were, on the margin, discouraged from supplying liquidity to securities markets due to these costs could choose to enter the market for liquidity suppliers, increasing competition.

At the same time, the Commission acknowledges that the technological and operational changes required to enable a shorter standard settlement cycle could adversely affect competition. Among clearing members, where such process improvements might be necessary to comply with the shorter standard settlement cycle required under the amendment to Rule 15c6-1(a), the cost associated with compliance might create barriers to entry, because new firms will incur higher fixed costs associated with a shorter standard settlement cycle if they wish to enter the market. Clearing members might choose to comply by upgrading their systems and processes or may choose instead to exit the market for clearing services. The exit of clearing members could have negative consequences for competition between clearing members. Clearing activity tends to be concentrated among larger broker-dealers, and the exit of clearing members could result in further concentration and additional market power for those clearing members that remain.[325]

Alternatively, some current clearing members may choose to comply by ceasing to be clearing members and instead outsourcing their operational needs to third-party service providers. Use of third-party service providers may represent a reasonable response to the operational costs associated with the amendment to Rule 15c6-1(a). While the costs associated with the amendment to Rule 15c6-1(a) may have adverse effects on competition between clearing members, including by increasing barriers to entry for broker-dealers who wish to become clearing member, the Commission believes that the use of third-party service providers may mitigate them. This is because, to the extent that third-party service providers are able to spread the fixed costs of compliance across a larger volume of transactions than their clients, the Commission believes that the use of third-party service providers might impose a smaller compliance cost on clearing members, including smaller broker-dealers, than if these firms directly bore the costs of compliance.

Existing market power may also affect the distribution of competitive impacts stemming from the amendment to Rule 15c6-1(a) across different types of market participants. While, as noted above, reductions in risk could promote competition among clearing members and liquidity suppliers, these groups may benefit to differing degrees, depending on the extent to which they are able to capture the benefits of a shortened standard settlement cycle. For example, clearing brokers tend to be larger than other broker-dealers,[326] and may generally be able to appropriate more of the savings from clearing fund deposit reductions for themselves if

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325 See id.

326 Id.

they have market power relative to their customers by passing only a small portion of savings through to their customers through fees or transactions costs. However, those broker-dealers that predominantly serve retail investors may be in a better bargaining position relative to those that predominantly serve institutional investors, and therefore may capture more of the benefits stemming from the amendment to Rule 15c6-1(a). Likewise, broker-dealers that serve retail investors may similarly be able to use their market power relative to their customers to retain more of the clearing fund deposit reduction as profits by maintaining their transaction costs and fees instead of passing these through to their customers. Institutional investors may be in a relatively better bargaining position by virtue of their large size and may be more likely to successfully negotiate lower fees or transaction costs and share in the savings associated with lower clearing fund deposits.

Finally, a shorter standard settlement cycle could improve the capital efficiency of the clearance and settlement process, which would promote capital formation in U.S. securities markets and in the financial system generally.[327] A shorter standard settlement cycle would reduce the amount of time that collateral must be held for a given trade, thus freeing the collateral to be used elsewhere earlier. Additionally, one commenter estimated that the move to a T+2 standard settlement cycle would reduce NSCC clearing fund deposits by an average of almost 9%, which translates into approximately $533 million of freed capital for NSCC's members.[328] The greater collateral efficiency promoted by a shorter settlement cycle might also indirectly promote capital formation for market participants in the financial system in general,

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[327] See supra Part VI.C.1. and Part VI.C.4. for more discussion about capital formation and efficiency.

[328] SIFMA at 10. The SIFMA comment letter also noted that DTCC estimated a reduction of nearly $1.36 billion in average daily clearing fund requirements for DTCC member firms in the absence of NSCC's accelerated trade guaranty.

because the proceeds from purchases and sales will be available to market participants faster, and allow those assets to be used for other purposes sooner. This would improve capital efficiency, as a given amount of collateral can support a larger amount of economic activity.

5. Quantification of Direct and Indirect Effects of a T+2 Settlement Cycle

Prior to the T+2 Proposing Release, industry groups released cost estimates for compliance with a shorter standard settlement cycle, including the SIA, the ISC, and BCG. In response to the T+2 Proposing Release, SIFMA and ICI retained the services of Deloitte & Touche LLC to analyze the results of the Industry Cost Survey that they conducted of asset managers, broker-dealers, and custody banks, as well as service bureaus and DTCC.[329] This survey provides cost estimates for the investments necessary for a T+2 standard settlement cycle. This economic analysis first summarizes the most recent cost estimates provided by commenters in the subsection immediately below and then, in the following subsections, provides the Commission's evaluation of these estimates as part of a discussion of the potential direct and indirect compliance costs related to the amendment to Rule 15c6-1(a).

a. Industry Estimates of Costs and Benefits

The SIFMA survey cost estimates have several advantages over the BCG Study cost estimates published in 2012. First, because the SIFMA survey cost estimates are more recent, they may take into account technological innovations that have occurred since 2012 that may have changed the cost of upgrades that a shorter standard settlement cycle could necessitate. In addition, the SIFMA survey cost estimates may also incorporate information about more recent investments many market participants have already made to support transition to a T+2

329 SIFMA at 10.

settlement cycle which may reduce the necessity of certain upgrades.[330] Finally, given the efforts of industry participants to publicize the transition to a T+2 standard settlement cycle, market participants may have a more concrete timeline upon which to base their cost estimates.

The Commission notes that some of the weaknesses of the BCG Study also apply to the SIFMA survey. As both studies rely on respondents to voluntarily provide information about their own cost estimates, the cost estimates may not be representative of the costs of all market participants. Given that the cost estimates in some industry categories had significant variation, it is not clear to what extent the costs of those industry participants who did not respond to the survey would differ from those that did. However, the response rates in different categories of industry participants varied significantly, which suggests that the potential for selection bias for the cost estimates may vary by participant category.

The SIFMA survey concluded that the transition to a T+2 standard settlement cycle would cost approximately $687 million in incremental initial investments across industry constituent groups.[331] This value is higher than the $550 million total cost estimate from the BCG Study in conducted in 2012.[332] The SIFMA survey contained 87 responses segmented by business model, including asset managers, clearing broker-dealers, introducing broker-dealers,

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330 See SIFMA at 13.

331 SIFMA at 24. The commenter stated its belief that these costs, while significant, reflect that its members and other market participants would bear the costs of the transition to a T+2 settlement cycle individually and by segment both reasonably and proportionately. The commenter further stated that the survey indicated that costs borne by various segments could be reduced because investments already made in system changes for firms operating in jurisdictions that maintain a T+2 settlement environment and widespread use of service bureaus to provide clearance and settlement services include the changes needed to support the initiative. SIFMA at 10. In addition, one other commenter stated that it does not believe the proposed amendment will impose any burdens on the industry in addition to those necessary to implement the industry initiative to move to T+2. Fidelity at 6.

332 SIFMA at 10.

self-clearing broker-dealers, custody banks, and service providers, to produce an average cost for the category of firm. The Commission's entity estimates for each category of firm from the T+2 Proposing Release were used to estimate the size of each category, and to produce the total cost estimate. In addition, the survey's estimates were grouped by the size of the firm, with this grouping based on assets under management ("AUM") for asset managers and on annual revenues for sell side and clearing firms.[333]

The investment costs for asset managers were estimated to be $74,000 per asset manager, and the total cost for all asset managers would be $71,410,000.[334] The 26 asset managers that responded to the survey represented approximately 48% of ICI fund members' assets in open ended mutual funds. The survey estimate for broker-dealers (clearing for others and self-clearing) is approximately $2,690,000, with the total cost for all broker-dealers (clearing for others and self-clearing) estimated to be $500,340,000.[335] The commenter noted that broker-dealer respondents provided cost estimates that varied significantly, and that some self-clearing firms reported much lower costs due to their use of third party service providers and the fact that some firms have already made the investments necessary to support a move to a T+2 settlement cycle given their presence in non-U.S. markets that operate on a T+2 settlement cycle. At the same time, other self-clearing firms reported much higher costs, up to $15.6 million.

The survey noted that introducing firms reported *de minimis* direct implementation costs, and estimates that each introducing broker-dealer would incur $30,000 of client outreach and

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333 SIFMA at 10-11. There was a broad range of firm sizes and business models, with asset managers with AUM ranging from $20 billion to over $200 billion and annual revenues of broker-dealers ranging from under $250 million to over $1 billion.

334 SIFMA at 24.

335 Id.

education costs. The survey estimated that custodian banks would have an average cost of $782,000, with a total cost for all custodian banks of $41,446,000.[336] The average cost estimate for service providers was $3,006,000, and the total cost estimate for all service providers was $18,036,000. As in the case for broker-dealers, the commenter notes that there was significant variation in cost estimates, as some service providers reported having already made the necessary investments. In addition, the survey notes that survey respondents were instructed not to include the costs of third party service party providers in their responses, to avoid double counting. The survey estimates that the average cost for ETC providers was $315,000 each, with the total cost for all Matching/ETC providers at $945,000. The estimated cost for NSCC and DTC was $10 million each, which was provided by DTCC.

b. Commission Estimates of Costs

The amendment to Rule 15c6-1(a) will generate direct and indirect costs for market participants, who may need to change multiple systems and processes to comply with a T+2 standard settlement cycle. As noted in Part IV above, the T+2 Playbook included a timeline with milestones and dependencies necessary for a transition to a T+2 settlement cycle, as well as activities that market participants should consider in preparation for the transition. The Commission believes that the majority of the activities of migration to a T+2 standard settlement cycle will stem from behavior modification of market participants and systems testing, and thus the majority of the costs of migration will be from labor. These modifications may include a compression of the settlement timeline, as well as an increase in the fees that brokers may impose on their customers for trade failures.

336 Id.

As noted by several commenters, many market participants work with third-party service providers for activities such as trade processing and asset servicing, and thus may only indirectly bear the costs of the requirements. In addition, some market participants already have the processes and systems in place to accommodate a T+2 settlement cycle or would be able to adjust to a T+2 settlement cycle with minimal cost. For example, some market participants may already have the systems and processes to reduce the amount of time needed for trade affirmation and matching.[337] These market participants may thus bear a significantly lower cost to update their trade affirmation to comply with a T+2 standard settlement cycle.

In the following section, the Commission examines several categories of market participants and estimates the compliance costs for each category. The Commission acknowledges that many entities are already undertaking activities to support a migration to a T+2 settlement cycle in anticipation of the amendment. However, to the extent that the costs of these activities have already been incurred, the Commission considers these as sunk costs and therefore does not include them in the analysis below.

(1) FMUs – CCPs and CSDs

NSCC and DTC systems and operations will require adjustment to support a T+2 standard settlement cycle. According to the T+2 Playbook and the ISC White Paper, regulation-dependent planning, implementation, testing, and migration activities associated with the transition to a T+2 settlement cycle could last up to five quarters.[338] In the T+2 Proposing

[337] See BCG Study, supra note 247, at 23; SIFMA at 4-5.

[338] See T+2 Playbook, supra note 209, at 11. To monetize the internal costs, Commission staff used data from the SIFMA publications. Our time estimates account for the fact that a portion of the timeline has already elapsed in anticipation of a transition to a T+2 standard settlement cycle, and those costs are already sunk.

Release, the Commission initially estimated that these activities will impose a one-time compliance cost of \$10.9 million[339] for DTC and NSCC each. The SIFMA survey stated that DTCC reported their estimated costs to be \$10 million each, \$6 million for the build out necessary for the test environment and \$4 million for T+2 system modifications.[340] These self-reported costs do not significantly differ from the Commission's nor the BCG Study's preliminary estimate.

(2) Matching/ETC Providers – Exempt Clearing Agencies

Matching/ETC Providers may need to adapt their trade processing systems to comply with a T+2 settlement cycle. This may include actions such as updating reference data, configuring trade match systems, and configuring trade affirmation systems to affirm trades by 12:00 p.m. on T+1. Matching/ETC Providers will also need to conduct testing and assess post-migration activities. In response to the SIFMA survey, Matching/ETC providers indicated an average cost of \$315,000 each. Given that two out of the three Matching/ETC providers responded to the survey, the Commission believes that the survey responses support a lower bound of the per-entity cost estimate to \$315,000. However, the Commission acknowledges that some Matching/ETC providers may have a higher or lower costs than others based on the volume of transactions that they process as well as the extent to which the ETC provider has already made the necessary investments for a T+2 settlement cycle. Thus, the Commission continues to believe that the \$10.9 million per entity estimate cost is a reasonable upper bound

339 The estimate is based on the T+2 Playbook timeline, which estimates regulation-dependent implementation activity, industry testing, and migration lasting five quarters. We assume 10 operations specialists (at \$129 per hour), 10 programmers (at \$256 per hour), and 1 senior operations manager (at \$345/hour), working 40 hours per week. $(10 \times \$129 + 10 \times \$256 + 1 \times \$345) \times 5 \times 13 \times 40 = \$10{,}907{,}000$.

340 SIFMA at 25; DTCC Letter at 3.

on the per-entity cost estimate for Matching/ETC Providers. The Commission expects that Matching/ETC providers will incur minimal ongoing costs after the initial transition to a T+2 settlement cycle because the Commission believes that the majority of the costs of migration to a T+2 settlement cycle entail behavioral changes of market participants and pre-migration testing.

(3) Market Participants – Investors, Broker-Dealers, and Custodians

The overall compliance costs that a market participant incurs in connection with the amendment to Rule 15c6-1(a) will depend on the extent to which it is directly involved in functions related to clearance and settlement, asset servicing, and other activities. For example, retail investors may bear few (if any) direct costs in a transition to a T+2 standard settlement cycle, because their respective broker-dealer handles the back-office functions of each transaction. However, as is discussed below, this does not imply that retail investors will not face indirect costs from the transition, such as those passed through from broker-dealers or banks.

Institutional investors may need to configure systems and update reference data, which may also include updates to trade funding and processing mechanisms, to operate in a T+2 environment. In the T+2 Proposing Release, the Commission preliminarily estimated that these would require an initial expenditure of $2.32 million per entity.[341]

The SIFMA survey estimated that asset managers would have an average cost of $74,000. The survey received 26 responses from asset managers, which represented $7.8 trillion in assets under management ("AUM"), approximately 48% of total ICI fund members' assets in open ended mutual funds. The average cost varied depending on the asset manager's size, with

[341] T+2 Proposing Release, supra note 1, 81 FR at 69275.

those with $20 billion to $250 billion in AUM with an approximate average cost estimate of $151,000, while the largest asset managers with over $200 billion in AUM had lower average costs of approximately $58,000. The SIFMA survey argued that this difference in cost may reflect the fact that larger asset managers may have already made system changes to support their activity in non-U.S. markets that have already moved to a T+2 settlement cycle.[342] Asset managers represent a subset of the institutional investors that will bear costs as a result of the amendment. Based on these survey responses, the Commission acknowledges that a portion of institutional investors will likely bear lower costs than was initially estimated, and the Commission is revising the lower bound of its per-entity cost estimate to the SIFMA survey estimates $74,000 per institutional investor. However, these costs may vary depending on the extent to which a particular institutional investor has already automated their trade processes, and the Commission is maintaining its initial estimate of $2.32 million as an upper bound cost estimate. The Commission expects institutional investors will incur minimal ongoing direct compliance costs after the initial transition to a T+2 standard settlement cycle.

Broker-dealers that serve institutional investors will not only need to configure their trading systems and update reference data, but may also need to update trade confirmation/affirmation systems, documentation, cashiering and asset servicing functions, depending on the roles they assume with respect to their clients. In the T+2 Proposing Release, the Commission preliminarily estimated that, on average, each of these broker-dealers would incur an initial compliance cost of up to $4.72 million.[343] We expect that these broker-dealers

342 See SIFMA at 24.

343 T+2 Proposing Release, supra note 1, 81 FR at 69275.

will incur minimal ongoing direct compliance costs after the initial transition to a T+2 standard settlement cycle.

Broker-dealers that serve retail investors may also need to spend significant resources to educate their clients about the shorter settlement cycle. In the T+2 Proposing Release, the Commission preliminarily estimated that these broker-dealers would incur an initial compliance cost of up to $8.6 million each.[344] Retail investors may require additional education and customer service, which may impose costs on their broker-dealers. The Commission preliminarily estimated that a reasonable upper bound for the costs associated with this requirement is $30,000 per broker-dealer.[345]

The SIFMA survey reported that introducing firms reported a *de minimis* direct implementation investment cost, as the necessary investments were made at their clearing firms and other service providers.[346] The survey also stated that introducing firms would likely only have costs related to employee education and outreach to customers, and used the Commission estimate of $30,000 for each introducing firm for these costs.[347] Given the survey responses, the Commission believes that the total average cost of $30,000 is an appropriate lower bound for the per-entity cost for introducing firms, and that the previous estimate from the T+2 Proposing Release of $8,630,000 remains an appropriate upper bound.

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344 Id.

345 This estimate is based on the assumption that a broker-dealer chooses to educate customers using a 10-minute view that takes at most $3,000 per minute to produce. See Crowdfunding, Exchange Act Release No. 76324 (Oct. 30, 2015), 80 FR 71388, 71529 & n.1683 (Nov. 16, 2015).

346 SIFMA at 12.

347 See SIFMA at 24.

Assuming all clearing and introducing broker-dealers must educate retail customers, the total costs of retail investor education would be approximately $50.5 million for all broker-dealers.[348]

Custodian banks will need to update their asset servicing functions to comply with a shorter settlement cycle. In the T+2 Proposing Release, the Commission preliminarily estimated that custodian banks would incur an initial compliance cost of $1.16 million per custodian bank.[349] The SIFMA survey estimated that the average cost for each custodian bank would be approximately $782,000, which the Commission uses as a lower bound estimate for the average cost. In addition, the Commission expects custodian banks to incur minimal ongoing compliance costs after the initial transition because most of the costs will stem from pre-migration updates and testing.

(4) Indirect Costs

In estimating these implementation costs, we note that market participants who bear the direct costs of the actions they undertake to comply with Rule 15c6-1 may pass these costs on to their customers. For example, retail and institutional investors might not directly bear the cost of all of the necessary upgrades for a T+2 settlement cycle, but might indirectly bear these costs as their broker-dealers might increase their fees to amortize the costs of updates among their customers. The Commission is unable to quantify the overall magnitude of the indirect costs that retail and institutional investors may bear, because it will depend on the market power of each broker-dealer, and its willingness to pass on the costs of migration to a T+2 standard settlement cycle to their customers. However, the Commission believes that in situations where broker-

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[348] Calculated as $30,000 per broker-dealer × (186 broker-dealers reporting as self-clearing + 1,497 broker-dealers reporting as introducing but not self-clearing) = $50,490,000.

[349] See T+2 Proposing Release supra note 1, 81 FR at 69275.

dealers have little or no competition, broker-dealers may at most pass on the entire cost of the initial investment to their customers. As discussed above, this could be as high as $4.72 million for broker-dealers that serve institutional investors, and $8.6 million for broker-dealers that serve retail investors. However, in situations where broker-dealers face heavy competition for customers, broker-dealers may bear the costs of the initial investment entirely, and avoid passing on these costs to their customers.

As noted in Part VI.A above, the ability of market participants to pass implementation costs on to customers likely depends on their relative bargaining power. For example, CCPs, like many other utilities, exhibit many of the characteristics of natural monopolies and, as a result, may have market power, particularly relative to broker-dealers who submit trades for clearing. This means that they may be able to share implementation costs they directly face related to shortening the settlement cycle with broker-dealers through higher clearing fees. Conversely, if institutional investors have market power relative to broker-dealers, broker-dealers may not be in a position to impose indirect costs on them.

(5) Industry-Wide Costs

To estimate the aggregate, industry-wide cost of a transition to a T+2 standard settlement cycle, the Commission takes its per-entity estimates and multiplies them by its estimate of the respective number of entities. The Commission estimates that there are 965 buy-side firms, 186 broker-dealers, and 53 custodian banks.[350] Additionally, as noted in Part III.C.1.c above, there

350 The estimate for the number of buy-side firms is based on the Commission's 13(f) holdings information filers with over $1 billion in AUM, as of December 31, 2015. The estimate for the number of broker-dealers is based on FINRA FOCUS Reports of firms reporting as self-clearing. See supra note 258 and accompanying text. The estimate for the number of custodian banks is based on the number of "settling banks" listed in DTC's Member Directories, available at http://www.dtcc.com/client-center/dtc-directories.

are three Matching/ETC Providers, and 1,683 broker-dealers that will incur investor education costs. One way to establish a total industry initial compliance cost estimate would be to multiply each estimated per-entity cost by the respective number of entities and sum these values, which would result in an estimate of $4.0 billion.[351] The Commission, however, believes that this estimate is likely to overstate the true initial cost of transition to a T+2 settlement cycle for a number of reasons, and thus uses this value as an upper bound for our cost estimates. First, the Commission's per-entity estimates do not account for the heterogeneity in market participant size, which may have a significant impact on the costs that market participants face. While the SIFMA survey and the BCG Study included both estimates of the number of entities in different size categories as well as estimates of costs that an entity in each size category is likely to incur, it did not provide sufficient underlying information to allow the Commission to estimate the relationship between market participant size and compliance cost and thus the Commission cannot produce comparable estimates.

Second, the Commission's estimate assumes that broker-dealers will not repurpose existing systems that allow them to participate in foreign markets that require settlement by T+2. For example, approximately 99 of the broker-dealers that reported self-clearing also reported that they were affiliates or subsidiaries of foreign broker-dealers or banks. To the extent that a broker-dealer has a foreign affiliate or parent that already has systems in place to support T+2 settlement in foreign markets, it may bear lower costs under the proposed amendment to Rule 15c6-1(a) than the estimate above. Removing all 99 of these broker-dealers from the

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[351] Calculated as 186 broker-dealers (self-clearing) × $8,606,000 + 1683 broker-dealers (self-clearing and introducing) × $30,000 + 53 custodian banks × $1,159,000 + 965 buy-side firms × $2,319,000 + 3 Matching/ETC Providers × $10,900,000 + 2 FMUs × $10,900,000 = $ 4,005,034,800.

computation of total industry initial compliance cost estimate presented above results in a reduction of this estimate to approximately $3.2 billion.[352] One commenter stated that those firms that had already made investments to support the move to T+2 settlement in Europe were expected to be able to draw on their experience to rely on already modified systems to support the move in their U.S. operations.[353]

Third, investments by third-party service providers may mean that many of the estimated compliance costs for market participants are duplicated. The SIFMA survey and BCG Study suggests that the use of service providers may yield a savings of $194 million, reducing aggregate costs by approximately 29%.[354] Based on information gathered from the recent available financial reports of service providers, the Commission believes that a reasonable range of estimates for the average cost reduction associated with service providers across all entities could be between 16% and 32%.[355] Applying this range to the total industry initial compliance cost estimate presented above yields a range of total industry initial compliance cost estimates between $2.7 billion and $3.4 billion. One commenter supported this point, stating that "[s]ome

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352 Calculated as 87 broker-dealers (self-clearing) × $8,606,000 + 1683 broker-dealers (self-clearing and introducing) × $30,000 + 53 custodian banks × $1,159,000 + 965 buy-side firms × $2,319,000 + 3 Matching/ETC Providers × $10,900,000 + 2 FMUs × $10,900,000 = $ 3,153,040,800.

353 See SIFMA at 12.

354 See BCG Study supra note 247, at 79.

355 Commission Staff hand collected information on operating margins for business segments related to settlement services of three large service providers for fiscal years 2013, 2014, and 2015. The median estimate was 16.4%. To arrive at the lower bound of 16%, the Commission assumes service providers capture all of the cost reduction they provide; to arrive at the upper bound, the Commission assumes that service providers share half of the overall cost reduction with their customers. Generally, the extent to which service providers share the efficiencies they provide with their customers may depend on service providers' bargaining power. See, e.g., Binmore, Ken, Ariel Rubinstein, and Asher Wolinsky, The Nash Bargaining Solution In Economic Modelling, The RAND Journal of Economics, 17, no. 2, Summer, 1986, at 176-188.

self-clearing firms reported that they anticipate making only *de minimis* investments beyond client communications and staff education, due to their use of third party service providers that will make the bulk of necessary investments."[356]

Taking into account potential cost reductions due to repurposing existing systems and using service providers as described above, the Commission initially estimated that $2.1 billion to $4.2 billion represented a reasonable range for the total industry initial compliance costs.[357] Having reviewed the survey data provided by SIFMA, the Commission believes that compliance costs for some types of entities may be lower than initially estimated in the T+2 Proposing Release and has revised down the lower bound of this range to $687 million. However, the Commission notes that the survey information also suggested substantial variation in per entity costs and, as a result, the Commission believes that $4.2 billion continues to be a reasonable upper bound for this range.

In addition to these initial costs, a transition to a T+2 standard settlement cycle may also result in certain ongoing industry-wide costs. Though the Commission believes that a move to a T+2 standard settlement cycle will generally bring with it a reduced reliance on manual processing, a shorter settlement cycle may also exacerbate remaining operational risk. This is because a shorter settlement cycle would provide market participants with less time to resolve errors. For example, if there is an entry error in the trade match details sent by either counterparty for a trade, both counterparties would have one extra business day to resolve the error under the baseline than in a T+2 environment. For these errors, a shorter settlement cycle may increase the probability that the error ultimately results in a settlement fail. However, given

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356 See SIFMA at 12.

357 See T+2 Proposing Release, supra note 1, 81 FR at 69276.

the variety of operational errors that are possible in the clearance and settlement process and the low probability of some of these errors, the Commission is unable to quantify the impact that shortening the standard settlement cycle to T+2 may have on the ongoing industry-wide costs stemming from a potential increase in operational risk.

Another industry-wide potential cost of shortening the standard settlement cycle is related to CCP member default. A shorter settlement cycle may provide CCPs with a shorter time horizon in which to manage a defaulting member's outstanding settlement obligations. Besides potentially increasing the operational risks associated with default management, a shorter standard settlement cycle may also have implications for CCPs that must liquidate a defaulting member's securities and, if circumstances require, the securities of non-defaulting members, in order to meet payment obligations for unsettled trades. A shorter standard settlement cycle leaves a CCP with less time in which to liquidate the securities and may increase the price impact associated with liquidation.

Current margin models at CCPs may account for the price impact associated with liquidating collateral. Although a CCP's margining algorithm may account for the additional impact generated by a shorter liquidation horizon for the defaulting member's clearing fund deposits, margin requirements may not reflect the costs that a liquidation over a shorter horizon may impose on other market participants. For example, a CCP may impose haircuts on collateral to account for the costs of liquidating collateral in the event of a clearing member default, causing clearing members to internalize a portion of the cost of liquidating illiquid assets. While the haircut may mitigate the risk that the price impact associated with liquidation of collateral assets over a shorter period of time causes the CCP to fail to meet its settlement obligations, the reduction in the price of collateral assets may affect other market participants who may be sensitive to the value of these assets.

D. Consideration of Alternatives

1. Shift to a T+1 Standard Settlement Cycle

Although the Commission proposed a two day standard settlement cycle, the Commission acknowledged that amending Rule 15c6-1(a) to further shorten the standard settlement cycle (e.g., T+1 or T+0) could potentially result in further risk reduction in the national clearance and settlement system.[358] The T+2 Proposing Release requested comment on whether the standard settlement cycle should be shortened to T+1 or some other shorter settlement cycle, as well as the reasons for or against such further shortening.[359] The Commission stated its preliminary belief that shortening the standard settlement cycle to T+2 is the appropriate step to take at this time because implementing a T+1 or T+0 settlement cycle could require market participants to incur comparatively larger investments and would necessitate more lead time and greater coordination.[360]

The Commission has considered standard settlement cycles shorter than T+2, along with the related comments, and does not believe that a shorter settlement cycle is appropriate at this time. [361] The Commission believes that although a move to a T+1 standard settlement cycle

358 T+2 Proposing Release, supra note 1, 81 FR at 69259.

359 Id. at 69262.

360 Id. at 69259.

361 The Commission noted in the T+2 Proposing Release that the Commission's Investor Advisory Committee ("IAC") issued in February 2015 a public statement noting that shortening the settlement cycle will mitigate operational and systemic risk, as well as "reduce credit, liquidity, and counterparty exposure risks," which will benefit both the securities industry and individual investors. See 81 FR at 69255. In its recommendation, the IAC stated that it "strongly endorsed the direction of the recommendation by DTCC" to shorten the settlement cycle to T+2, but recommended implementing a T+1 settlement cycle (rather than a T+2 settlement cycle), noting that retail investors

could have similar qualitative benefits of market, credit, and liquidity risk reduction as a move to a T+2 standard settlement cycle, the types of investments and changes necessary to move to a T+1 standard settlement cycle will also introduce greater costs for market participants.

As stated earlier, a T+1 standard settlement cycle might result in a larger reduction in certain settlement risks than would result from a T+2 standard settlement cycle because, as explained above, the risks associated with counterparty default tend to increase with the passage of time. Price volatility, as measured by the standard deviation of a price, is concave in time, which means that as a period of time increases, volatility will increase, but at a decreasing rate. This suggests that the reduction in price volatility from moving from T+2 settlement to T+1 settlement is larger than the reduction in price volatility from moving from T+3 settlement to T+2 settlement. Similarly, assuming constant trading volume, the volume of unsettled trades for a T+1 standard settlement cycle would be reduced again by one-third, and, as a result, for any given adverse movement in prices, the financial losses resulting from counterparty default will be two-thirds less than those under a T+3 standard settlement cycle.

A few commenters urged the Commission to adopt a T+1 or shorter standard settlement cycle citing benefits similar to those of a T+2 standard settlement cycle, but greater in magnitude.[362] One commenter argued that the Commission should adopt a T+1 standard settlement cycle precisely because it would require more investments and transformations in

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would significantly benefit from a T+1 settlement cycle. According to the IAC, moving to a T+1 settlement cycle, matching the settlement cycle that already exists for treasuries and mutual funds, would greatly reduce systemic risk and benefit investors. See Investor Advisory Committee, U.S. Securities and Exchange Commission, Recommendation of the Investor Advisory Committee: Shortening the Settlement Cycle in U.S. Financial Markets (Feb. 12, 2015), http://www.sec.gov/spotlight/investor-advisory-committee-2012/settlement-cycle-recommendation-final.pdf.

[362] CFA at 1-4; Spydell; Parker.

securities processing.[363] This commenter stated that while the proposal constitutes an improvement over the status quo, the proposal is "woefully" insufficient to properly protect market participants from credit, market, and liquidity risks, safeguard the financial system from excessive and unnecessary threats, and ensure the timely processing of investors transactions. The commenter urged the Commission to go further to mitigate these shortcomings, including by moving without undue delay toward a T+1 standard based on STP. The commenter stated that T+2 still constitutes an unreasonably lengthy settlement process "in this day and age," and effectively preserves other suboptimal processes within the settlement cycle.[364]

An additional commenter stated that the proposal did not go far enough to treat all investors equally and the settlement cycle should be "24 hours maximum and 1 hour at a minimum."[365] Another commenter stated that it was time to implement "instantaneous" settlement of trades, noting that the practical impact of longer settlement cycles is that if he is

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363 CFA at 1.

364 CFA at 2, 3. More specifically, the commenter argued that a longer cycle allows settlement processes to be structured in inefficient ways that are iterative, redundant, and error prone, and a T+2 settlement cycle does not necessarily address these issues because, although a T+2 settlement cycle requires reducing the time between steps in the settlement process, it does not necessarily require the fundamental overhaul of settlement procedures so that they are most efficient, automated, and least error-prone. While acknowledging that a direct move to a T+1 settlement cycle would require higher initial costs compared with a move to a T+2 settlement cycle, the commenter stated that those costs would be "paid back" in a relatively short amount of time.

In addition, the commenter opposed what it characterized as the industry coalescing around the idea that the Commission should adopt at a 'T+2' standard and then pause for further assessment of industry readiness and appetite for a future move to T+1. The commenter further argued that the industry has already proven it is unwilling or unable to move collectively and in a timely manner toward a shorter and more automated settlement cycle, even one that is based on T+2 timeframe.

365 Spydell.

"actively trading," the commenter would not have access to the proceeds of a transaction until it settled and therefore had to keep funds "un-invested" at all times.[366]

Another commenter stated that cash account customers' transactions handled as principal by the executing broker should be settled on a next day (T+1) basis and that same day settlement of principal trades may be possible. In support of these statements, the commenter observed that it is common for execution, clearance, settlement, and custody to be provided by a single entity or interrelated entities, and that when this occurs, all aspects of the trade have occurred the instant that execution has been recorded on the customer account. The commenter further stated that these are effectively cash on delivery ("COD") transactions and require only the sweep of funds to/from an individual's sweep account for their settlement. Finally, the commenter noted that funds available for trading by individual accounts are adjusted instantly following a trade, but when an outside sweep account is used, the sweep account may adjust only at day's end.[367]

The Commission believes that the initial costs of complying with a T+1 standard settlement cycle will be greater than with a T+2 standard settlement cycle. Successful transition to a settlement cycle that is shorter than T+2 could require larger investments by market participants to adopt new systems and processes. The upgrades necessary for a T+1 standard settlement cycle might include changes such as a transformation of lending and foreign buyer processes, real-time or near real-time trade processing capabilities, as well as a further acceleration of the retail funding timeline, which would require larger structural changes to the settlement process and more cross-industry coordination than the upgrades for a T+2 standard settlement cycle would. Because these upgrades could require more changes across multiple

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366 Parker.

367 Finn I.

markets and settlement systems, they may be more expensive to implement than the upgrades necessary for T+2 settlement. Additionally, the lead time and level of coordination by market participants required to implement such changes to transition to a T+1 standard settlement cycle would be longer and greater than the time and coordination required to move to a T+2 standard settlement cycle, which could delay the realization of the risk-reducing benefits of shortening the settlement cycle and increase the risk that market participants would not be able to transition to a T+1 standard settlement cycle in a coordinated fashion.

Several commenters argued against a move to a T+1 standard settlement cycle at this time for similar reasons, citing the industry coordination challenges, higher investment costs, and the longer time needed to recoup the investment.[368] One such commenter stated that the implementation effort, in terms of system and process changes, is considerably more to move to T+1, and that shifting efforts to achieve T+1 at this time would only delay "our ability" to achieve the risk reduction associated with the T+2 initiative.[369] Another commenter representing two of the registered clearing agencies that would be most impacted by the T+2 proposal stated that shortening the settlement cycle to T+0 or T+1 would present significant challenges and changes for many industry members.[370] The commenter further stated that transitioning to a T+1 or T+0 model would likely require a significantly larger effort across the industry due to the significant investments required to react to major process changes in existing business practices.[371] In addition, the commenter noted, some firms may incur significant investment

368 Thomson Reuters at 2, WFA at 3, MFA at 2, and DTCC Letter at 4.

369 Thomson Reuters at 2.

370 DTCC Letter at 3.

371 Id.

costs when implementing new systems and/or transitioning existing systems from batch mode of operation to near real-time.[372]

Another commenter expressed support for the Commission's proposal and stated that the commenter does not believe consideration of alternative settlement options is appropriate at this time.[373] An additional commenter noted its agreement with the reasons the Commission's proposal provides for transitioning to T+2 rather than T+1, and concurred that the costs associated with the T+2 proposal are proportionate to the benefits to investors.[374] The commenter further stated that it was not sure a change to T+1 would justify the additional expense to investors at this time, but did not provide any data to support their statement.[375]

Two studies have examined the costs and benefits of a transition to a T+1 settlement cycle. The BCG Study examined the costs and benefits of a T+1 settlement cycle as an alternative to a T+2 settlement cycle, while the SIA T+1 Business Case, published in 2000, examined only a T+1 settlement cycle.

The BCG Study estimated that the transition to a T+1 settlement cycle would cost the industry $1.77 billion in incremental investments (compared to $550 million for a T+2 settlement cycle), with an annual operational cost savings of $175 million per year and $35 million from clearing fund reductions (compared to $170 million and $25 million per year in a T+2 settlement cycle, respectively). Risk reduction benefits were estimated to be $410 million for a T+1 settlement cycle (compared to $200 million per year in a T+2 settlement cycle).[376]

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372 Id.

373 WFA at 3.

374 MFA at 2.

375 Id.

376 See BCG Study, supra note 247, at 41.

Although the Commission believes that these numbers cannot be fully accepted as cost estimates for the amendment to Rule 15c6-1(a),[377] the magnitude of the difference between the BCG Study's T+2 and T+1 cost and benefit estimates likely indicate additional larger structural changes necessary to transition to a T+1 standard settlement cycle. However, the Commission notes that these studies evaluated technology and operations that were in use prior to 2012.

In addition, the SIA Business Case Report estimated the initial investment cost of a shortened standard settlement cycle to T+1 to be $8 billion, with net annual benefits of $2.7 billion per year. The report estimated that broker-dealers would have an initial investment of $5.4 billion, with net annual benefits of $2.1 billion per year; asset managers would have an initial investment of $1.7 billion, with net annual benefits of $403 million per year; custodians would have an initial investment of $600 million, with net annual benefits of $307 million per year; and infrastructure service providers would have an initial investment of $237 million, with net annual loss of $81 million per year.[378] Although the SIA estimates have higher costs and benefits than the estimates in the BCG Study, the SIA estimates were made in 2000, and are much older than the BCG Study estimates, which were made in 2012. In the seventeen years since the publication of the SIA Business Case Report, significant technological and industry changes may have affected the costs and benefits of a T+1 standard settlement cycle, which may limit the usefulness of the report's estimates for assessing the costs and benefits of a T+1 standard settlement cycle today.

Further, the Commission believes that a move to a T+1 standard settlement cycle could introduce certain financial risks and costs as a result of its impact on transactions in certain

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377 See supra Part VI.C.5.a.

378 See SIA Business Case Report at 3.

foreign markets. As discussed in the T+2 Proposing Release, the Commission believes that shortening the settlement cycle further than T+2 at this time may increase funding costs for market participants who rely on the settlement of foreign currency exchange ("FX") transactions to fund securities transactions that settle regular way. As noted in the T+2 Proposing Release, because the settlement of FX transactions occurs on T+2, market participants who seek to fund a cross-border securities transaction with the proceeds of an FX transaction would, in a T+1 or T+0 environment, be required to settle the securities transaction before the proceeds of the FX transaction become available and would be required to pre-fund securities transactions in foreign currencies. Under these circumstances, a market participant would either incur opportunity costs and currency risk associated with holding FX reserves or be exposed to price volatility by delaying securities transactions by one business day to coordinate settlement of the securities and FX legs. In addition, shortening the settlement cycle to T+1 at this time may make it more difficult for market participants to timely settle cross-border transactions because the U.S. settlement cycle would not be harmonized with non-U.S. markets that have already transitioned to a T+2 settlement cycle.[379] The disparity between the settlement cycles would most likely increase the costs associated with such cross-border transactions.

The Commission agrees that a successful transition to a settlement cycle shorter than T+2 would require comparatively larger investments by market participants to adopt new systems and processes, and the additional lead time necessary to implement such an approach would delay the realization of the expected benefits from a reduction of credit, market, liquidity, and systemic

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379 For further discussion regarding the potential benefits of harmonization of settlement cycles for market participants engaging in cross-border transactions, see supra Part III.A.4.

risk that are expected to result from shortening the standard settlement cycle to T+2.[380] On balance, for the reasons discussed herein the Commission believes that it is appropriate to adopt a T+2 standard settlement cycle at this time. However, the Commission believes that establishing a T+2 settlement cycle does not foreclose, and could promote, ongoing efforts by market participants to explore in a meaningful and considered manner the possibility of moving to further shorten the standard settlement cycle. Further, the Commission notes that the costs incurred to transition to a T+2 settlement cycle will likely impact the costs that may be incurred for future reductions in the settlement cycle.

2. Straight-Through Processing Requirement

The Commission has also considered the consequences of mandating specific clearance and settlement practices, such as STP, in lieu of the amendment to Rule 15c6-1(a). STP involves the electronic entry of trade details during the settlement process, which avoids the manual entry and re-entry of trade details. By avoiding the manual entry of trade details, STP can speed up the settlement process as well as reduce error rates. However, the Commission believes that although many of the costs and benefits of a T+2 standard settlement cycle could be achieved by mandating specific clearance and settlement practices, there are several reasons why mandating a shorter standard settlement cycle may substantively differ from a specific practice requirement.

First, the Commission believes that many of the amended rule's benefits stem directly from the fact that the length of the settlement cycle has been shortened, and not from the particular practices used to comply with the amendment. As discussed above in Part III.A, the Commission believes that shortening the standard settlement cycle is likely to reduce a number

[380] Conditional on the availability of data and information, the staff of the Commission will assess, among other things, the impact of the rule on financial risk management in its report to the Commission. See Part III.A.3.

of risks associated with securities settlement, including credit and market risks that stem from counterparty exposures. Moreover, the Commission believes that intermediaries that manage these types of risk as a result of their role in the clearance and settlement system may share a portion of potential cost savings associated with reduced risks with market participants. While the Commission acknowledges that an alternative approach that primarily focuses on mandating STP may achieve some of the operational benefits associated with a shortened standard settlement cycle, such an approach may not reduce counterparty exposures and attendant risks.

Three of the commenters that have expressed support for a T+2 or shorter settlement cycle have identified STP as an important practice that would facilitate a shortened standard settlement cycle.[381] However, no commenter argued specifically for the Commission to mandate a STP requirement. While the Commission recognizes that STP may be a natural enabler for a shorter settlement cycle, it may not be the most efficient enabler available to firms. The Commission believes that market participants have a variety of methods to comply with a T+2 standard settlement cycle, and may prefer the least costly method of shortening the settlement cycle. By allowing market participants to choose how to comply with a shorter standard settlement cycle, rather than mandating a specific practice, the amendment to Rule 15c6-1(a) may allow the market to realize the benefits of a shorter standard settlement cycle at the lowest cost to market participants.

Additionally, mandating specific clearance and settlement practices instead of mandating a shortened standard settlement cycle may have adverse effects on competition in the market for back-office services. Back-office service providers may have a variety of methods to help their clients comply with a shorter settlement cycle, and mandating specific clearance and settlement

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[381] See ICI at 5; SIFMA at 14; Bloomberg at 2.

practices may adversely affect the number of providers that market participants might use, and a reduction in competition among back-office service providers that can comply with required practices may result in higher compliance costs for market participants. One commenter specifically argued against a mandate on specific practices, citing to the potential for an adverse effect on competition and innovation for back-office services.[382]

VII. Final Regulatory Flexibility Analysis

This Final Regulatory Flexibility Analysis has been prepared in accordance with the Regulatory Flexibility Act ("RFA").[383] It relates to the amendment to Rule 15c6-1(a) under the Exchange Act. An Initial Regulatory Flexibility Analysis ("IRFA") was prepared in conjunction with the T+2 Proposing Release in September 2016.[384] The T+2 Proposing Release included, and solicited comment on, the IRFA.

A. Need for the Rule

The Commission is adopting the amendment to Rule 15c6-1(a) under the Exchange Act to achieve the benefits of shortening the standard settlement cycle to T+2 discussed above, such as the further reduction of credit, market, and liquidity risk, and as a result a reduction in systemic risk, for U.S. market participants.[385]

B. Summary of Significant Issues Raised by Public Comment

As noted above, the T+2 Proposing Release solicited comment on the IRFA. Although the Commission received no comments specifically concerning the IRFA, one commenter discussed the one-time costs introducing broker-dealers, a subset of which are small entities, may face to

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382 Bloomberg at 2-3.

383 5 U.S.C. 604.

384 See Proposing Release, supra note 1, 81 FR at 69279-80.

385 See Part III supra.

support the initial transition to a shorter settlement cycle.[386] This comment is discussed further below.

C. Description and Estimation of Number of Small Entities Subject to the Rule

Paragraph (c) of Rule 0-10 under the Exchange Act provides that, for purposes of Commission rulemaking in accordance with the provisions of the RFA, when used with reference to a broker or dealer, the Commission has defined the term "small entity" to mean a broker or dealer: (1) with total capital (net worth plus subordinated liabilities) of less than $500,000 on the date in the prior fiscal year as of which its audited financial statements were prepared pursuant to Rule 17a-5(d) under the Exchange Act,[387] or if not required to file such statements, a broker-dealer with total capital (net worth plus subordinated liabilities) of less than $500,000 on the last business day of the preceding fiscal year (or in the time that it has been in business, if shorter); and (2) is not affiliated with any person (other than a natural person) that is not a small business or small organization.[388]

The amendment to Rule 15c6-1(a) prohibits broker-dealers, including those that are small entities, from effecting or entering into a contract for the purchase or sale of a security (other than an exempted security, government security, municipal security, commercial paper, bankers' acceptances, or commercial bills) that provides for payment of funds and delivery of securities no later than the second business day after the date of the contract unless otherwise expressly

386 See SIFMA at 12.

387 17 CFR 240.17a-5(c).

388 17 CFR 240.0-10(d).

agreed to by the parties at the time of the transaction. Currently, based on FOCUS Report[389] data, as of December 31, 2015, it is estimated that there are 1,235 broker-dealers that may be considered small entities.

D. Projected Reporting, Recordkeeping, or Other Compliance Requirements

The amendment to Rule 15c6-1(a) will not impose any new reporting or recordkeeping requirements on broker-dealers that are small entities. However, the amendment to Rule 15c6-1(a) may impact certain broker-dealers, including those that are small entities, to the extent that broker-dealers may need to make changes to their business operations and incur certain costs in order to operate in a T+2 environment.

For example, conversion to a T+2 standard settlement cycle may require broker-dealers, including those that are small entities, to make changes to their business practices, as well as to their computer systems, and/or to deploy new technology solutions. Implementation of these changes may require broker-dealers to incur new or increased costs, which may vary based on the business model of individual broker-dealers as well as other factors. Additionally, conversion to a T+2 standard settlement cycle may also result in an increase in costs to certain broker-dealers who finance the purchase of customer securities until the broker-dealer receives payment from its customers. To pay for securities purchases, many customers liquidate other securities or money fund balances held for them by their broker-dealers in consolidated accounts such as cash management accounts. However, some broker-dealers may elect to finance the purchase of customer securities until the broker-dealer receives payment from its customers for those customers that do not choose to liquidate other securities or have a sufficient money fund

389 FOCUS Reports, or ''Financial and Operational Combined Uniform Single'' Reports, are monthly, quarterly, and annual reports that broker-dealers generally are required to file with the Commission and/or SROs pursuant to Exchange Act Rule 17a–5, 17 CFR 240.17a–5.

balance prior to trade execution to pay for securities purchases. Broker-dealers that elect to finance the purchase of customer securities may incur an increase in costs in a T+2 environment resulting from settlement occurring one day earlier unless the broker-dealer can expedite customer payments.

As discussed above, one commenter stated that introducing broker-dealers, including 1,235 firms that are small entities, may face a one-time cost to support the transition to a shorter settlement cycle.[390] The commenter estimated this cost, including education of employees and outreach to customers, to be $30,000 per introducing broker-dealer. The commenter also stated that introducing broker-dealers will benefit from the shorter settlement cycle by a reduction in liquidity risk and lower costs related to margin and other charges fees imposed by the introducing firm's clearing broker-dealer in association with managing credit risk. The commenter further stated that customers of introducing broker-dealers will realize significant benefits from a shorter settlement cycle, such as a more rapid return of the proceeds from a sale of a security.[391]

E. Description of Commission Actions to Minimize Effect on Small Entities

The Commission considered alternatives to the amendment that would accomplish the stated objectives of the amendment without disproportionately burdening broker-dealers that are small entities, including: differing compliance requirements or timetables; clarifying, consolidating, or simplifying the compliance requirements; using performance rather than design standards; or providing an exemption for certain or all broker-dealers that are small entities. The purpose of Rule 15c6-1(a) is to establish a standard settlement cycle for broker-dealer

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390 SIFMA at 12.

391 See note 346 supra and accompanying text for further discussion of this comment.

transactions. Alternatives, such as different compliance requirements or timetables, or exemptions, for Rule 15c6-1(a), or any part thereof, for small entities would undermine the purpose of establishing a standard settlement cycle. For example, allowing small entities to settle at a time later than T+2 could create a two-tiered market that could work to the detriment of small entities whose order flow would not coincide with that of other firms operating on a T+2 settlement cycle. Additionally, the Commission believes that establishing a single timetable (i.e., compliance date) for all broker-dealers, including small entities, to comply with the amendment is necessary to ensure that the transition to a T+2 standard settlement cycle takes place in an orderly manner that minimizes undue disruptions in the securities markets. With respect to using performance rather than design standards, the Commission used performance standards to the extent appropriate under the statute. In addition, under the amendment, broker-dealers have the flexibility to tailor their systems and processes, and generally to choose how, to comply with the rule.

VIII. Statutory Authority

The Commission is adopting an amendment to Rule 15c6-1 pursuant to the Commission's rulemaking authority set forth in Sections 15(c)(6), 17A and 23(a) of the Exchange Act [15 U.S.C. 78o(c)(6), 78q-1, and 78w(a) respectively].

List of Subjects in 17 CFR Part 240

Reporting and recordkeeping requirements, Securities.

Text of the Final Amendment

For the reasons stated in the preamble, Title 17, Chapter II of the Code of Federal Regulations is to be amended as follows:

PART 240 – GENERAL RULES AND REGULATIONS, SECURITIES EXCHANGE ACT OF 1934

1. The general authority citation for part 240 continues to read as follows:

Authority: 15 U.S.C. 77c, 77d, 77g, 77j, 77s, 77z-2, 77z-3, 77eee, 77ggg, 77nnn, 77sss, 77ttt, 78c, 78c-3, 78c-5, 78d, 78e, 78f, 78g, 78i, 78j, 78j-1, 78k, 78k-1, 78*l*, 78m, 78n, 78n-1, 78*o*, 78*o*-4, 78*o*-10, 78p, 78q, 78q-1, 78s, 78u-5, 78w, 78x, 78*ll*, 78mm, 80a-20, 80a-23, 80a-29, 80a-37, 80b-3, 80b-4, 80b-11, 7201 *et seq.*, and 8302; 7 U.S.C. 2(c)(2)(E); 12 U.S.C. 5221(e)(3); 18 U.S.C. 1350; Pub. L. 111-203, 939A, 124 Stat. 1376 (2010); and Pub. L. 112-106, sec. 503 and 602, 126 Stat. 326 (2012), unless otherwise noted.

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2. Amend § 240.15c6-1 by revising paragraph (a) to read as follows:

§ 240.15c6-1 Settlement cycle.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, a broker or dealer shall not effect or enter into a contract for the purchase or sale of a security (other than an exempted security, government security, municipal security, commercial paper, bankers' acceptances, or commercial bills) that provides for payment of funds and delivery of securities later than the second business day after the date of the contract unless otherwise expressly agreed to by the parties at the time of the transaction.

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By the Commission.

Brent J. Fields
Secretary

Date: March 22, 2017